

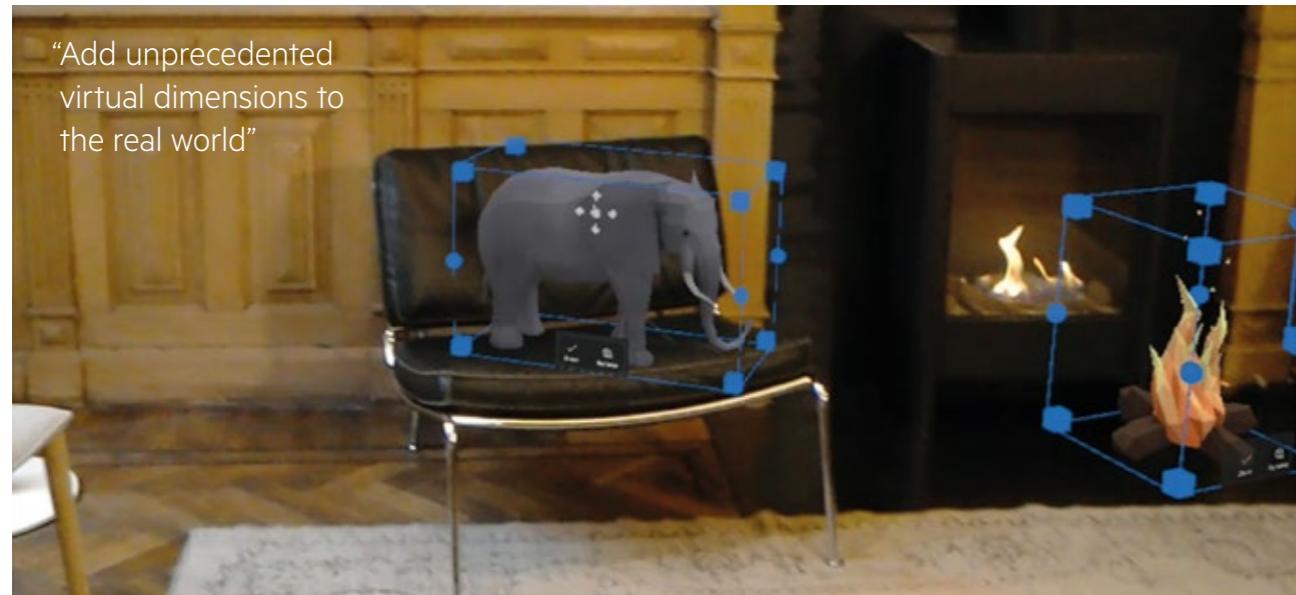
# KPN Integrated Annual Report 2016



Connected  
to the  
future



kpn



## Connected to the future

Virtual reality, remote health diagnostics, motion-based street lighting and self-driving cars. We're seeing things today that are changing our lives towards an ever-more connected future.

We make life more free, fun and easy by connecting people. It is our passion to provide safe, reliable and future-proof networks and services, enabling people to be connected anytime, anywhere, whilst at the same time creating a more prosperous and cleaner world.

With this Integrated Annual Report we look back at the past year. It helps us to understand the present, but also to look forward into the future. We can't predict the future, but we can imagine it, based on technological developments and views from internal and external experts. With these insights we can prepare the next generation of products and services for you.

Read more on page 18 and go to our online report for more information and video stories: [www.kpn.com/annualreport](http://www.kpn.com/annualreport)

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Connected to the future

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For an overview of our social and environmental figures, GRI index, risks and countermeasures, supply chain and tax strategy and policy, please see [www.kpn.com/annualreport](http://www.kpn.com/annualreport)

# About this report

## Transparency in financial, operational and CSR performance

We have prepared this Integrated Annual Report, in line with the International Integrated Reporting Council (IIRC) Integrated Reporting (IR) framework. For the CSR information included in this report we followed the Global Reporting Initiative (GRI) Standards - Option Comprehensive. In anticipation of national implementation of the EU Directive Non-Financial Reporting, we have considered the key elements of this Directive. We already address most of the elements to be in compliance with the new Directive. For more information on our reporting see Appendix 3.

KPN adheres to several reporting benchmarks, like the Dow Jones Sustainability Index (DJSI) and the Transparency Benchmark. Our ambition is to maintain a leading position in these benchmarks. This way, we keep improving our performance by comparing it with that of peers. An overview of KPN's performance in different indices during 2016:

- > Position 3 in the DJSI World Index and included for the fifth year in a row
- > Included in CDP's Climate A List
- > Position 9 in the Transparency Benchmark (TB)
- > First place in the Transparency International Netherlands index TRAC

> First place in the Sustainability Performance of the Dutch Association of Investors for Sustainable Development (VBDO) in the services sector.

## Our approach to reporting in 2016

In 2015 we reported on 30 material topics. For 2016 we improved focus and this resulted in a 'Core & More' approach. The report is built around our nine highly material topics (the Core). Additional information about other topics is available in appendices to this report or published online (the More).



THE °CLIMATE GROUP



## The topics that matter most to KPN and our stakeholders



Customer loyalty



Quality and reliability of networks



Innovation and investments



Economic value



Privacy & Security



Environmental performance



Impact of products and services



Compliance & Risk



Remuneration

> Introduction by the CEO

## Helping the Netherlands move forward through innovation

In 2016, we succeeded in taking further steps towards our ultimate aim of becoming the best service provider in the Netherlands. This entails not only striving for excellent products and services, but also by helping society move in a sustainable direction. We continued the upward trend - operationally, commercially and financially.

Customer satisfaction rose to a new all-time high; in 2016 we again showed we are successful at making life more free, fun and easy. We have potential to improve customer satisfaction levels even more. In line with the positive trends we evolved our strategy from 'strengthen, simplify and grow' to 'simplify, grow and innovate'. Major technological changes will help us to supply even better products and services to consumers, SMEs, corporates, government, organizations and the Dutch society as a whole. Furthermore, research shows that ICT is a crucial factor in making our society more sustainable. For me, it is extremely important that we contribute towards the development of our planet in such a way that it remains a fine place for our children and grandchildren. To implement our strategy faster we launched a new, functional organization at the beginning of 2016. Thanks to a flatter, simpler organizational structure we have increased our commercial agility and we are focusing our efforts directly on the quality of our service and on results.

### Consumer market continues to grow

The number of customers in the consumer market grew yet again. Subscriber numbers for our interactive television service broke through the two million barrier, giving us a market share of 30%. The Net Promoter Score (NPS) - our yardstick for customer satisfaction - rose further to +10 (Consumer Market) in 2016. Since we introduced quad play three years ago, more than one million households choose a combination of our fixed and mobile services. Improved propositions in the consumer market helped our mobile subscriber numbers increase by 92 thousand this year alone. KPN endorses the importance of total transparency by introducing new mobile combination subscriptions that comply with the Dutch Financial Supervision Act.

### Strengthening the Business segment

Just as in 2015 the Business segment remained challenging in a competitive domain. By making The New Way of Living and Working possible for an increasing number of businesses, and by introducing cloud, hosting and security services, we are gradually establishing our top market position as an ICT player. The extra investments we are making for that purpose are slowly but surely bearing fruit. The number of customers with multi-play services (combination of fixed, mobile and ICT services) is increasing and our new Managed Hybrid Cloud

service is growing too. This enables customers to store their own data, either in a KPN data center or in the public cloud. We are thereby responding to the data growth that is set to continue in the years ahead. Additionally, we continued to simplify our Business portfolio in 2016.

### On course financially

Our good operating and commercial performance in 2016 supported the basis for improving financial results compared to 2015. The stringent cost focus in all the segments and the ongoing simplification of our organization, systems and product portfolio contributed to this too. A structurally lower spend level amounted to EUR 460 million run-rate savings by the end of 2016 in comparison with 2013. In February, we also completed the sale of our Belgian subsidiary BASE Company.

### Innovative network technologies

Investing in fiber and upgrading the fixed network ensures that our infrastructure remains best-in-class. Thanks to 78% FttH/FttC coverage, at the end of 2016 75% of Dutch households had download speeds of at least 100 Mbps. Download speeds of 400 Mbps are available with the new technology VPlus. We are also continuing to optimize our 4G network, for instance with carrier aggregation and small cells that increase the data capacity and speed of 4G at places where a lot of people gather, such as stations and city centers. Earlier than planned, we have completed the roll-out of our LoRa network and as a result the Netherlands became the first country in the world with a nationwide LoRa network for Internet of Things (IoT) applications. Furthermore, we are also preparing for 5G, the new generation mobile Internet that will be indispensable for its numerous technological applications and will have a huge impact on our everyday lives. These include connected cars and remote healthcare, for which ultra-fast response times are crucial. We also simplified our fixed core network to match the growth in Internet and TV, to improve stability and improve costs and energy efficiency.

### The power of collaboration

We can realize our innovative ambitions only if we collaborate more intensively with other companies and organizations by entering into new partnerships. Our investment fund KPN Ventures is affiliated to COSTA, a platform on which 10 top Dutch companies share their experiences to achieve lasting

success quickly and smartly via innovation. By joining forces we are accelerating the development of ideas and applications that are of genuine benefit to our customers. For example, we invested in startups like SecurityMatters and EclectIQ, companies that supply cybersecurity services that add value to KPN and our customers. Other key partners for KPN include our suppliers and content providers.

### Enormous potential of ICT

The translation of the #SMARTer2030 research into opportunities for KPN and the Netherlands confirms that CO<sub>2</sub> emissions in the Netherlands can be reduced by nearly 40% by 2030 compared to 2015 thanks to ICT solutions. We see enormous potential in applying ICT in eHealth, transport and infrastructure, smart buildings and smart cities, as well as in The New Way of Living and Working, in which KPN aims to take a pioneering role. That's why we are converting several KPN offices into modern hubs that put the new way of working into practice. The findings of the #SMARTer2030 report dovetail perfectly with the Sustainable Development Goals of the United Nations, which regard ICT as a driver for a better, more sustainable world. KPN's efforts to achieve those targets are recognized by the Dow Jones Sustainability Index, in which we have been included for the fifth consecutive year and this time as the world's third most sustainable telecoms company. Additionally, our inclusion in CDP's Climate A List confirms that we have performed well in the area of energy consumption and CO<sub>2</sub> reduction targets. We have now been on the CDP list for six consecutive years, so we can justifiably call ourselves a world climate leader. These listings confirm in particular that we have successfully integrated our sustainability policy in our business operations.

Improving online security is another element of that policy which is a top priority for KPN. We monitor our ICT infrastructure and that of our customers 24 hours a day, seven days a week, 365 days a year. KPN aims to stay in the vanguard, not only by providing secure networks and systems, but also through continuous innovation. We have made our security policy and guidelines accessible to everyone.

### As TEAMKPN we help the Netherlands progress

Leading the way with timely innovations is one of our strengths, from the perspective of both our customers and of our employees, and also in organizational and financial terms. Every day KPN employees work hard and join forces to realize our ambitions. The employee engagement survey demonstrates that their willingness to go the extra mile is much higher than average. With dedicated, intrinsically motivated employees in a flexible organization we aspire to offer an even better customer experience, resulting in greater customer loyalty and pro-actively addressing needs in society. I am convinced that this will give us more commercial agility, increased sales and profitability and create greater value for all our stakeholders.

"The translation of the #SMARTer2030 research into opportunities for KPN and the Netherlands confirms that CO<sub>2</sub> emissions in the Netherlands can be reduced by nearly 40% by 2030 compared to 2015 thanks to ICT applications"

Read more about this topic at page 48



Eelco Blok - CEO

Watch Eelco share his views:  
[www.kpn.com/annualreport](http://www.kpn.com/annualreport)

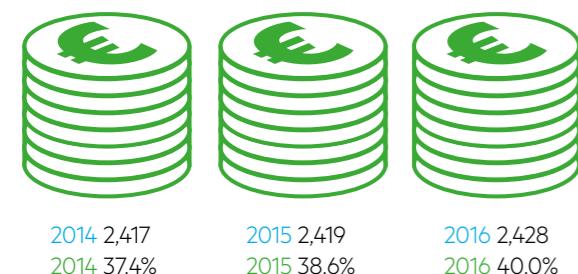
› Our main achievements

## Continued strong performance

Our continued upward trend - operationally, commercially and financially - is reflected in our main achievements below, a mix of financial and non-financial key figures and three-year trend. In line with our strategic focus areas, we give an overall impression of our performance in three financial, three customer-related and three operational key figures. These indicators also represent our highly material items Economic value, Customer loyalty, Quality and reliability of networks, Environmental performance and Impact of products and services.

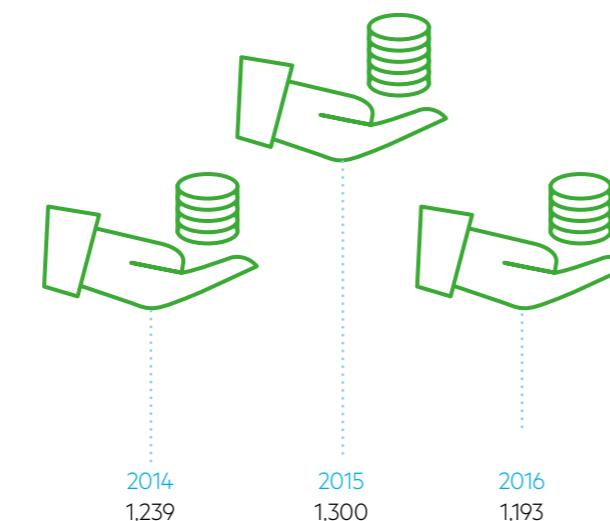
### EBITDA

■ Adjusted EBITDA<sup>1,2</sup> In millions of EUR  
■ Adjusted EBITDA margin The Netherlands<sup>1,2</sup>



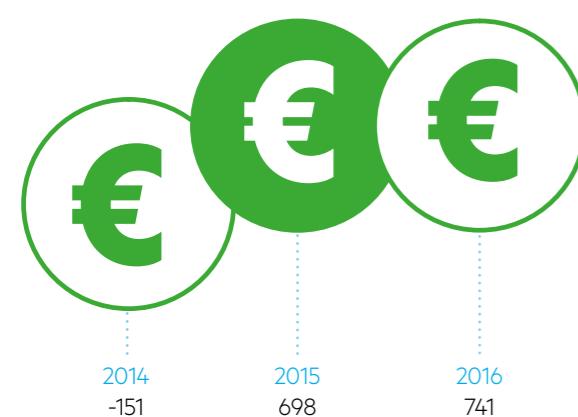
### Capital expenditure<sup>1</sup>

In millions of EUR



### Free Cash Flow<sup>1</sup>

In millions of EUR

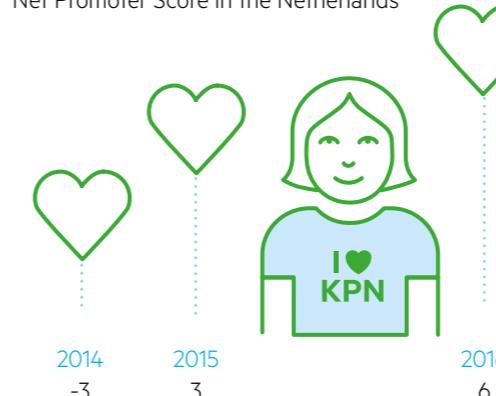


1 Based on continuing operations.

2 EBITDA adjusted for the impact of restructuring costs and incidentals.  
Reconciliations for 2015 and 2016 to be found in Appendix 1.

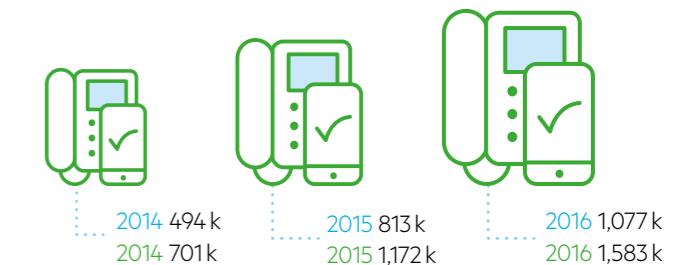
### Customer satisfaction

Net Promoter Score in the Netherlands



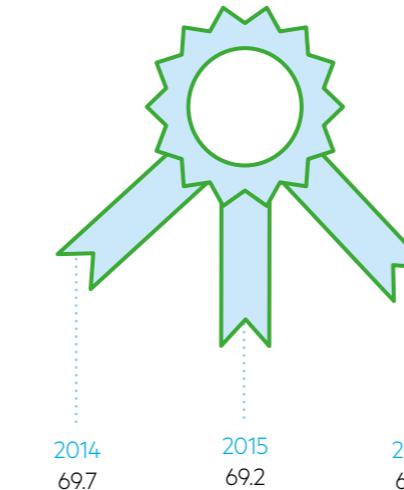
### Converged services

■ Households in fixed-mobile bundles  
■ Postpaid customers in fixed-mobile bundles



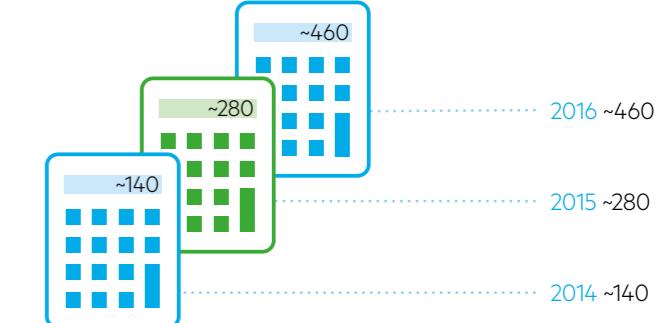
### Reputation

RepTrak pulse score



### Realized run-rate savings Simplification program<sup>4</sup>

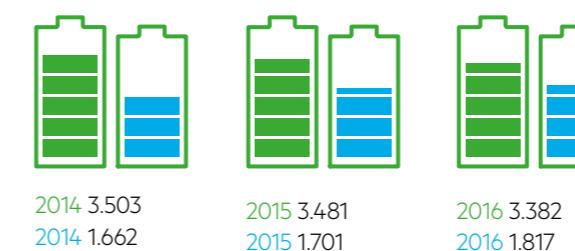
In millions of EUR



4 Cumulative savings since the end of 2013. Read more on page 30.

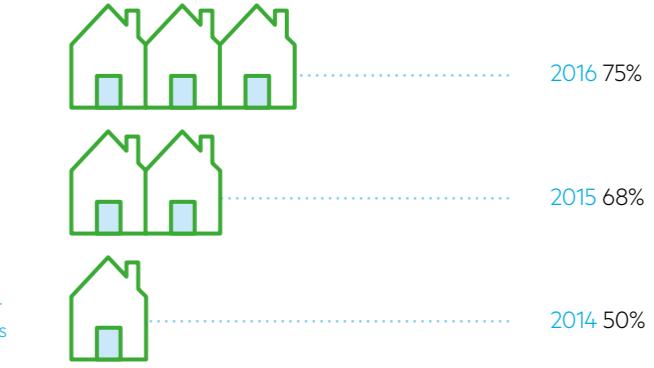
### Energy consumption In petajoule

■ Energy consumed by KPN  
■ Estimated energy consumption avoided by KPN customers<sup>3</sup>



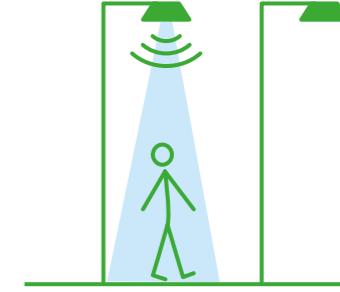
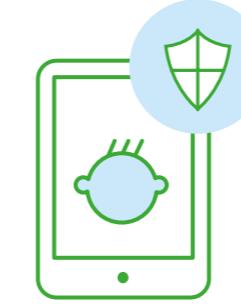
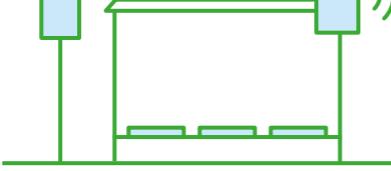
3 Estimated avoided energy consumption by customers from the use of our ICT solutions compared with KPN own energy consumption. These numbers have been restated for 2014 and 2015, read more on page 48 and 51.

### Households with > 100 Mbps coverage



> Review of the year

## What we did in 2016



### January

- > KPN started to issue NFC-enabled SIM cards to support the expansion of mobile payments starting with the Rabo Wallet
- > iBasis partnered with Cubic Telecom to enable 'next gen' roaming for connected cars and future Internet of Things services

### February

- > KPN completed sale of BASE Company realizing a book gain of EUR 369 million
- > KPN deployed next generation small cells
- > Significant reduction of CO<sub>2</sub> emissions possible with smart ICT solutions says #SMARTer2030 report

### March

- > KPN enhanced customer support by extending LiveChat to 24/7 coverage
- > KPN took strategy to the next level by adding 'innovate' to 'grow' and 'simplify'

### April

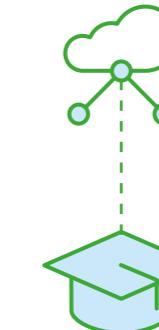
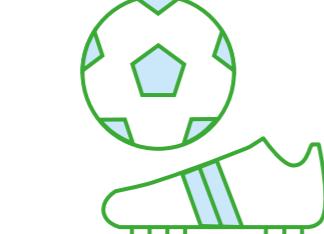
- > KPN announced that the KPN ToZ office in Rotterdam will become the new headquarters
- > KPN released MyBee app enabling young children to safely take their first steps online
- > KPN acquired remaining 87.5% stake in RoutIT, obtaining full ownership

### May

- > KPN's Simplification program won 'Business Transformation of the Year' Award
- > KPN introduced new Managed Hybrid Cloud proposition

### June

- > KPN completed rollout of first nationwide LoRa network in the world for the Internet of Things
- > KPN won a large contract to migrate the City of Amsterdam to KPN's Managed Hybrid Cloud
- > KPN declared capital repayment of EUR 28ct per share



### July

- > KPN received Digitenne license until 2030
- > Partnership between the Dutch Rijksmuseum and KPN was prolonged by three more years

### August

- > KPN and Fox Sports reached an agreement regarding distribution of live football
- > KPN announced eurobond and tender offer

### September

- > KPN launched new mobile subscriptions that include EU roaming as part of premium bundles
- > Nationwide outage on fixed internet services resolved after six hours

### October

- > KPN reached the one million households milestone for its converged fixed-mobile products
- > KPN again world leader in CDP climate change benchmark

### November

- > KPN won European tender as ICT partner for partnership Talking Traffic
- > KPN selected as cloud service provider for Dutch education and research institutions

### December

- > KPN's innovation to reduce energy wastage in Aalsmeer data center won Sustainable Data Center Award
- > KPN trialled new Internet of Things technology LTE-M, resulting in lower energy use and lower prices

› Our purpose

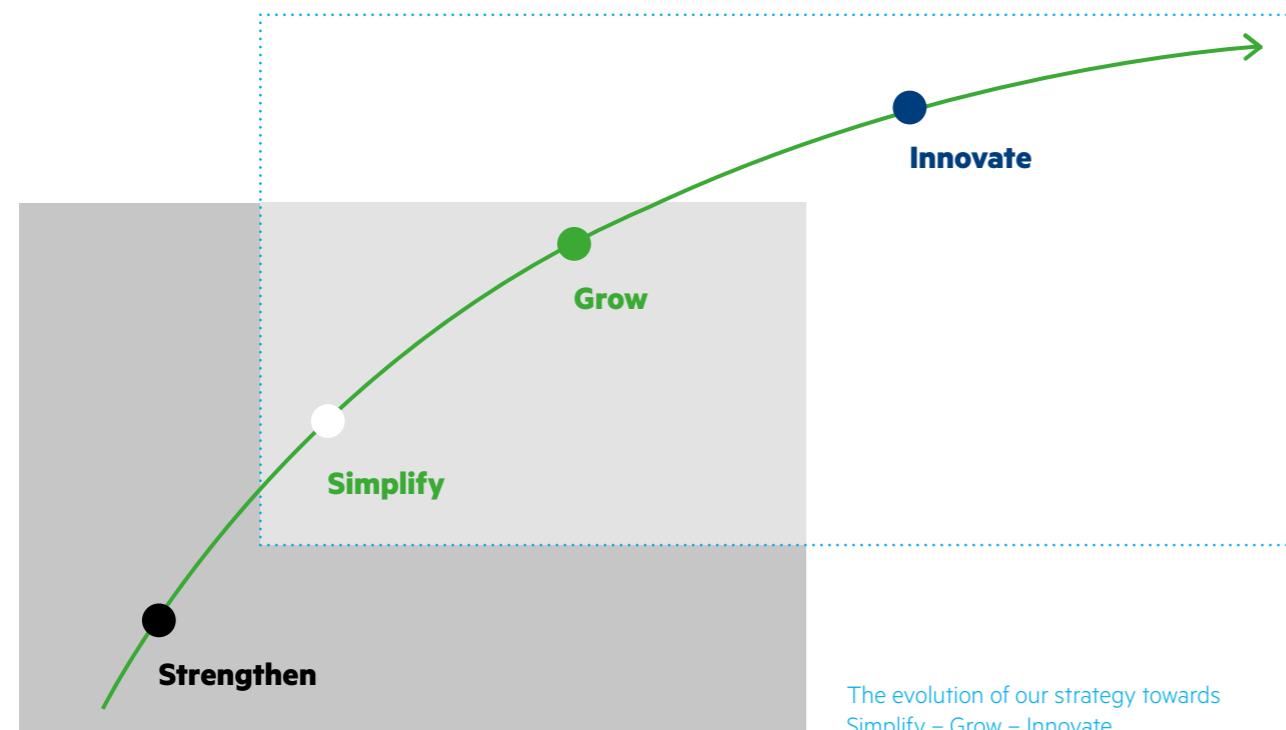
## We make life more free, fun and easy by connecting people

KPN is a company that really puts its customers first. We believe it is great to work for a company that is at the heart of society and drives and enables technological progress for everyone. Connecting people and making their lives more free, fun and easy has been our drive and we will continue to do so. We were there when the very first telephone poles were erected 130 years ago, enabling connection. Ever since, we have worked hard to meet the current and future needs of our customers and society, which also means connecting things. Adapting new developments, building and managing innovative fixed and mobile networks and IT platforms help fulfill those needs.

### Simplify, Grow and Innovate

In the past years we invested ahead of the curve to build best-in-class networks and innovated to bring Dutch households and businesses great products and leading quality of service.

The coming years will see exponential growth of connected devices and surging data traffic. To stay ahead, we evolved our strategy in 2016 to the next level with the pillars Simplify - Grow - Innovate. We formulated clear goals on every pillar (for more information see page 16 – Strategy table) that help us on our journey to become the best service provider in the Netherlands and deliver value to our stakeholders.



### Our stakeholder approach

On top of our own assessments of the role and value of ICT for society, our continuous dialogue with our stakeholders gives us greater insight into social trends and needs. It also enables us to exchange ideas about the topics we think KPN can make an important difference for Dutch society. Our key stakeholders include retail and business customers, employees, investors, suppliers, government, regulators and community organizations. The opinion of our stakeholders is taken into account in our strategic decision making. Read more about our different stakeholders in our stakeholder overview in Appendix 9.

### Our services for Dutch society

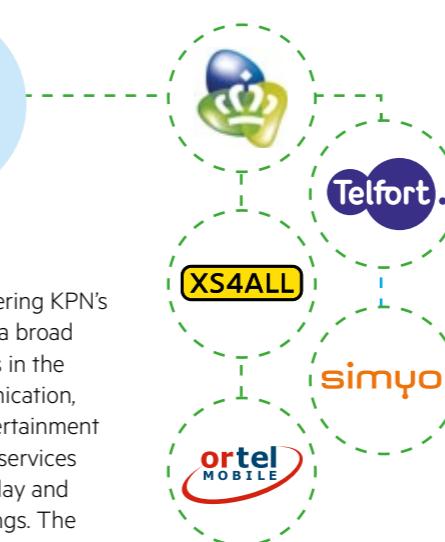
Accessing the Internet from a tablet, paying with a smartphone, consulting a doctor remotely or working online. Documents, photos and videos are now mostly stored in the cloud, not on a hard drive anymore. These things are easily taken for granted and we can no longer do without them. The world is increasingly mobile and digital. Technology is advancing at a rapid pace. KPN helps make the necessary connections. We have added fiber and 4G to our existing fixed

and 2G/3G networks in previous years. With our LoRa (Long Range Low Power) network we are enabling energy-efficient connections that will permanently connect people and devices to the Internet and each other. Our services are the beating heart of the Netherlands. We enable the country's digital pulse. Vital sectors such as transport, healthcare, education, the police and defense force depend on our infrastructure and our networks. We want to be there for everyone. Also those for whom contact with the outside world is not a given.



#### Consumer

Dedicated to offering KPN's retail customers a broad range of services in the areas of communication, information, entertainment and commercial services through single play and multi-play offerings. The offered services include fixed and mobile telephony, mobile data, Internet and TV.



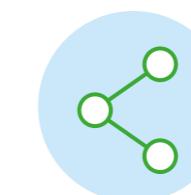
#### Business

KPN offers its business customers (small, medium-sized, large enterprises) a complete portfolio of services from fixed and mobile telephony and Internet to a range of end-to-end solutions in infrastructure, workspace management, cloud, security, data network and data center services.



#### Network, Operations & IT

Responsible for KPN's operational activities for the Dutch networks (both fixed and mobile) and ICT infrastructure for services provided to KPN's consumer, business and wholesale customers.



#### Wholesale

Provides connectivity solutions to KPN's fixed and mobile wholesale partners via KPN's fixed, fiber and mobile networks.



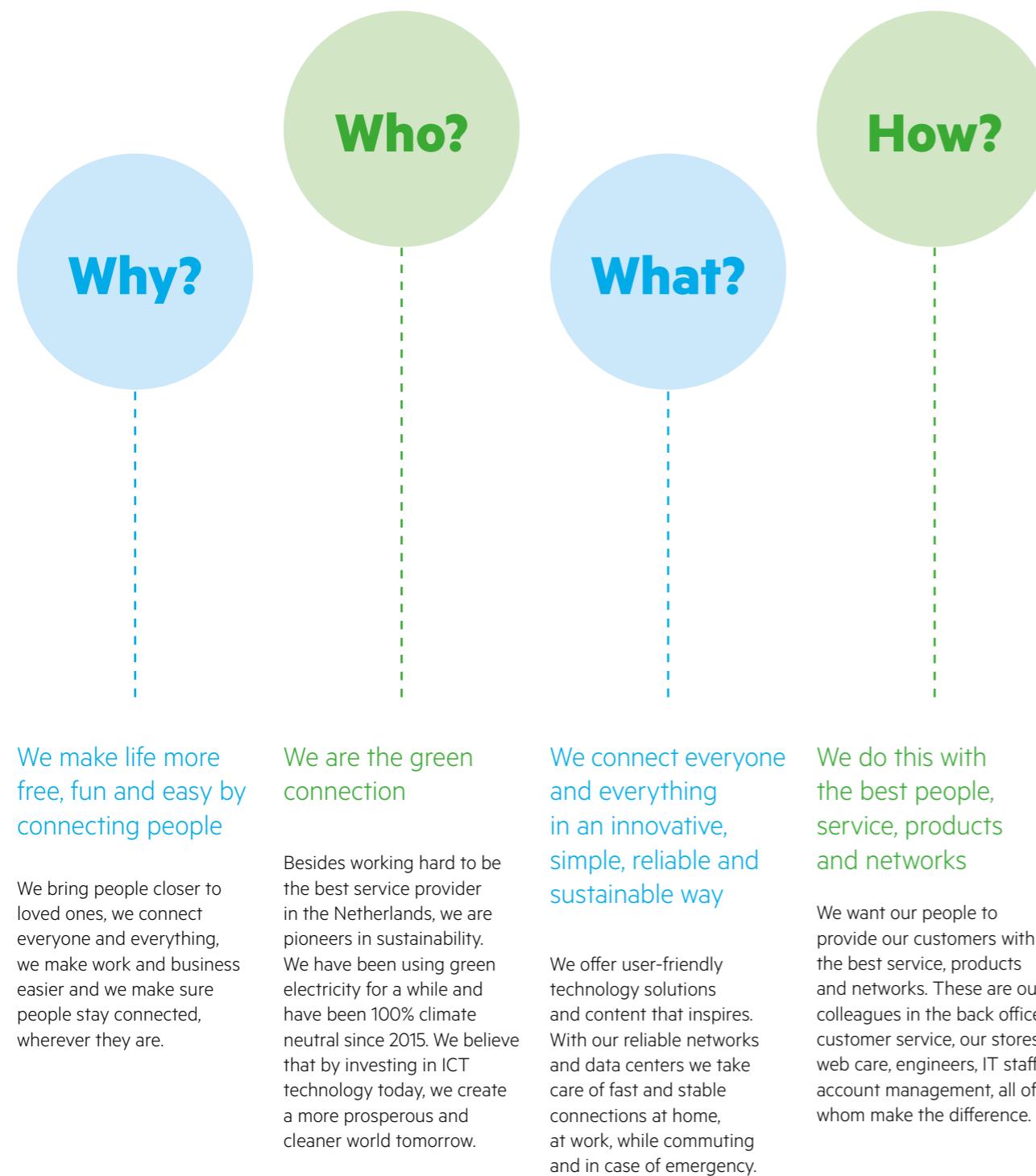
#### iBasis

Through iBasis, KPN is a leading player in the international wholesale voice market in terms of minutes carried. iBasis offers a comprehensive portfolio of voice termination and data services for many of the world's largest fixed and mobile operators, as well as voice-over-broadband.

## › Our purpose

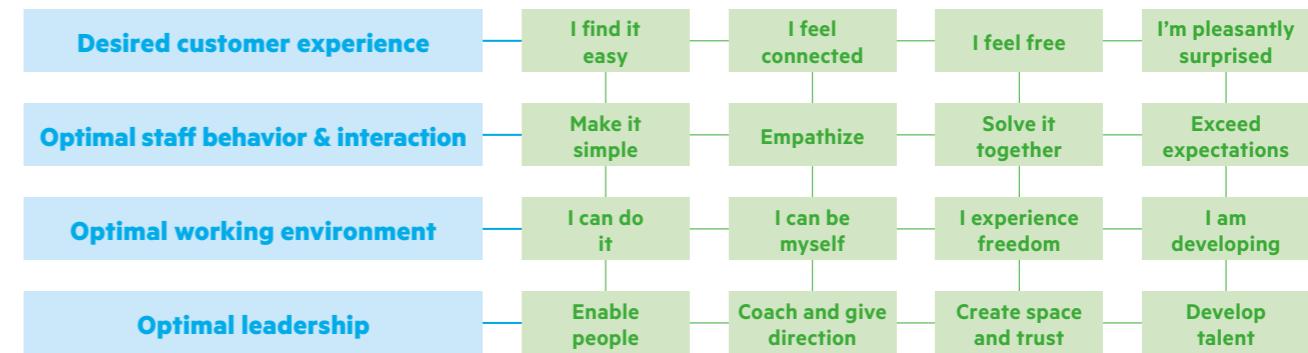
**Our Greenprint**

To stay successful in the future, we sometimes have to reconsider why we exist and why we are important to Dutch society. Last year we engaged our employees in a process to establish our so-called 'Greenprint'. On that Greenprint, we formulated our 'why', as summarized in the graphic below.



In our Greenprint we also articulate our intended customer experience and what we expect from all colleagues to realize that ambition. We have introduced a process of reverse thinking, taking the customer's experience as the starting point,

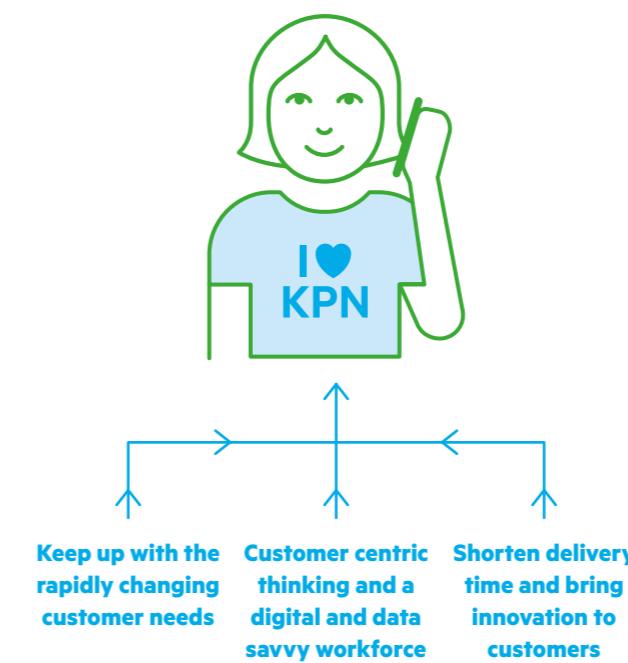
to provide practical guidance. The approach is based on placing ourselves in the shoes of a KPN customer and being aware of each individual employee's influence on the customer's experience in any KPN department.

**Becoming the best service provider**

Good customer service starts with motivated employees who want to go the extra mile and we see the customer as the starting point for all our actions and decisions. KPN needs employees with passion and expertise and who are willing to work together to get the very best results. To promote this culture, a team of KPN eXperience coaches activate real conversations about this theme in the business. We also selected more than 200 KPN eXperience ambassadors who guide their teams towards a better customer experience.

Another way is to inspire management to discuss customer centricity in their teams and help them find interventions that fit the needs of these teams to maximize the impact. In 2016, 32% of the business teams started with these KPN eXperience sessions.

So far, we are making good progress since loyalty of KPN customers is at an all-time high and we managed to improve our reputation benchmark position (for more information see page 22 - chapter Customer loyalty). Nevertheless, we are focused to keep on improving ourselves.

**Digital transformation**

One of the major challenges we face and act upon is digitalization. In this day and age we believe KPN can only become the best service provider by delivering an excellent digital customer experience. From a customer, workforce and innovation perspective, digitalization is a must-win battle. Therefore three challenges are crucial for us, as included in the graphic on the left.

Digitization changes the lives and expectations of our customers and employees. This requires the next level of digital and data savviness. Our organization is therefore transforming into a digital organization. In the coming years KPN employees will become even more digital and data savvy and predict and act on customer needs more proactively. In that sense we will be the digital enablers that make the life of our customers more free, fun and easy.

> Our organization and the value we create

## KPN in Dutch society

KPN connects its customers anytime, anywhere. By doing so, we create value and have an impact on many areas of society. We continuously build and improve our networks and services to offer the best connectivity and solutions.

We are bundling our fixed, mobile and IT propositions: telephony, TV, Internet and IT services for households and businesses. Furthermore, we are expanding fiber penetration and our network of antennas for increased capacity and download speeds. We do this with our suppliers, who deliver the technical equipment and green electricity to run our network. Employees play a vital role, since their skills are indispensable for responding to customer needs and questions.

On this page we have visualized our organization to emphasize our impact on Dutch society. On the left we show what capitals (input) we need to develop and offer our products and services (activities and output). On the right we show the value we create (outcomes). These outcomes are linked to our material topics, which we report on page 20 and refer to chapters with more detail on the value created and shared.

### We are the green connection

We consider every day as an opportunity to do better. Also when it comes to tackling climate change, we are on the right track in setting the standard for transitioning to sustainable growth. KPN is the green connection and ranked among the most sustainable telecommunications companies in the world. We seek to connect everybody and everything in an innovative, simple, reliable, secure and sustainable manner. In doing so, we strive to continuously use less and cleaner energy and help our customers reduce their own energy use.

Society needs to step up investments in ICT if we want to safeguard the quality of life we enjoy today. In the next 15 years, the world is expected to invest around USD 90 trillion, or USD 6 trillion a year in infrastructure, according to the New Climate Economy. That means we have a historic opportunity today to build the infrastructure of tomorrow. This enables the reduction of the use of natural resources, building of smart cities and ensures a successful transition to sustainable economic growth. At KPN, we believe that by investing in ICT technology today, we create a future that is more free, fun and easy.

## Input

Our valuable assets:



Skilled employees



Financial resources



Key partnerships and customer insights



Network and customer equipment



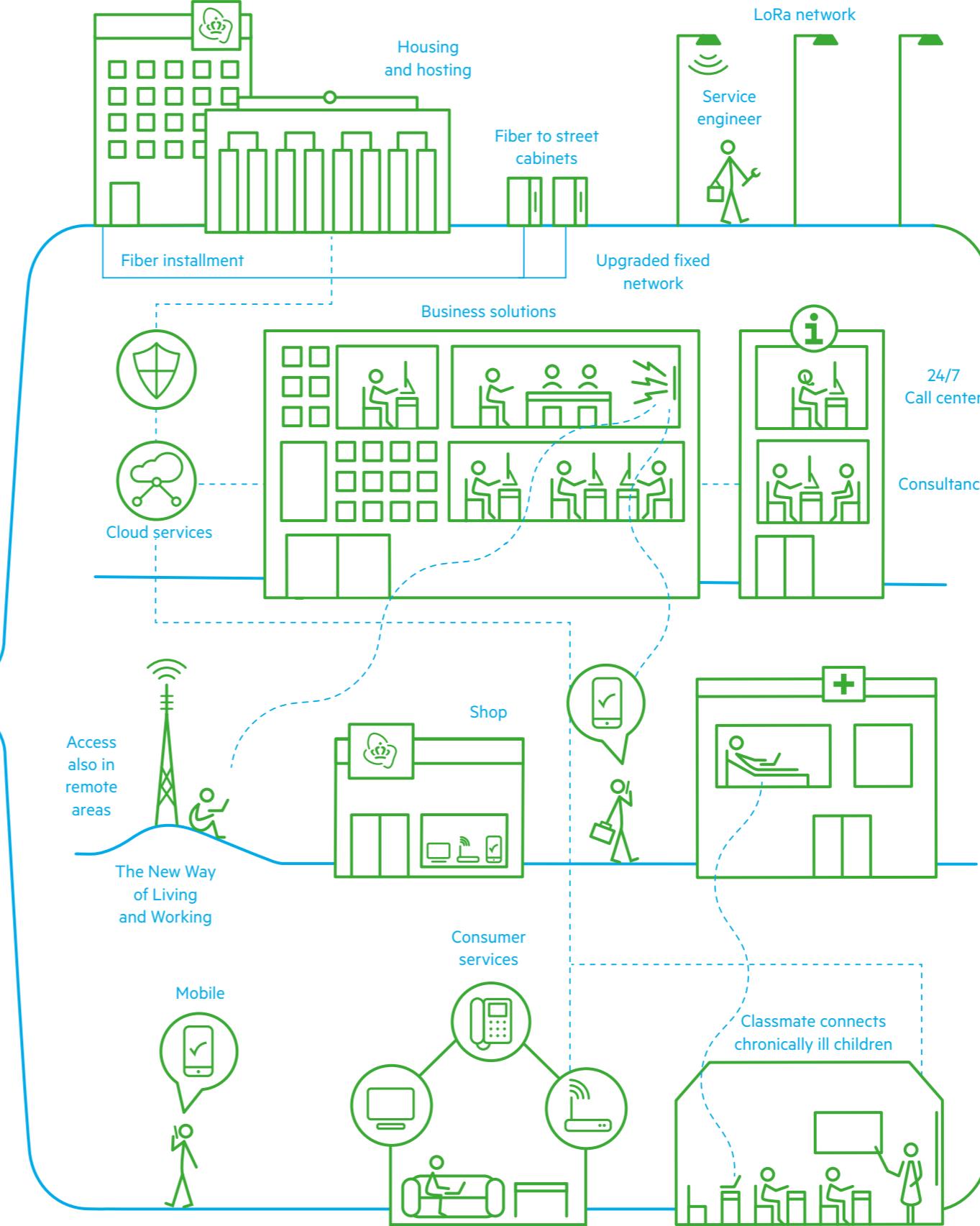
Mobile licenses



Green energy

## Activities and Output

KPN provides integrated access services:



## Outcomes

The value KPN creates:



Connected anytime, anywhere, see p. 24



Innovation through digitization, see p. 26



Accessible, affordable and scalable healthcare, see p. 48



Lower-carbon society, see p. 44



Safe and secure access for communities and businesses, see p. 40

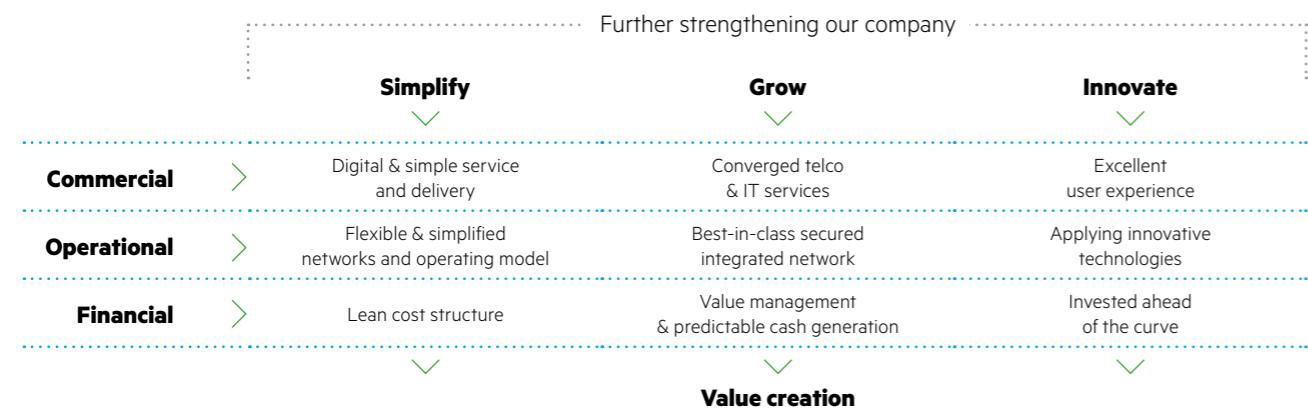


Profitable business resulting in sustainable shareholder returns, see p. 28

› Our strategy

## Simplify - Grow - Innovate

Our strategy is based on our market position, technology and developments in the world around us. In 2016 we evolved our strategy to the next level to further strengthen our company. In the table below we present our strategic choices per pillar: Simplify – Grow – Innovate and per business area.



These nine strategic choices are embedded in our organization and create value for all other stakeholders, both in combination and separately. Our six strategic priorities translate into KPN's medium-term ambitions for the coming two to four years:

Strategic priorities	What we will do	Our output in 2016
1 Accelerate up- and cross-sell in bundles	<ul style="list-style-type: none"> <li>› Continue successful bundling strategy</li> <li>› High value for customers via best-in-class products and services</li> <li>› Improve customer loyalty</li> </ul>	<ul style="list-style-type: none"> <li>› NPS NL increased to +6</li> <li>› More than 1 million households with fixed-mobile packages</li> <li>› Migrations to integrated solutions in Business</li> </ul>
2 Grow in TV and IT services	<ul style="list-style-type: none"> <li>› Deliver best-in-class IPTV services through differentiated functionalities and leading network</li> <li>› Scale up successful new service introductions and invest in growth companies</li> </ul>	<ul style="list-style-type: none"> <li>› Highly appreciated IPTV service with NPS of +17</li> <li>› Reached 2 million IPTV customers in 2016</li> <li>› Introduced Managed Hybrid Cloud</li> </ul>
3 Finalize business transformation	<ul style="list-style-type: none"> <li>› Strengthen business market portfolio and customer relationships</li> <li>› Implement customer satisfaction programs</li> <li>› Highly sustainable business for KPN and our customers</li> </ul>	<ul style="list-style-type: none"> <li>› Strong improvement NPS</li> <li>› Growth integrated solutions (KPN ÉÉN)</li> <li>› Increased order intake in LE &amp; Corporate by 14% in 2016</li> <li>› Introduced successful services for the healthcare sector</li> </ul>
4 Finalize build of flexible and simplified integrated network and operating model	<ul style="list-style-type: none"> <li>› Further automation and virtualization of networks and reduce our environmental footprint</li> <li>› Stay climate leader</li> <li>› Further quality improvements to lead to EUR 300 million in simplification savings in 2017-2019</li> </ul>	<ul style="list-style-type: none"> <li>› Energy efficiency of our networks improved by 33%</li> <li>› CDP award and DJSI World inclusion</li> <li>› First wave of Simplification program completed: ~EUR 460 million run-rate savings vs. end-2013</li> </ul>
5 Ensure best customer experience and engaged employees by deploying innovative technologies and increasing fiber penetration	<ul style="list-style-type: none"> <li>› Continue change programs and digital transformation</li> <li>› Further strengthen core network and fixed and mobile network capacity</li> <li>› Continued hybrid access rollout in Business and selected Consumer areas</li> </ul>	<ul style="list-style-type: none"> <li>› Completed rollout of nationwide LoRa network</li> <li>› High FttH/FttC coverage 78% allows KPN to deliver next generation access to majority of Dutch households</li> <li>› About 500 teams of employees joined the KPN eXperience</li> </ul>
6 Optimize financial framework and grow dividend	<ul style="list-style-type: none"> <li>› Solid financial profile</li> <li>› Sustainable shareholder returns</li> </ul>	<ul style="list-style-type: none"> <li>› Growing Free Cash Flow</li> <li>› EUR 1.2 billion capital repayment</li> <li>› Regular dividend growth</li> </ul>

## Our market position

We continuously look at the world around us to analyze trends and changing needs. Over the past year, we saw the following developments as being most relevant, considering our role in society as a leading supplier of ICT services.

### Important trends

- › There is an increased awareness of societal changes such as the aging population and global challenges from poverty to climate change and the role of ICT to address the challenges.
- › The macro-economy of the Netherlands is stabilizing and the Dutch IT market is growing.

- › Customer behavior is changing towards digital life.
- › The Netherlands has a high quality digital infrastructure and this is the foundation, enabler and driver of innovations in every sector of the emerging digital economy.

### How we act on our strengths

- › Leveraging our integrated services to provide attractive combinations of fixed, mobile and IT for our customers.
- › Maintaining developed and advanced telecommunications networks in the Netherlands to provide high quality service, including critical communication.
- › Leveraging our leading position in telecom services to grow market share in IT, innovating to add cloud-based services and grow our customer base.
- › Building on our strong competences in network and cyber security to protect our customers' data.
- › Using a lean operating model to drive a structurally lower cost base.
- › Keep our highly skilled and motivated employees engaged.

### How we want to improve

- › Simplifying our portfolio to make it more transparent for our customers, offering a smaller variety in products and services.
- › Simplifying our IT systems and processes to further improve the quality of the customer experience and reduce costs.
- › Continuing simplification of our organization to allow us to respond faster to changing market conditions.
- › Digitizing our operations and the way we provide services, putting our customers central in design and implementation.

### How we seize opportunities

- › Responding to the increasing demand for data and network access by developing new ways to communicate, collaborate and consume media.
- › Developing and testing innovative, scalable solutions that address social challenges arising from trends like climate change, urbanization and the aging population.
- › Monitoring technological developments in infrastructure, software and virtual networks to improve the efficiency of our operations or implement new services.
- › Collaborating with a diverse range of service providers and connecting to startup companies, to enhance our capabilities to innovate.

### How we face our challenges

- › Differentiating ourselves from competition through innovative products and integrated services and by providing the best customer service.
- › Continuously investing in our capabilities and putting cyber security at the core of our business, to keep our networks safe from information security threats.
- › Finding the right balance between network investments in anticipation of new technologies and possibilities for monetizing these.
- › Staying on top of disruptive technologies and business models by continuously monitoring new developments and cooperating or co-creating with selected providers of 'over-the-top' services.

>Connected to the future

## How we prepare for the future

KPN plays a role in shaping the technological progress of Dutch society. That's why we think about – and act on – the possibilities of the future. While we cannot predict the future with any certainty, we can imagine what it could look like and to a certain extent foresee how it might unfold.

In a future characterized by robotics, nanotechnology, biotechnology and artificial intelligence, new technologies will enrich and certainly change our lives. The question is how we adapt to that.

Three major developments have fundamentally changed our industry in the past decades: the introduction of mobile phones, the Internet and digitization. Digitization in particular is continuing to drive rapid change across various sectors. In addition, consumer needs have shifted. There is a desire for simpler products and services, anytime and anywhere. The major changes that are currently taking place in society and business require a high level of systematic future-oriented thinking. KPN is proactive and does not just react to the developments and disruptions that we are facing. In the past five years this new way of thinking has become part of our business approach.

We are benefitting from our simplification program and the integration of our fixed and mobile networks. This has led to a more powerful core network that is ready for the increasing demand for online data services. It allows us to connect with others, such as IoT companies, and to enrich our partnerships, like the mobile experience we offer Fox Sports subscribers. One of our strengths is that our technical 'intelligence', e.g. on IPTV services, is stored in the cloud and not in a set-top box. This simplifies the upgrade process, gives us a competitive edge and reduces the environmental footprint of our customers. And as our fiber roll-out and fixed network upgrade progress we are providing fast, stable and secure access to the digital world and creating a solid platform on which sectors such as healthcare can further enhance their services.

Partnerships are essential for us. It's about how we can develop new products and services quickly. A good example is our IoT Academy, where we innovate with startup companies on ways to use the Internet of Things. It is very helpful that there is a large population of early adopters in the Netherlands where we can easily test new services, to speed up the time to market.

This outside-in approach defines the new way of working at KPN. More than ever we are looking ahead and seeking ways to innovate. To a large extent, innovation for us means a smarter organization of our network and processes to

integrate outside applications. In that sense, adding skilled people to our business is becoming more important. This thinking is powered by our innovation initiatives KPN New Business, KPN Ventures and KPN Technology Labs.

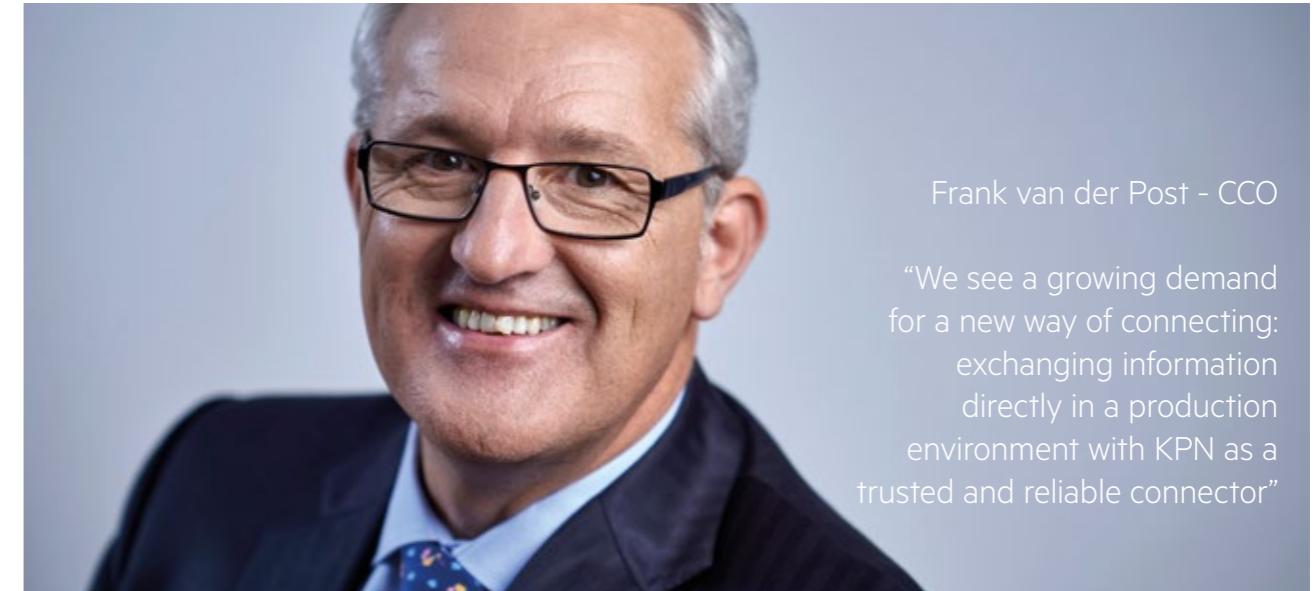
While new technologies can lead to great progress for society, there will also be downsides. What are the side effects of always being connected? What will happen to the eight-hour work day? How do we protect privacy and data security? And what will happen to education as we know it? Read and see more about these questions in this Integrated Annual Report and in the videos online.

In our online Integrated Annual Report we elaborate on future developments. In 14 videos we present the views of our colleagues and external experts on 12 technologies that are on our radar.

Please visit [www.kpn.com/annualreport](http://www.kpn.com/annualreport)

Jan Kees de Jager - CFO

"Our solid financial position allows us to invest in innovation, partner with agile and innovative startups and stay on the forefront of new technological developments"

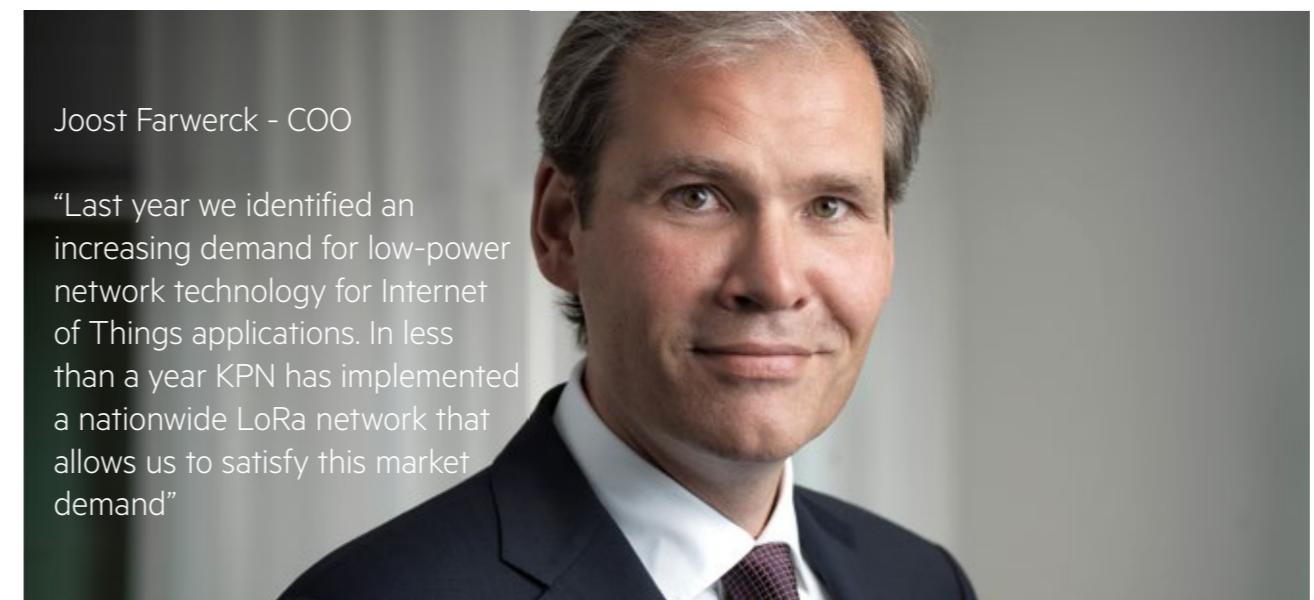


Frank van der Post - CCO

"We see a growing demand for a new way of connecting: exchanging information directly in a production environment with KPN as a trusted and reliable connector"

Joost Farwerck - COO

"Last year we identified an increasing demand for low-power network technology for Internet of Things applications. In less than a year KPN has implemented a nationwide LoRa network that allows us to satisfy this market demand"



› Material items

## What matters most to our stakeholders and KPN

At KPN, we pro-actively search for opportunities that utilize the full potential of ICT to support society in addressing its short- and long-term needs and challenges. We annually investigate and discuss what matters most to our stakeholders, and to us. This chapter presents the core information on the nine topics we judged to be highly material in 2016, while the rest of this report provides more information about each topic. The majority of the highly material items contribute to bringing the Netherlands onto a sustainable path. We are committed to the global priorities and aspirations of the UN, as set in its Sustainable Development Goals (SDGs) for 2030.



### Customer loyalty

#### Involving our customers in improving their experience

- › NPS NL improves to 6 (2015: 3).
- › Major NPS improvement on Business: -3 (2015: -10).
- › KPN wins the industry-adjusted ranking award for reputation awarded by the Reputation Institute.
- › Named ICT-infrastructure supplier of the year by Computable.
- › KPN declared Sponsor of the Year for the third time in six years at the SponsorRingens awards.

[Read more on page 22](#)



### Quality and reliability of networks

#### Continuous investment in high-quality and reliable networks

- › Simplified our fixed core network to match the growth in Internet and TV, to improve stability and improve costs and energy efficiency. IPTV content is now for a large part recorded and stored locally, which prevents traffic to central locations.
- › Lab test proved constant speed of more than 1 Gb/s on 4G due to stacking frequencies.
- › Started rollout of voice over LTE.
- › Rollout of small cells to live up to customer expectations with regards to 4G quality.
- › 78% FttC/FttH coverage.

[Read more on page 24](#)



### Innovation and investments

#### Giving people today what they need tomorrow

- › Completed the rollout of the world's first nationwide LoRa network for Internet of Things applications.
- › KPN's scale of corporate startup collaboration awarded top 10 ranking in European Corporate Startup Star.
- › Improved iTV app and introduced Managed Hybrid Cloud.

[Read more on page 26](#)



### Economic value

#### Stabilizing financial performance and a solid financial position

- › Adjusted EBITDA stabilized, supported by cost savings related to Simplification program.
- › Growing Free Cash Flow.
- › Announced second wave of the Simplification program for the coming three years from 2017 to 2019 having successfully completed the first wave in 2016.
- › Further optimized our debt portfolio via a successful bond tender and new bond issue.

[Read more on page 28](#)



### Privacy & Security

#### Keeping data private, safe and secure

- › Made KPN's security policies and several tools for security professionals open source in a free iPad app including the Common Vulnerability Scoring System and Potential Harm of Security Incidents calculator.
- › Launched children's app MyBee, enabling 2- to 6-year-olds to safely take their first steps online.
- › Successful test completed on innovative high security Quantum Key Distribution (QKD) link between The Hague and Rotterdam data centers.

[Read more on page 40](#)



### Environmental performance

#### Climate leader

- › Total energy consumption reduced by 20% since 2010 despite strong growth in data communications volumes.
- › KPN again recognized as one of the top 10 most sustainable telcos worldwide in the Dow Jones Sustainability Index.
- › KPN pronounced 'Global Climate leader' for the sixth consecutive year by CDP.
- › KPN wins Sustainable Data Center award from DatacenterDynamics EMEA for our sustainable solution for reducing the energy of backup power supplies in our data centers.

[Read more on page 44](#)



### Impact of products and services

#### Offering ICT solutions for 21st century challenges

- › Customers saved more than 146,000 tons CO<sub>2</sub>e emissions and EUR 60 million using our services in 2016.
- › New automated external defibrillators (AEDs) in the Netherlands are monitored 24/7 via LoRa and M2M connectivity. It is our ambition to connect all registered AEDs to ensure that they are in place and work when needed.
- › Launched KPN Messenger to securely exchange information in the healthcare sector.
- › One Planet Thinking study by Ecofys showed the positive impact of telecom services outweighs the negative impact of the telecom infrastructure 180 times for CO<sub>2</sub> emissions, 50 times for particulate matter and 280 times for fossil depletion.

[Read more on page 48](#)



### Compliance & Risk

#### Safeguarding value

- › Completely revised and simplified, principle-based KPN Code of Conduct, including KPN Corporate Social Responsibility.
- › New compliance and integrity e-learning Spot On rolled out to all KPN employees.
- › New and extended ISO certifications for Business: ISO 9001:2015, ISO 27001:2013, ISO 22301:2012, ISO 20000-1:2011, ISO 14001:2004, NEN7510.
- › KPN ranked first in Transparency International Netherlands' list of anti-corruption programs, transparency and country-by-country reporting.

[Read more on page 52](#)



### Remuneration

#### Fair rewards for all

- › Remuneration reflects operational performance.
- › Solid collective labor agreement in place with a considerate social policy.

[Read more on page 78](#)



&gt; Customer loyalty

## Involving customers to improve their experience

Customer loyalty is built on the quality of our products and services, customer satisfaction and the value we deliver to society. A good reputation attracts and retains customers, employees and business partners. The extent to which people recommend us is a good indicator of how well we are doing.

KPI	Result 2015	Result 2016
NPS Consumer Mobile	9	10
NPS Consumer Residential	9	10
NPS Business	-10	-3
NPS NL	3	6

### Reputation

In 2016, we moved up eight places to number 14 in the Reputation Institute's ranking of the 30 largest companies in the Netherlands. We also received an award from the Reputation Institute for having the highest industry-adjusted ranking in 2016. Our annual reputation (69.5) in 2016 is very high compared with the industry average in the Telecom sector. Compared with the European Telco Industry in 2016, we are currently among the top five.

We are seeing continued growth in our consumer customer base. Customer loyalty is at an all-time high. The most impactful drivers on reputation and supportive behavior towards KPN include: good value for money, high quality products, meeting customer needs, and being open and transparent.

### Customer loyalty

To remain attractive to existing and new customers, we continued to simplify our products and processes in 2016 and focused on providing an excellent customer experience. We improved various customer journeys using a human-centered design approach, involving customers in identifying and realizing improvements. For example, we invited companies we partner with to help us map Customer Journeys and validated the outcome with representatives from Large Enterprises. We also asked young couples to share their

experiences of moving in together, which we used for context to map the relevance of KPN at this life-changing moment.

In 2016, we extended our installation services to customers' homes. We included a WiFi check in the installation process, so that we can improve the signal 'on the spot' if necessary. We also improved our online service tools for existing customers so they can easily get advice on how to increase their in-home Internet speed ([kpn.com/snelheid](#)) and improve their WiFi connectivity ([kpn.com/wifi](#)). We improved online and call center support to solve (InHome) problems ([kpn.com/storing](#)). In 2016, we saw a 27% drop in customer calls about in-home connectivity issues.

We invested in better coverage of the network, which resulted in fewer dropped calls. We also ensured connectivity at busy events and festivals by temporarily increasing our network capacity and placing extra antennas. We continued to invest in the stability of our networks. If a failure occurs, we now keep customers updated about the timing and duration of outages or repairs by email, text messages, online and social media. Customers really appreciate this and we receive fewer queries. For small and medium-sized enterprises, we introduced the SME Sales & Service Desk. Here, customers experiencing technical issues are connected to a multi-skilled service employee with a high first-time solving rate.

### Customer feedback

To become the best ICT service provider, we continuously seek our customers' feedback to improve our products and

services. We do so by applying 'closed loop feedback' (CLF) i.e. ask customers about their satisfaction after their interaction with call centers, retail shops or engineers in the field and act on their feedback.

We closely monitor our customers' satisfaction and loyalty through NPS. In Consumer the NPS improved slightly in 2016 after a big increase in 2014 and 2015. We saw the biggest increase in NPS in Business. By conducting research among our freelancer and independent contractor customers, we got a better insight into their needs and wishes. Especially the NPS of our freelance customers increased from -12 to -4 in 2016, due to a higher appreciation of service drivers. Billing is still an important point for improvement. Several initiatives have started in Business to streamline this process. With the use of new software we are now better able to bundle invoices and deliver custom administrative solutions to a number of large enterprise customers. Combining the teams of billing, collections, and disputes has resulted in a more agile organization. Now, the whole Bill-2-Cash process is managed from one team. We expect to see more positive results from this in 2017.

In 2016, we successfully implemented phase two of creating a single-user identity for all our services (initiated based on customer research). The first phase was implemented in 2015 and allowed customers to log in to all their fixed services with the same user name and password. In 2016, we successfully extended this to mobile services. In 2017, we will work on further integration in our systems to provide one uniform customer experience, across our products and services.

### Sponsorship

We connect people, through quality products and services, and through sponsorship too. Supporting sport, cultural events and charity initiatives in the Netherlands is our way of creating additional value for Dutch society. Besides our financial contributions, our technology and employees make this possible.

### KPN Mooiste Contact Fonds

The KPN Mooiste Contact Fonds connects people in need of social contact, such as the elderly or chronically ill children, with the use of our technology and the help of our employees. In 2016, our employees volunteered 1,855 times for various projects with our charity partners. KlasseContact connects chronically ill children to their classrooms and school friends. It is run in partnership with the educational organization EDventure. In 2016, 505 children used the KPN Classmate digital device. A successful communication campaign in 2016 for our KlasseContact program improved the awareness of KPN's social initiatives.

As in previous years, the KPN Mooiste Contact Fonds arranged events for socially isolated people at the Rijksmuseum in Amsterdam. We also organized the annual KPN Mooiste Contact Dinners with our charity partners. These Christmas dinners were attended by over 700 guests and hosted by over 400 KPN volunteers.

We continued to work with the National Foundation for the Elderly on the Zilverlijn project, which tackles loneliness among elderly people. Each week, KPN volunteers call around 200 elderly people for a friendly chat. We facilitate the connection.

A new initiative was started with the Heart Foundation (Hartstichting) in 2016. KPN Mooiste Contact Fonds provided funding and KPN volunteers to support the Heart Foundation in setting up live group sessions as well as an online platform for youngsters between 12-18 years of age with a congenital heart disease to connect to the world around them.

### KPN main sponsor of Dutch speed skating (KNSB)

We have sponsored the Royal Dutch Skating Association (KNSB) since 2010. Sponsoring the national team and related activities helps strengthen our connection with Dutch society. In 2016, we extended our partnership with the KNSB until July 2018, the year that the Winter Olympics will take place in Pyeongchang, South Korea.

### TEAMKPN Sports Fund

With the support of the TEAMKPN Sports Fund, the Dutch national men's water polo team reached the eighth-finals of the 2016 European Championships. In 2016, we also supported the national women's softball team and the men's curling team. The national women's softball team ended fourth in the World Championship. The national Olympics committee NOC\*NSF has added women's softball and men's water polo to the top sports programs for 2017.

### KPN main sponsor of Rijksmuseum

In 2016, we renewed our partnership with the Rijksmuseum for three years. Our ICT services support the Rijksmuseum in its ambition to be the ultimate, state-of-the-art cultural institute in the Netherlands and abroad. We sponsored an open day for the public to view the museum's two new Rembrandt acquisitions, 'Maarten' and 'Oopjen'. We will live-stream the restoration of these two paintings so the public can follow the progress.

> Quality and reliability of networks



## Continuous investment in high quality and reliable networks

The Internet is an essential part of people's daily lives in the Netherlands and they depend on our infrastructure to keep them connected, whether it's to work, shop or to socialize. We constantly work to improve our technical performance and enhance the quality, capacity and reliability of our fixed and mobile networks.

**KPI**

	Result 2015	Result 2016
% of the Netherlands that agree that KPN has the best ICT Infrastructures	Retail consumers: 55% best fixed network, 50% best mobile network Business: 79% best fixed network and 71% best mobile network	Retail consumers: 54% best fixed network, 47% best mobile network Business: 79% best fixed network and 68% best mobile network
% of households with access to at least 100 Mb connection	68%	75%
Weighted downtime reduction (compared to last year YTD)	-61%	55% <sup>1</sup>

In 2016, we again improved the coverage, quality and speed of our fixed and mobile networks. This resulted in approximately 75% coverage of Dutch households with access to speeds of at least 100 Mbps. This is below our target of 85% because we changed the FttC roll out in order to better respond to customer demands. The average 4G download speed was 51 Mbps by the end of 2016. More than speed, however, we focused on enhancing the quality of our 4G LTE connections, especially voice quality. We erected new masts to increase capacity and less than 0.2% of all calls were dropped in the mobile network. We continued to roll out fiber in our fixed network and 78% of Dutch households are now connected to FttC/FttH.

### Best-in-class networks

As long as the quality of the connection stays the same, it doesn't matter whether our customers access our voice and data services via a high-speed broadband connection or using 4G on a smartphone. In 2016, we integrated our fixed and mobile customer authentication platforms. This will enable our customers to seamlessly switch between WiFi and 4G access to make calls and be online on their phones.

We can develop and roll-out new products and services faster and easier by using network virtualization and a software defined network. We are expanding our high-definition IPTV offering with our mobile Interactive TV service, which matches

the video quality to the access speeds users encounter on different devices and in different locations. In 2017, we are going to roll out visual voicemail where messages are listed including who they are from, so customers can determine the sequence in which they listen to their messages.

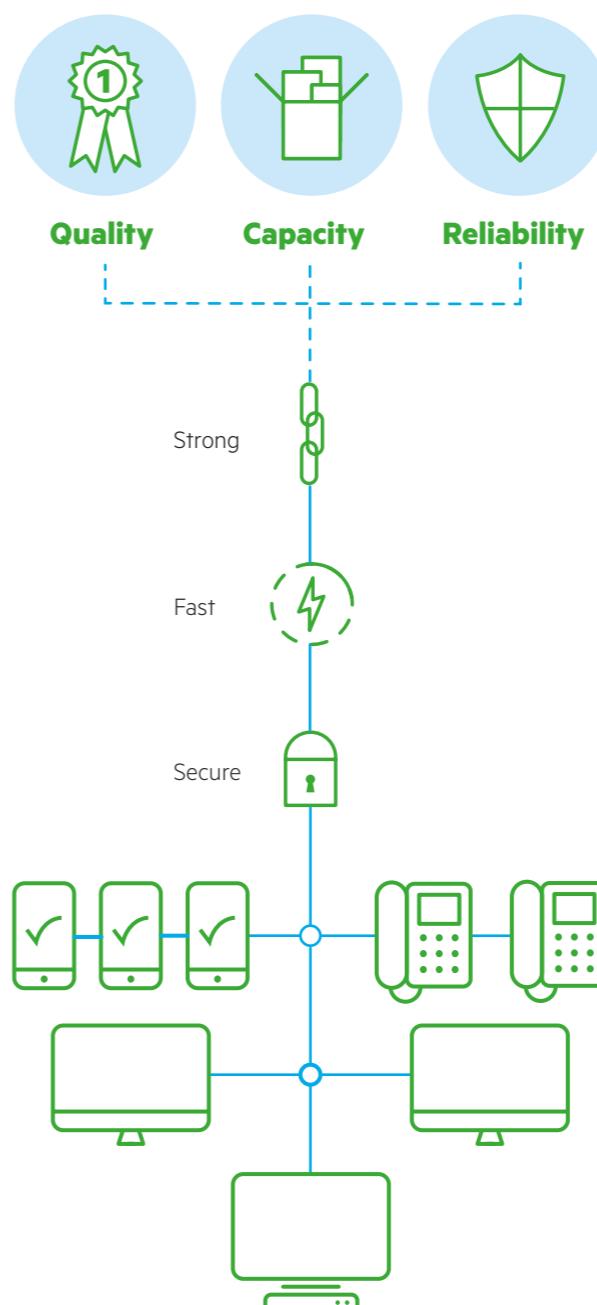
We measure consumer quality perception by the percentage of Dutch consumers who rate our network as the best in the Netherlands. In 2016, an impressive 79% and 68% of business consumers rated KPN as best fixed and as best mobile network respectively, both above our target of 60%. Among retail consumers 54% rated our fixed network and 47% our mobile network as the best. We face heavy competition on the mobile market, however the percentage of mobile consumers rating KPN as the best network is considerably higher than our mobile market share, this indicates that there are mobile consumers who rate KPN higher than their own service provider. Due to the fact that a large number of people have no opinion on this matter, we chose to discontinue this KPI.

### New technologies

In 2016, we activated voice over LTE (VoLTE) on our 4G data network, using the same high-speed infrastructure for both data and phone calls. Voice calls are transmitted in 'packages' in the same way as emails and other data. Calls are connected quicker and the sound quality is better.

<sup>1</sup> In 2016, we had 55% more downtime than in 2015, mainly due to the outage of one specific system, which caused a delay in getting our technical experts on site in time.

### Best-in-class networks to meet customer demands



Also, we installed the LoRa (low power; long range) network outdoors, making the Netherlands the first country in the world with nationwide coverage for Internet of Things (IoT) applications. South Korea announced only a few days later that they also have nationwide LoRa coverage. We equipped hundreds of existing mobile transmission towers with LoRa antennas which are able to connect millions of devices to the Internet. Being the first means there were some initial start-up issues. Most have been ironed out and LoRa is currently being

used in a number of IoT pilots. These include tracking devices in cars, sensors that lead drivers to empty parking spaces in Rotterdam, sensors that automate street lighting and sensors in litter bins at Schiphol airport to improve cleaners' efficiency and productivity. We worked with Rabobank to develop a new payment service using mobile phones and applied the same technology to allow our employees access to KPN buildings. This could be extended to control access to our street cabinets. By replacing physical cards with phone access we could realize substantial cost savings.

### Simplifying and securing our network

We switched off and decommissioned old equipment to simplify the network and improve efficiency. In 2016, this saved 34.9 GWh in energy. However, we also have to migrate our customers to the new systems, which can lead to service disruptions.

In 2016, there were 22 large outages affecting more than 100,000 customers or smaller outages taking relatively long to resolve. In September 2016, there was one large outage that impacted around 73% of our consumer customers with fixed voice and Internet services country-wide. As a result of root-cause analysis, we have improved our procedures to resolve similar problems faster and aim to prevent such an outage from happening again.

### Dilemma

Our customers want continuous and reliable access to voice and data services. Sometimes we have to weigh the cost of delivering this against the social benefits, especially in remote areas with only a limited number of users. A dilemma we face here is where to invest: do we improve the already considerable bandwidth in a populous urban area where we will definitely reach many customers or do we invest in a remote area where bandwidth is still below our standards, but the number of people who will benefit from it is relatively low. Sometimes we choose to test a new technology in a remote area, thus combining an economical impulse with social demands from sectors like transport, healthcare, utilities and agriculture.

We also sometimes face opposition to our plans to erect a new mast or install underground cabling. This makes it hard for us to meet the demand for more and better connectivity. We continue to work with local municipalities and residents to find ways to resolve this.



&gt; Innovation and investments

## Giving people today what they need tomorrow

The fast pace at which technology evolves, requires a different approach to unlock its full potential. It's important to KPN to continuously apply proven technologies in existing and new products and services to fulfill changing customer needs. We do this in-house and by partnering with up-and-coming startups to turn promising ideas into commercial products and services that will improve people's lives.

We are seeing shifts in customer demand that require changes in products and services. The first way in which we are responding to this is by innovating within our existing portfolio. In 2016, we focused on improving our iTV app.

We also introduced Managed Hybrid Cloud in response to a specific demand from the Business segment for simple hybrid cloud solutions. KPN Managed Hybrid Cloud allows customers to leverage their IT infrastructure when digitizing their operations. The hybrid cloud combines the benefits of a virtual private cloud (reliability and security) with those of a public cloud (scalability and flexibility).

We also respond to changing customer needs by partnering with others. The KPN New Business department helps startups bring new ideas to fruition and the KPN Venture fund invests in startups to accelerate innovation. We are already seeing the mutual benefits of this collaboration: we benefit and learn from the speed at which startups can innovate, while they benefit from our brand name and marketing power.

KPN New Business and KPN Ventures were set up in 2015. The New Business team now has a liaison manager who connects our business with startups. We also set up a new department to 'search, qualify and incubate' new ideas. The areas we focus on in particular are the Internet of Things, smart home applications, ehealth, smart cities, near-field communication (NFC) services that enable contactless payments, cloud services, data analytics and cyber security. Read more in our chapter on Impact of products and services on p. 48, where we have also explained how these innovations link to the Sustainable Development Goals (SDGs).

### KPN New Business

We believe in open innovation and we work closely with startups to develop creative ideas quickly. For example, it took us less than three months time to market to introduce Smart Building, an app developed by a partner that shows where there are free desks and meeting rooms in a flexible office environment. This makes it easier to manage the available space and predict peak occupancy times. We will use the app

in our new headquarters in Rotterdam and will roll it out as a business service for customers.

There are three steps to develop new business products. First we have to find the right technologies. One way to identify promising ideas is to host regular startup events. Our last event in September 2016 attracted around 300 startups, underlining the importance KPN places on nurturing innovation. Secondly, we qualify the value the product or service will create for our customers. The third step is to incubate the idea, preferably with our partners and customers, and bring it to market as quickly as possible.

### KPN Ventures

KPN Ventures is an external investment fund set up in 2015. It focuses on stimulating outside-in innovation, building partnerships with startups and scale-ups, and creating value for customers and shareholders. In 2016, the KPN Ventures team became fully operational and executed four direct investments in startups, one indirect startup participation and two indirect (fund-in-fund) investments. It invested in threat intelligence platform provider EclecticIQ, optical time distribution company OPNT, tool tracking company Viloc and industrial cyber security monitoring solution provider SecurityMatters. KPN Ventures also partnered with the Cottonwood European Technology Fund, which invests in early-stage science-based ventures, and KEEN Venture Partners, a new Anglo-Dutch venture capital fund, focusing on growth-stage investment in European technology firms. In 2016, the fund doubled to an amount of EUR 70 million, because we sold our stake in Jasper Wireless (US technology company) to Cisco. The proceeds of the sale have been added to the reserves of our investment fund KPN Ventures. This increases our ability to invest in young technology companies that make the Netherlands smarter, safer and more sustainable.

### Nurturing new ideas

In 2016, we were named one of Europe's top 10 Corporate Startup Stars by UK innovation charity NESTA and the EU Commission's Startup Europe Partnership. This was the first year we featured on this list of startup-friendly corporates. It acknowledges our commitment to partnering with startups and the steps we have taken to make it easier to do business with entrepreneurial young companies, for example by adjusting our procurement terms and conditions and letting them use our facilities.

With RDM Makerspace we also initiated the IoT Academy, where we collaborate with other companies and developers on ways to apply and secure the Internet of Things. The IoT Academy's workshops and hackathons are open to all interested parties, from large corporates to startups.

### Innovations in 2016

In 2016, we introduced a number of innovations. Some innovations are developed in collaboration with partners. The most important innovations of 2016 are:

>**Internet of Things:** KPN was first in the world to roll out a nationwide LoRa network. We activated LoRa in various sectors, such as infrastructure, industry, transportation, smart cities - and soon also consumers. Over 300 developers have been trained in LoRa technology at the IoT Academy.

>**Cyber Security:** In 2016, we partnered with proven technology partners and innovative startups to expand the security portfolio for large companies, Dutch governmental institutions and especially for small businesses. We introduced new products including Security Monitoring & Analytics and Vulnerability Management, invested in threat intelligence as well as securing the Internet of Things, and helped customers transition safely to the cloud.

>**Smart City:** Following the success of initial pilots that used our LoRa network for smart city applications, we are developing a professional solution for municipalities to use in their own cities. KPN's Smart City consultants work with municipalities to analyze available data, identify what they need and determine how smart applications will benefit their city. We implemented our first municipality contract in 2016. Pilots with smart street lighting have shown impressive results: energy and cost savings of up to 80%.

>**SmartOV:** We are implementing the NFC (near-field communication) technology for SmartOV, using mobile phones to access public transport.

>**Rabowallet:** Together with Rabobank, we developed a customer-friendly, secure way to make payments with an Android phone based on our NFC SIM card.

### Dilemma

As KPN, we believe in open innovation and made the choice to work with startups and other parties. It requires trust and sharing. This gives us a lot of benefits, but there is also a downside to open innovation. The choice we have to make is between working together and develop new products and services a lot faster and with the right expertise, or develop by ourselves. Working together also means we have to share the revenues. If we develop by ourselves, the earnings are completely for us, but it also means that the innovation takes much more time, facing the risk of entering the market too late, which also lowers the revenues.

"In 2016, KPN was named as one of Europe's top 10 Corporate Startup Stars by UK innovation charity NESTA and the EU Commission's Startup Europe Partnership"



&gt; Economic value

## Stabilizing financial performance and a solid financial position

KPN's financial performance has stabilized, supported by cost savings and good commercial performance in Consumer while challenges remain in the Business segment. Continued capacity upgrades of the fixed, mobile and core networks supported an excellent customer experience. KPN's financial position is solid and a bond tender and new bond issues further optimized KPN's debt portfolio.

### Financial performance segments

Note: All KPN Group figures presented are based on KPN's continuing operations and do not include the financial results of BASE Company, unless stated otherwise.

#### Consumer

Adjusted revenues in Consumer increased by 1.4% y-on-y in 2016 due to good results in both residential and mobile. Residential revenues grew by 2.5% driven by an increasing number of RGUs, higher ARPU per household and price adjustments. Mobile service revenue growth (1.6%) was driven by high value base growth. Excluding the positive impact of tax benefits of EUR 14 million in 2016 and EUR 26 million in 2015, mobile service revenues increased by 2.6%. Growth in mobile service revenues was partly offset by lower revenues related to hardware sales.

Adjusted EBITDA increased by 4.6% y-on-y, driven by higher revenues and lower operating expenses. Consequently, the adjusted EBITDA margin grew to 60.3% (2015: 58.4%).

#### Business

Adjusted revenues in Business declined by 7.6% y-on-y in 2016 due to lower revenues from traditional telco services as a result of migrations to integrated solutions and rationalization, and price pressure in predominantly Large Enterprise & Corporate mobile services, partly offset by growth in multi-play revenues and new services. Read more on page 35. Adjusted EBITDA decreased by 8.8% y-on-y in 2016 driven by lower revenues, partly offset by costs reductions through Simplification. Indirect costs in Business were 5.1% lower compared to last year. This resulted in an adjusted EBITDA margin of 60.0% (2015: 60.8%).

#### Wholesale

Adjusted revenues in Wholesale grew by 1.0% y-on-y in 2016 mainly driven by the take-up of VULA and WBA in fixed. Adjusted EBITDA increased by 2.4% y-on-y resulting in a 1%-point higher adjusted EBITDA margin compared to last year (2015: 68.2%).

#### Network, Operations & IT

Operating expenses (excluding depreciation, amortization

& impairments) at Network, Operations & IT were EUR 52 million lower y-on-y in 2016 when adjusted for restructuring and incidentals. The reduction was mainly driven by lower IT/TI, housing and personnel costs. The rationalization of IT platforms, finalization of some large innovation programs and further efficiencies due to improved business processes drove the reduction.

#### iBasis

Adjusted revenues at iBasis decreased by 5.8% y-on-y in 2016. On the full year, the currency effect was near nil. The adjusted EBITDA margin in 2016 of 2.7% was somewhat higher y-on-y (2015: 2.5%).

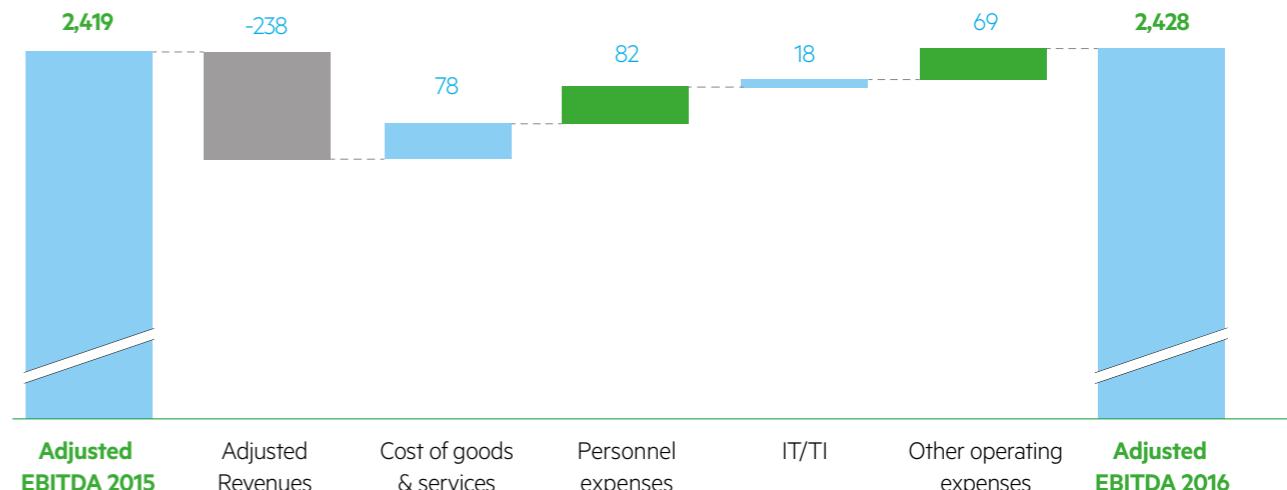
For information on financial and operational performance per segment, read more in Note 3 of the Financial Statements.

### Financial performance (continuing operations)

Revenues in millions of EUR	EBITDA in millions of EUR	EBITDA margin The Netherlands
--------------------------------	------------------------------	----------------------------------



Adjusted revenues in millions of EUR	Adjusted EBITDA in millions of EUR	Adjusted EBITDA margin The Netherlands
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Adjusted EBITDA 2015

Adjusted Revenues

Cost of goods & services

Personnel expenses

IT/TI

Other operating expenses

Adjusted EBITDA 2016

Appendix 1 to this Integrated Annual Report includes KPN's adjusted analysis, which explains the bridge between the reported and adjusted results per segment.

#### Revenues and other income

Adjusted Group revenues and other income were 3.4% (EUR 238 million) lower y-on-y in 2016. Growing revenues in Consumer were driven by the positive impact of base growth and price adjustments. This was offset by declining revenues in Business, mainly driven by the impact of repricing and migrations to integrated IP-based services, rationalization and mobile price pressure.

The positive impact of incidentals in 2016 (EUR 26 million) was due to the release of revenue-related provisions in Wholesale. In 2015, the negative impact of incidentals (EUR 10 million) related to revenue-related provisions and deferred revenues at Business.

#### EBITDA

Adjusted Group EBITDA stabilized in 2016 with a slight increase of 0.4% (EUR 9 million) y-on-y. This was mainly driven by the positive impact from cost savings related to the Simplification program, such as a reduction in own and external personnel. EBITDA was impacted by restructuring costs for EUR 45 million (2015: EUR 100 million). The net positive impact of incidentals was EUR 46 million (2015: EUR 5 million).

The adjusted EBITDA margin for the Netherlands increased to 40.0% (2015: 38.6%), supported by a rigorous cost focus in all areas of the business.

#### Operating profit

Group operating profit (EBIT) increased by EUR 176 million to EUR 884 million due to EUR 105 million higher EBITDA and EUR 71 million lower depreciation and amortization charges.

#### Financial income and expenses

Net finance expenses increased by EUR 312 million in 2016 to EUR 417 million. This was mainly due to the EUR 184 million book gain on the sale of part of its stake in Telefónica Deutschland in Q4 2015, EUR 160 million additional finance expenses related to the bond tender in Q3 2016 and EUR 36 million lower dividend received on KPN's stake in Telefónica Deutschland in 2016 compared to 2015, partly offset by EUR 82 million lower interest costs on its senior bonds as a result of a lower gross debt level.

#### Income taxes

In 2016, KPN recognized a tax expense of EUR 96 million (2015: EUR 81 million). The effective tax rate for KPN's continuing operations for 2016 is 20.6% (2015: 13.4%), mainly due to reversals related to previous years and recognition of liquidation losses in 2015. Also, KPN continues to qualify as an innovative company and therefore benefits from the innovation box tax regime, a facility under Dutch corporate income tax law whereby profits attributable to innovation are taxed at an effective rate of 5%.

The effective tax rate (continuing operations) is expected to be approximately 21% in 2017-2018. See Note 9 of the Consolidated Financial Statements for further information on KPN's tax position.

#### Net profit

Net profit for 2016 was EUR 800 million (including discontinued operations). The profit for 2016 from continuing operations was EUR 370 million. The decrease (EUR 154 million) compared to 2015 was driven by EUR 312 million higher net finance expenses in 2016, which offset the EUR 176 million increase in operating profit. The profit for 2016 from discontinued operations (EUR 430 million) consisted mainly of the result on the sale of BASE Company (EUR 369 million).

## &gt; Economic value

**Capex**

Capex decreased to EUR 1,193 million in 2016 compared with EUR 1,300 million in 2015 due to structurally lower network investments, following a period of elevated investment levels, and lower customer drive Capex. Capital intensity is still relatively high due to investment programs in network capacity and Simplification. In fixed, investments in fiber connections to homes, streets, mobile sites and business parks drove the FttH/FttC penetration to 78% at the end of 2016, with 75% coverage of households with access to speeds of at least 100 Mbps. In mobile, we invested to increase available download speeds via carrier aggregation with 1800 MHz.

**Simplification program successful**

KPN finalized the first wave of the Simplification program in Q4 2016, realizing Opex and Capex run-rate savings of approximately EUR 460 million and 2,072 FTE reductions since the end of 2013. The savings are primarily realized through simplification and rationalization of IT processes and systems, network infrastructure and customer processes. Examples are the migration of fixed KPN customers to a new integrated order management IT platform and the decommissioning of legacy IT systems.

**Free Cash Flow**

Free Cash Flow (FCF) for 2016 was EUR 43 million higher y-on-y at EUR 741 million. Excluding the EUR 110 million dividend received from Telefónica Deutschland, FCF for 2016 was EUR 631 million, EUR 79 million higher y-on-y. The increase was mainly driven by EUR 105 million higher reported EBITDA, EUR 107 million lower Capex, EUR 32 million less taxes paid and EUR 25 million lower interest paid. This was partly offset by EUR 151 million more impact from change in working capital and EUR 24 million more impact from change in provisions. Excluding the one-off cash optimization actions of EUR 52 million and the Telefónica Deutschland (TEFD) dividend, 2016 FCF would have been EUR 683 million, up 24% y-on-y.

**Solid financial position****Net debt to EBITDA**

Net debt amounted to EUR 6.8 billion at the end of 2016, EUR 0.3 billion higher compared to the end of 2015. The increase in net debt was mainly driven by the EUR 1.2 billion capital repayment in June 2016, dividend payments and the bond tender executed in September 2016, partly offset by the net proceeds from the sale of BASE Company in February 2016 and regular FCF generation. Also, the net debt position at the end of 2015 included the proceeds from the sale of part

of KPN's stake in TEFID in Q4 2015 (EUR 805 million).

At the end of 2016, net debt to EBITDA was 2.8x (2015: 2.5x). The average coupon on KPN's senior bonds was 4.1% compared to 5.1% at the end of 2015.

**Capital allocation and shareholder remuneration**

Over the last years, KPN has invested significantly in its network infrastructure, products and customers, resulting in high quality fixed and mobile networks and improved customer satisfaction ratings across all segments. KPN will continue to focus on improving the customer experience by further investing in capacity, reliability and stability of its integrated network. KPN generates FCF (after capital expenditures), which forms the basis for its policy related to regular dividends.

KPN intends to provide a sustainable and growing regular dividend in line with its FCF growth profile. KPN intends to pay a dividend per share of EUR 10ct in respect of 2016. An interim dividend of EUR 3.3ct per share was paid in August 2016. In respect of 2017, a dividend per share of EUR 11ct is intended.

KPN remains committed to an investment-grade credit profile and expects to utilize excess cash for operational and financial flexibility, (small) in-country M&A and/or shareholder remuneration. Any additional shareholder remuneration on top of the regular dividend could for example be in the form of a dividend, share buyback or capital repayment.

On May 20, 2016, KPN received a dividend from its stake in Telefónica Deutschland of EUR 110 million for 2015, which KPN distributed to KPN shareholders as an additional interim cash dividend (EUR 2.5ct per share) on May 27, 2016. On June 30, 2016, KPN distributed approximately EUR 1.2 billion in the form of a capital repayment to its shareholders of EUR 28ct per ordinary share. The distribution was related to the cash proceeds from the sale of BASE Company in February 2016 and the sale of 150 million shares in Telefónica Deutschland in November 2015.

**Outlook 2017**

- > Adjusted EBITDA in line with 2016;
- > Capex ~EUR 1.15 billion;
- > Free Cash Flow (excluding TEFID dividend) growing compared to 2016 FCF, after adjusting for the impact of cash optimization actions, of EUR 683 million;
- > Additional cash flow via expected dividend from 15.5% stake in Telefónica Deutschland.

**Tax**

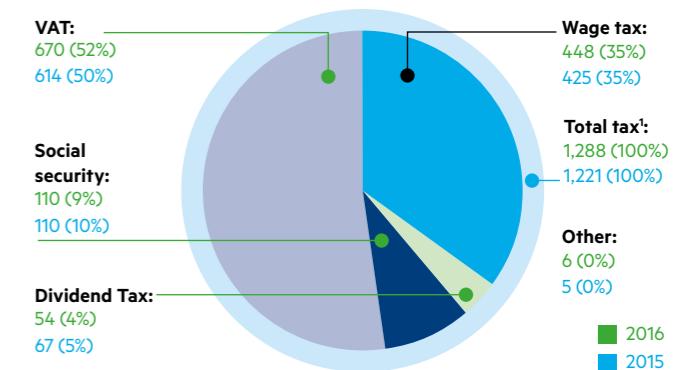
KPN's corporate tax department (CTD) is responsible for KPN's overall tax position and optimal use of subsidy opportunities. KPN adheres to its tax strategy and policy (see [www.kpn.com/taxstrategy](http://www.kpn.com/taxstrategy)). In line with this strategy and policy, our Tax Control Framework (TCF) is continuously monitored and optimized. A cornerstone of the TCF is our long-lasting covenant with the Dutch tax authorities to self-assess and transparently discuss KPN's current and potential future tax issues. This covenant is based on mutual trust and transparency.

In 2016, the following main developments and projects were relevant to KPN from a tax perspective: the divestment of BASE Company, the innovation box related to 2016, the EUR 1.0 billion bond tender, the EUR 1.2 billion capital repayment to shareholders, various M&A transactions and investments through KPN Ventures. KPN made further steps to redesign its VAT control and automation of tax compliance and furthermore advised HR to manage changes in legislation which, if not properly handled, will result in an increased liability for KPN for wage tax and social security in respect of hiring of tentative self-employed persons. KPN also organized a round table dialogue with stakeholders, including NGOs, on the topic "tax in the boardroom".

**Forward looking**

Due to available losses in the Netherlands, KPN expects to pay limited amounts of income tax for the coming years. Based on current projections, KPN expects to fully utilize its realized and unrealized losses well within the expiration limits.

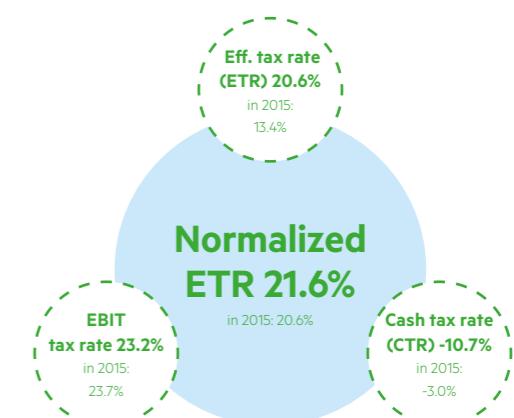
*"Giuseppe van der Helm, Tax Justice NL, on KPN's tax policy: 'At all times, we respect the spirit of the law'. With this powerful sentence KPN is a frontrunner"*

**Cash taxes (in millions of EUR)**

<sup>1</sup> Excluding Income Tax refund of EUR 50 million net (2015: EUR 18 million)

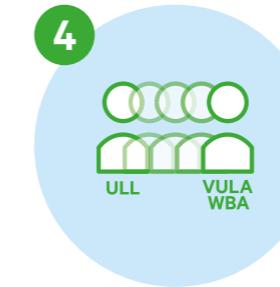
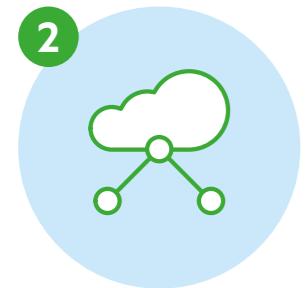
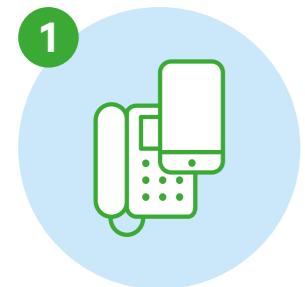
**The following Tax KPIs apply for 2016:**

The reconciliation between KPN's Effective Tax Rate (ETR) and the Cash Tax Rate (CTR) mainly relates to the use of tax losses and a refund (carry back). The EBIT tax rate is lower than the statutory rate mainly due to innovation box tax regime.

**Tax overview for continuing operations per country:**

In millions of EUR or FTE	Total revenues	Operating profit	Associates and joint ventures	Profit before tax excl.	Corporate Income Tax expense	Effective tax rate	Corporate Income Tax cash flow	Other tax cash flow mainly VAT & Payroll	Property Plant and Equipment	Employees end of year
NL	6,298	911	499	-92	18%	51	1,281	5,949	13,265	
US	500	-19	-20	-3	-15%	-	7	20	209	
Other	8	-8	-12	-1	-8%	-1	-	-	-	56
<b>Total 2016</b>	<b>6,806</b>	<b>884</b>	<b>467</b>	<b>-96</b>	<b>20.6%</b>	<b>50</b>	<b>1,288</b>	<b>5,969</b>	<b>13,530</b>	
<b>Total 2015</b>	<b>7,008</b>	<b>708</b>	<b>603</b>	<b>-81</b>	<b>13.4%</b>	<b>18</b>	<b>1,221</b>	<b>6,001</b>	<b>14,078</b>	

› Economic value

**Highlights of our progress on the key strategy priorities as set out on page 16****KPN proven market leader in fixed-mobile bundling**

In the consumer market, KPN's strategy is focused on delivering leading services centered around households and the ongoing convergence of fixed and mobile services. Combined with an excellent customer experience this resulted in continued growth in bundled services and high-value customers.

[Read more on page 34](#)

**Strong market positions**

KPN succeeded in maintaining its strong market positions. The continued growth in postpaid customer base combined with a stabilized postpaid ARPU throughout 2016 resulted in an increase of our mobile market share to 42% (2015: 41%) in an overall declining market. KPN's broadband market share remains strong despite a slight decrease from 41% at the end of 2015 to 40% at the end of 2016.

[Read more on page 34](#)

**Innovative IPTV platform drives TV growth**

KPN's strategic focus on continued innovation and improvement of customer experience resulted in continued strong growth of IPTV customers. Near the end of 2016, KPN surpassed the threshold of 2 million IPTV customers. In 2016, KPN announced a broader set of television channels, added its internet security service to all bundled packages and executed a 4K TV pilot. In addition, KPN introduced HD for its OTT TV service, Play by KPN.

[Read more on page 34](#)

**Expansion in new services**

KPN is continuously looking to expand scale and capabilities for new services related to our ICT infrastructure. The digitalization of companies provides an opportunity to support our IT growth on smart buildings and smart cities. In the cloud computing market, KPN's strategy is to grow both organically and through acquisitions. With the acquisitions of Redbee and Fortytwo, KPN expanded its portfolio and strengthened its position on cloud, managed hosting and IT-Security.

[Read more on page 35](#)

**Migrations to integrated solutions**

KPN is expanding its capabilities in the business market by building on its strong position in access and connectivity with a focus on growing share in the Dutch IT market. The strategic focus on offering multi-play seats provides opportunities for KPN's reorganized sales force to up- and cross-sell additional (IT) services to customers. However, KPN still faces the challenges of repricing and migration of customers away from traditional single play services to IP-based services, rationalization and price pressure in wireless in the LE & Corporate segment.

[Read more on page 35](#)

**KPN set up new company for its colocation data centers**

In response to market demand, KPN moved the data centers in Aalsmeer, Almere, Eindhoven, Groningen, Oude Meer (Schiphol) and Rotterdam into a separate company within the KPN Group. NLDC is the new name of KPN's colocation services. NLDC positions itself as a Dutch data center company that aims to become the best data center supplier in colocation.

[Read more on page 36](#)

**KPN's CSR strategy recognized with CDP award and DJSI World inclusion**

KPN was included in CDP's Climate A list, leading the corporate response to climate change, and was included in Dow Jones Sustainability World Index for the fifth consecutive year.

[Read more on page 3](#)

**Wholesale**

In 2016, KPN completed the phase out of the legacy ATM network for its wholesale customers. The migration of wholesale customers from regulated ULL (Unbundled Local Loop) services to commercially agreed VULA (Virtual Unbundled Access) and WBA (Wholesale Broadband Access) services remains ongoing.

[Read more on page 36](#)

**Increased 100 Mbps speed availability to 75% of households**

The selective FttH rollout is being combined with the rollout of fiber to the street cabinets, reaching a FttH/FttC coverage of 78% at the end of 2016. This resulted in 75% coverage of Dutch households with access to speeds of at least 100 Mbps (2015: 68%). We changed the FttC roll out in order to better respond to customer demands. KPN continuously works on innovation and upgrades of its integrated network. The continued capacity upgrades of its fixed and mobile network are aimed at an excellent network service experience for KPN's customers. Customer satisfaction improved across all segments in 2016.

[Read more on page 37](#)

**Focus of simplification shifting to customer experience**

An important achievement that demonstrated the simplification of KPN's operating model was the realization of three integrated order management IT platforms. The migration of the majority of our mobile consumer and all of our fixed consumer KPN customers were successfully completed in 2016 without noticeable effects for our customers.

[Read more on page 37](#)

## &gt; Consumer

KPN's value focus was reflected in changes to its fixed and mobile propositions implemented in 2016. The new propositions included an enrichment of bundles, such as an internet security package for fixed customers, EU roaming within the bundle for new mobile subscribers and live Dutch football at improved conditions. Also, a broader set of television channels was introduced, internet security services were added to all bundled packages and KPN introduced full HD for its OTT TV service, Play. by KPN.

KPN continued to focus on the high-value segment of the market via its leading KPN brand. New propositions were also introduced for the Telfort brand, aligning FttH and copper pricing and targeting fixed-mobile convergence.

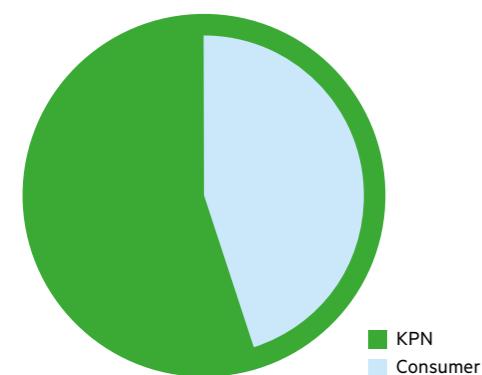
**Bundled**

KPN's focus on fixed-mobile bundling resulted in an increased penetration of households (broadband customers) in fixed-mobile bundles to 37% at the end of 2016 (2015: 29%) and an increase in postpaid customers in fixed-mobile bundles to 43% (2015: 33%). This was further supported by the introduction of fixed-mobile benefits for XS4ALL customers at the end of 2016.

**Strong operational performance**

KPN's net adds in broadband of 45 thousand and IPTV of 126 thousand in 2016 were driven by growth in the high-value KPN brand. Bundled residential services resulted in a growing number of RGUs per household (2.16 vs. 2.07 in 2015). ARPU per household increased to EUR 41 (2015: EUR 39), mainly driven by the growing RGUs per household and the price increase implemented on July 1, 2016.

Furthermore, KPN continued to grow its mobile customer base with 92 thousand postpaid net adds, which was entirely driven by the high-value KPN brand. The positive effect on ARPU from the shift to our high-value brand was offset by the lower tax benefits in 2016 compared to 2015. The committed part of ARPU increased by 4% to 84%, among other factors due to the introduction of new propositions that include EU roaming.

**Segment contribution to KPN Group revenues****KPN proven market leader in fixed-mobile bundling****fixed-mobile households****1,077 k**

2015: 813k

**postpaid customers in fixed-mobile bundles****1,583 k**

2015: 1,172k

**Strong market positions****Mobile market share****42%**

2015: 41%

**Broadband market share****40%**

2015: 41%

**Innovative IPTV platform drives TV growth****Number of ITV customers****2,003 k**

2015: 1,877k

**Market share TV****30%**

2015: 29%

## &gt; Business

**Migrations to integrated solutions**

In all segments of the business market, KPN is migrating customers to integrated solutions and new technologies. This presents up- and cross-sell opportunities, but also results in lower revenues from traditional services. Revenues are also impacted by rationalization and price pressure in predominantly Large Enterprises (LE) & Corporate mobile services.

**Strengthening portfolio and infrastructure**

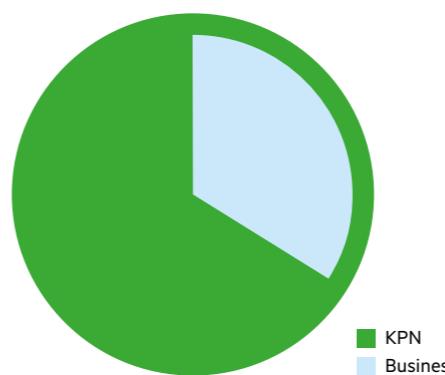
KPN is building on its strong position in access and connectivity to grow in the Dutch IT market and has improved its market position via selective acquisitions (such as Redbee and Fortytwo in 2016). In 2016, KPN invested in SecurityMatters, a provider of advanced cyber security solutions, as part of its strategy to grow in digital security services. KPN recently strengthened its security services portfolio by acquiring DearBytes. Read more in Note 28 of the Financial Statements.

KPN launched Managed Hybrid Cloud, a solution that flexibly combines KPN's award winning datacenters with integrated solutions of leading international third party IT companies. With KPN ÉÉN, KPN provides business customers with a single point of contact and presents them with increased overview of all their services through a single invoice service. Customers can compose their own service package more easily, which simplifies the Customer Journey and rationalizes the business market portfolio.

**Order intake improving**

In 2016, KPN successfully signed up several new large customers and extending or expanding existing contracts. A number of these multi-year contracts are centered around KPN's innovative and IT driven solutions. Over 15,000 employees of the City of Amsterdam work with IT solutions hosted and supported by KPN. Most of these applications will be managed via KPN's Managed Hybrid Cloud solution. By doing so, KPN continues to support the City of Amsterdam in its IT modernization.

For the Dutch Ministry of Infrastructure and Environmental affairs, KPN, together with its partners, created Talking Traffic, enabling intelligent solutions providing road users with real-time traffic information.

**Segment contribution to KPN Group revenues**

UWV, the Employee Insurance Agency of the Dutch state, entered into a renewed contract for KPN Workplace Services. Aiming for a highly standardized workplace environment (SaaS), resulting in maximum stability and flexibility for the years to come.

**Number of SME multi play seats****316 k<sup>1</sup>**

2015: 58k

<sup>1</sup> Including 201 thousand multi play seats from RoutIT**Business revenue growth drivers**

	FY'16 adjusted y-on-y growth	% of total adjusted revenues
<b>Business total</b>	-7.6%	
<b>Mainly SME</b>		
Single play wireless	-13%	23% <span style="color: green;">1</span>
Traditional fixed	-19%	17% <span style="color: green;">2</span>
Multi play	27%	5.2% <span style="color: darkblue;">3</span>
Network & IT services	-10%	22% <span style="color: darkblue;">4</span>
Customized solutions	-1.2%	24% <span style="color: darkblue;">5</span>
New services	18%	5.0% <span style="color: darkblue;">6</span>

1. Single play wireless decreased due to the impact of repricing, lower roaming fees and the migration to multi play and customized solutions.
2. Traditional fixed-only services continued to be impacted by rationalization and the ongoing migration towards VoIP and multi play.
3. Multi play revenues growth was driven by KPN's integrated service KPN ÉÉN in the SME segment.
4. Revenues from Network & IT services continued to decline, mainly due to price pressure on Network services and lower hardware sales this year.
5. Revenues from Customized solutions declined following the shift to standardized solutions for which less customized work is needed
6. Higher cloud revenues contributed to growth of revenues from New services.

## › Wholesale

Wholesale provides connectivity solutions to KPN's fixed and mobile wholesale partners via KPN's fixed and mobile networks. As per January 1, 2016, KPN concentrated its mobile and fixed wholesale activities into one operating segment as part of the new functional structure of the company.

**Wholesale fixed**

In 2016, KPN completed the phase out of the legacy ATM network for its wholesale customers. The migration of wholesale customers from regulated ULL (Unbundled Local Loop) services to commercially agreed VULA (Virtual Unbundled Local Access) and WBA (Wholesale Broadband Access) services remains ongoing enabling providers to upstage broadband speed to their end customers.

**Wholesale mobile**

Wholesale mobile data increased 27% and offsets the decrease in wholesale call volumes (minutes) of 12%. In the second half of 2016 average data usage by Wholesale customers increased even 56%.

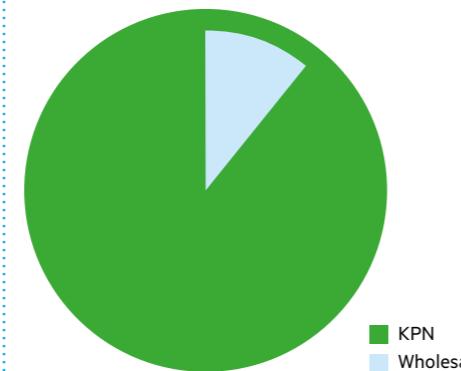
**NL-ix**

NL-ix, which is a subsidiary of Wholesale, provides peering, transport and transit activities. Peering is a service that enables low-latency international exchange of mutual internet traffic via peering sessions at minimal costs. Compared to public internet, peering improves performance and minimizes page load times through stable, uncongested and short paths, eliminating third party network routing hops and dependencies, reliable delivery (zero packet loss) and low latency (roundtrip delay). NL-ix has considerably grown its peering activities in 2016.

NL-ix (together with AMS-ix) has been named by Deloitte as a mainport for Internet traffic more than the Port of Rotterdam and Schiphol are for containers and passengers respectively. The NL-ix peering VLAN is shared and distributed over the NL-ix infrastructure. Members can peer with each other from each of the connected data centers (more than 100, located across 12 countries).

**KPN to set up new company for its colocation data centers**

As per January 1, 2017, KPN brought six of its data centers, focused on offering colocation services, into a new company, named NLDC, with its own identity within the KPN group. By doing so, KPN expects to be able to better capitalize on the growth opportunities in the market for colocation, where 'carrier and cloud neutral' are key decision criteria for customers. The datacenter business will become part of KPN's operating segment Wholesale.

**Wholesale mobile customers****Wholesale lines****Segment contribution to KPN Group revenues**

■ KPN  
■ Wholesale

## › Network, Operations &amp; IT

**Core network**

KPN continuously innovates and upgrades capacity of its best-in-class integrated network and ICT infrastructure. To ensure best customer experience we continuously work to strengthen our core network and mobile network capacity. The fixed core network (FCN) has been upgraded and connected to 161 Metro Core locations, thereby bringing services closer to the customer, which improves stability of the connection and provides an excellent customer experience. In total, approximately 2.5 million connections were successfully migrated.

Within the extensive program Life Cycle Management, KPN shuts down outdated networks to ensure greater simplicity and significant cost savings. In this context KPN, as one of the first incumbents in Europe, shut down the ATM network in April 2016.

**Access network**

The high coverage of FttH/FttC (78%) within KPN's network allows KPN to deliver next generation access to the majority of Dutch households. 75% of Dutch households have access to speeds of at least 100 Mbps (2015: 68%). The high number of fiber connections running to Dutch homes, streets, mobile sites and business parks puts KPN in an excellent position to benefit from the latest network technologies. KPN continued to rollout carrier aggregation and made VoLTE services available to an increased number of customers.

**Rationalization order management IT platforms**

In 2016 KPN rationalized the order management IT platforms for consumer customers. The KPN branded mobile consumers and all of our fixed consumer KPN customers were successfully migrated to new IT platforms. The migration of mobile wholesale customers has started and next year both mobile business market customers and mobile Telfort customers will be added.

For Telfort consumer customers, the CRM processes, delivery and portfolio for copper and fiber customers were combined on the same IT platform in order to reduce complexity for both customers and employees.

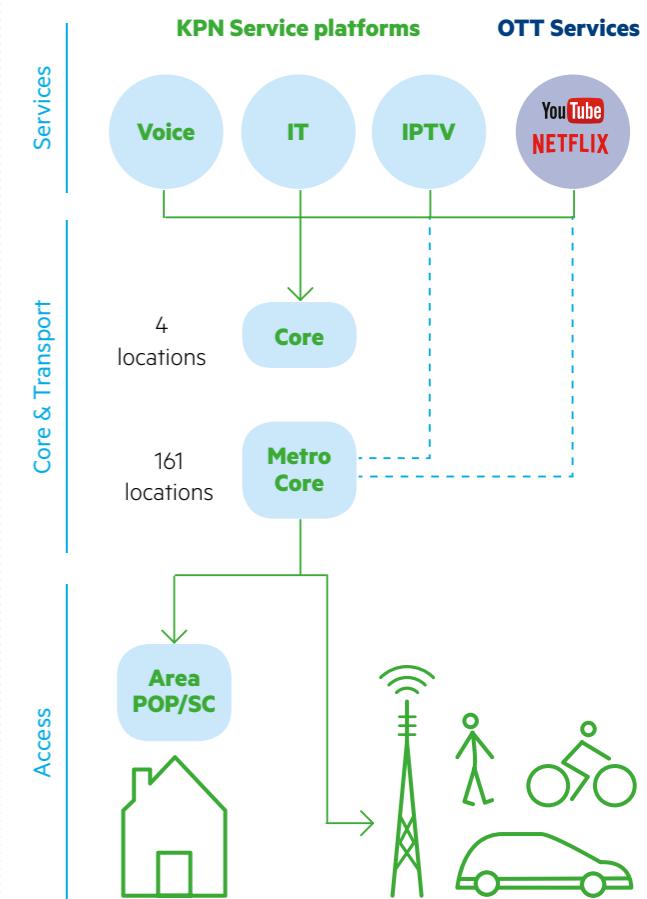
Before December 1, 2016, all customers were migrated and as of December 2016, the old systems will be decommissioned, all to be finished by the end of January 2017.

**IT application rationalization program**

Over 200 systems have been phased out since the start of this IT rationalization program, however approximately 100 new systems were introduced, making the progress somewhat slower than planned.

**KPN obtained Digittenne license until 2030**

KPN obtained the new license for digital ether television (Digittenne) until February 1, 2030 from the Radio communications Agency (Agentschap Telecom) for free. The continuity for hundreds of thousands of customers is guaranteed. The former license expired January 31, 2017.

**How our services reach our customers**

## › iBasis

iBasis, a wholly-owned KPN company, supports carriers and other operators by offering seamless connectivity for voice, data and Internet of Things services.

**Changing market dynamics**

In 2016, iBasis continued to build its customer base in international LTE data traffic, securing a number of new key customers. Based on carried minutes, iBasis is now one of the top three providers of LTE Roaming, with traffic to an increasing number of LTE networks around the world, from approximately 40 in 2016 to over 400 in 2017.

iBasis gained voice market share in 2016, however the ongoing decline in the wholesale voice carrier market resulted in pressure on revenues while traffic volumes were flat.

Changing market dynamics affecting iBasis in the first half of 2016 resulted in a goodwill impairment of EUR 45 million. Read more in Note 11 of the Financial Statements.

In April 2016, iBasis sold its SMS business, including customer and vendor relationships, demonstrating the increased focus on emerging 4G services such as LTE roaming and Voice over LTE (VoLTE).

After being the first to facilitate a VoLTE roaming call in 2015, iBasis further enhanced its ability to support VoLTE in 2016 by working with other KPN companies. This collaboration expanded the roaming 4G connections by 125 to 325 total connections. In 2017, iBasis will begin to offer VoLTE Roaming in collaboration with other KPN entities.

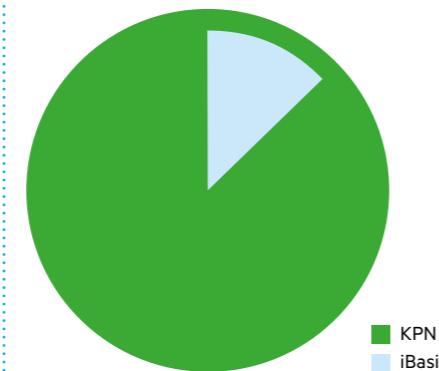
In 2016, iBasis won the Global Carrier Awards for best voice service innovation – mature markets.

**Providing analytics-based services**

iBasis offers operators a range of advanced analytical tools called InVision, which enable customers to actively manage service quality, identify revenue opportunities and better serve their subscribers.

**Enabling 'Next Gen' digital services**

iBasis provides customized solutions to enable Communication Services Providers to deliver Internet of Things services. As an example, iBasis was selected to implement an LTE Roaming solution that uses iBasis' global LTE footprint, hosted Diameter Signaling service and custom development to enable 'Next Gen' 4G/LTE connectivity for connected cars throughout Europe.

**Average revenues per minute**  
in cents of EUR**Number of minutes**  
in billions**Segment contribution to KPN Group revenues**

KPN  
iBasis

## › Regulation affects our business

KPN is subject to sector specific regulation and enforcement thereof by regulatory authorities, such as the 'Autoriteit Consument en Markt' (ACM) in the Netherlands. As described in the chapter 'Risk Management & Compliance', KPN's Risk Management and Control System is designed to minimize the risk of non-compliance with regulations.

**European developments; the Digital Single Market strategy**

Regulation of the electronic communications markets is largely based on European legislation. The European Union's roaming and open Internet access regulations are directly applicable in all member states. The application of the regulation of operators with significant market power is done nationally, but under coordination of the European Commission. This still affects KPN in some fixed markets and on fixed and mobile call termination services. Licensing regimes for frequencies are based on national law. Increasingly, due to the development of the markets and our services, also other regulation (such as privacy law and content-related law) has an impact, but this regulation has a broader scope than electronic communications services and is not described here.

In 2016, the major part of proposals for regulatory reforms were presented by the European Commission, including a full review of the regulation of the electronic communications market. The proposals may be amended during the process towards approval. New rules are not expected to become effective within the next three years.

**International roaming on mobile networks**

As of April 30, 2016, the new tariff regulation became effective. National retail tariffs must be applied for roaming within the EU/EEA. Surcharges not exceeding regulated wholesale rates are allowed until June 15, 2017 and prohibited after this date. Only for traffic exceeding defined 'fair use' criteria, or after approval of the National Regulatory Authority when national tariffs are not sustainable with 'roam-like-at-home', surcharges will be allowed. The applicable fair use criteria and methods to assess whether tariffs are sustainable were published on December 15, 2016, and the underlying wholesale tariffs were set in January 2017. Additional guidance for smooth implementation by operators from BEREC, e.g. on preventing fraud and abuse, is expected early 2017.

**Net neutrality**

Also as of April 30, 2016, the regulation on open Internet access became effective, aimed at replacing national net neutrality rules with fully harmonized European rules. The Body of European Regulators for Electronic Communications (BEREC) provided further guidance for applying these rules by August 30, 2016. The EU rules are detailed and provide for obligations in relation to the openness of the Internet ('no blocking, no throttling, no undue prioritization', etc.) as well as for obligations in relation to transparency on the actual quality of Internet services that customers experience (e.g. broadband speeds). In the Netherlands the amended national legislation that entered into force still includes a general ban on tariff differentiation (including

'zero rating') that is not included in the EU regulation or in the BEREC guidelines. It remains to be seen whether the national legislation in this respect will be considered valid by courts.

**Market analysis decisions**

The decision related to the markets for unbundled access to copper and FtTH networks entered into force on January 1, 2016. On these markets (virtual) access obligations, tariff regulation (partly by safety caps based on the 2011 tariff levels) and margin squeeze tests were imposed. For other markets, ACM published draft decisions in 2016, including proposals to maintain regulation for KPN on the wholesale market for two and more simultaneous calls.

**Spectrum licenses**

The 2100 MHz licenses were extended in 2016 for a period of four years (fee EUR 23.6 million). The license for Digital Terrestrial Television (DVB-T) til February 1, 2030 was awarded to KPN at no cost.

**Act on Financial Supervision**

The Dutch Supreme Court ruled in 2014 that 'all-in' telephone subscriptions that include a monthly payment for a mobile handset are a form of consumer credit, thus ruled by the Act on Financial Supervision (Wft). Providers have tried to come to a code of conduct, but when that failed, a 2-step implementation of the rules has been agreed upon with the regulator (AFM). As of January 1, 2017 all KPN's marketing communication on handset-credit complies with the Act. The remaining set of measures will be effective from May 1, 2017. This relates i.e. to 1) a separate credit-contract, 2) a check on income and financial obligations for credits above EUR 250 and 3) registration with the Bureau on Credit Registration (BKR) for credits above EUR 250. KPN does not charge any interest for these propositions, when including handset-credit, and has already since September 2016 made a clear split between the monthly fees for the subscription and for the handset. All sales people (in shops, call centers and indirect channels) will be trained and tested on their knowledge of these specific rules, thus ensuring that credits are contracted responsibly and the customer's interest is put first.



&gt; Privacy &amp; Security

## Keeping data private, safe and secure

As more and more devices are connected to the Internet and ever more data is exchanged, there is a need to create a more secure digital environment where people can safely work, socialize and shop. We want everyone to enjoy the benefits of connectivity without having to worry about being hacked or have their privacy violated.

**KPI**

% of Dutch people that believe their data is safe with KPN

**Result 2015****73%****Result 2016****70%**

% of customers helped (within 8 hours) who were unintentionally infected by malware

**Result 2015****72%****Result 2016****96%**

KPN takes various precautions to keep its customers and networks safe and to protect people's privacy. In addition to securing our own networks, systems and products, we provide people and businesses with the tools they need to protect theirs. We safeguard personal information and provide tools that help young children use the Internet safely. We work with our suppliers to ensure they design products with security in mind.

### Our security approach

Keeping our systems safe demands continuous vigilance and rapid adaptability, especially since we must counter attacks that are increasingly sophisticated. Our security model is based on the security lifecycle approach: prevent, detect, respond and verify. KPN has a strategy and a policy team for prevention, a REDteam of ethical hackers to proactively detect, a Computer Emergency Response Team (CERT) to respond and a team of Senior Security Officers to verify and implement security measures. The SOC (security operations center) and CERT monitor our systems and networks 24/7 and provide rapid response to resolve any vulnerabilities detected.

In 2016, we made our security policy available as open source in an app we developed: the KPN CISO app. We believe transparency and collaboration will ultimately make systems even more secure, inspired by Kerckhoff's principle that a cryptosystem should be secure even if everything about the system, except the key, is public knowledge.

### KPN security strategy

In 2012, KPN wrote a security strategy and plan together with TNO. This plan ran from 2012-2015, and at the end of 2015 we assessed and updated the strategy. The updated strategy and plan will run from 2016-2019. It covers our vision, mission, key objectives and action plan. One of the key areas for 2016 is to secure KPN's email system to protect customers from fraudulent email. Another key area is to develop threat intelligence capabilities. We have initiated activities on each of the ten strategic areas of the plan.

### Calculating the value of security

In 2016, our security team developed the KPN CISO app. This app has four elements: KPN's security policy, a tool to calculate the Potential Harm Of Security Incidents (PHOSI), the Common Vulnerability Scoring System tool (CVSS), and the European Cyber Security Perspectives report. The app is free and was one of the top 15 downloads of free business apps in June 2016.

By publishing KPN's security approach and policies we believe we contribute to a higher level of security, continuity and privacy, both within KPN and for society as a whole. Being transparent about our approach, and asking for feedback, gives us further opportunity to improve. We also want to help and inspire security professionals to enable their own businesses to thrive securely.

### Enhancing digital security

In 2016, 16,088 viruses were detected based on information from reliable notifiers. In 96% of cases the KPN Abuse team could act on the information within eight hours, significantly higher than 2015 (72%) and just below our 98% target. We intend to improve on this in 2017 by automating more processes to detect malware earlier and thereby lower the number of reported infections. We joined forces with other Internet and hosting providers to rapidly share information about possible infections via the Abuse Information Exchange. This joint approach speeds up alerts and has contributed to a decline in the overall infection rate of our customers.

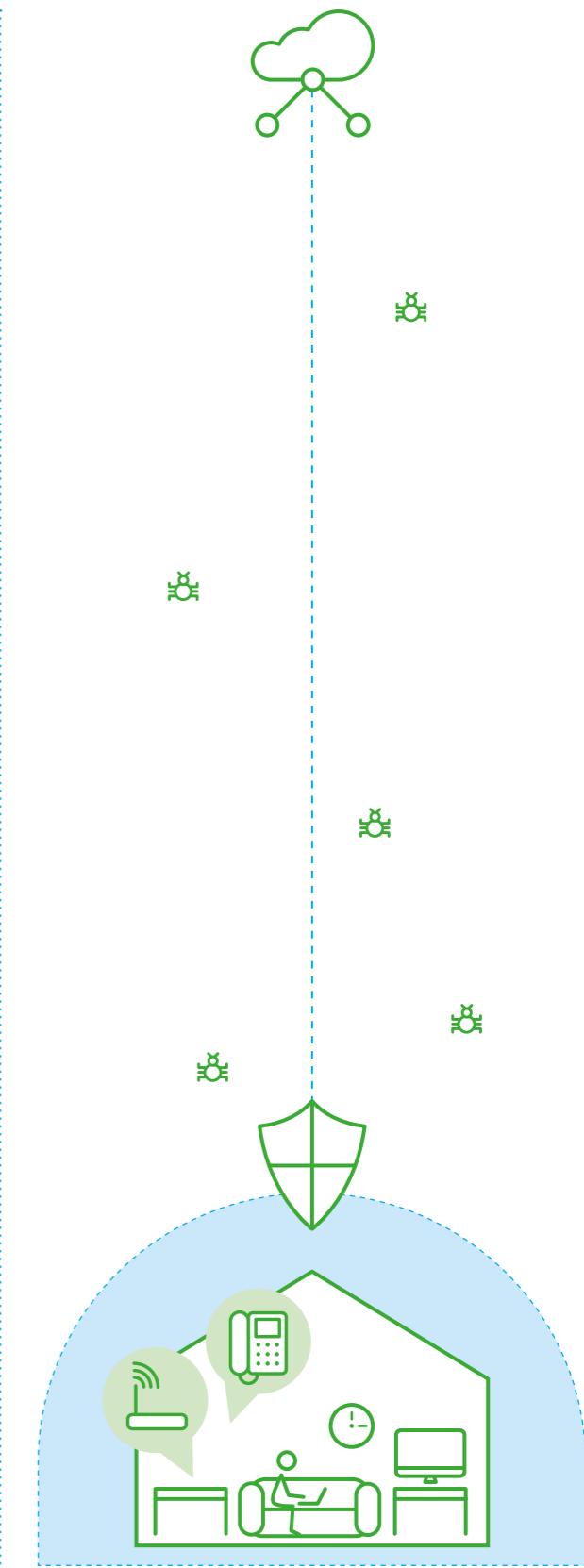
If we detect a customer's connection is infected with malware, we isolate the connection and put it into 'quarantine'. This allows the customer to continue accessing the Internet, but stops the infection spreading through our network while we work together to address the problem.

### Quantum computing

To secure digital information in quantum computers in the future we tested a quantum encryption link in our network for the first time in 2016. We applied an end-to-end quantum key distribution (QKD) test between two data centers in Rotterdam and The Hague. This is one part of our quantum research activities. We are also introducing longer key lengths for encryption algorithms currently in use, and are engaged in developments around post-quantum cryptography. KPN takes part in the EU high-level Steering Committee in Quantum Technologies, which is part of the EU Flagship Program.

### Privacy

The proliferation of devices collecting data makes it imperative that people's personal information is kept safe. Our customers expect this of us and it is a responsibility we take very seriously. In 2016, 70% of customers said they believe their information is safe with KPN. This is slightly lower than last year and just below our target. The reason is that fewer people saw KPN as their main telecom provider and customers of other operators gave KPN a lower ranking. Continuous communication remains very important for us; we focus on explaining how and reassuring that the customer is in control of their own data.



Creating a secure digital environment for our customers

## › Privacy & Security

In 2016, we expanded our privacy department to deal with the rising number of requests for information from inside and outside our organization, as well as queries from the business and customers about how we can and do use data. Many of these requests in 2016 related to how we interpret the rules and regulations. Customers can find information online regarding their rights under data protection laws, such as the right to access, rectify and object to processing of their personal information. Privacy requests are likely to increase even more with the rise of connected devices to the Internet of Things and big data initiatives.

The Dutch government uses national electronic identity systems such as DigiD in digital communication with civilians and businesses. With the further digitization of these processes, new electronic identity systems developed by the private sector are being considered as well. KPN is collaborating in the development of such a system. However, there are ongoing public discussions about the legal grounds for these systems.

### Telecommunication Act

We respect our customers' right to privacy. At the same time, we are legally obliged to disclose certain information to national investigation agencies. This is part of our license to operate. We must facilitate this in our infrastructure and cooperate with law enforcement agencies as specified in the Telecommunication Act. We treat this obligation with the utmost care and responsibility. A liaison office is available 24/7 to facilitate interaction with law enforcement for all KPN brands. We assess incoming warrants and check on various aspects to filter out any uncertainty. If we note a deviation, we reject the warrant, inform the agency involved and follow relevant procedures. In 2016, a mismatch was found in 1.3% of the warrants received.

In 2016, 99.3% of the interception orders concerned telephone numbers, 0.3% regarded email addresses and in 0.4% of the cases we were ordered to intercept IP addresses.

### Privacy regulation

Privacy regulations are being tightened and we set up an internal team in 2016 to prepare for the new Europe-wide data protection laws (GDPR), which will be in place in 2018. These laws are much stricter about the way companies process data and use and store customer information. Under GDPR, for example, the onus will be on KPN to prove our contractors can keep data safe. All new products must safeguard users' privacy by design. We are developing a tool for identifying and assessing privacy risks throughout the development life cycle of a product, program or system.

Following an investigation by the Dutch Data Protection Authority in 2016, we amended the way we collect and process data about the viewing habits of interactive digital TV customers. We revised our privacy statement to make it clearer to customers how KPN uses different types of data. We also modified our systems to only process viewing data for technical reasons and reduced the time we store this data. The Dutch Data Protection Authority has confirmed that all infringements of the Dutch Personal Data Protection Act have been resolved.

### Internet safety

KPN focuses on two areas: helping children use the Internet safely and protecting customers from cyber threats. A study by Delft University of Technology, in which KPN is involved, shows the Netherlands is one of the top-ranking countries when it comes to botnet mitigation. As an Internet service provider, our proactive approach plays a very important role in this. The high ranking of the Netherlands is supported by initiatives to collectively exchange malware information via the Abuse Information Exchange and through funding and expertise.

Another element of our privacy and security approach is to make our digital services safe for children. Tools and initiatives are in place to help keep children safe from inappropriate content, both on the Internet and on TV.

In 2016, we released an iPad app for children under the age of six that provides safe access to positive age-appropriate content. The app builds on KPN's MyBee safe desktop browser. It was developed in response to research by the European ICT Coalition that shows children are accessing the Internet from mobile devices at an increasingly younger age. The app has been downloaded over 10,000 times since its launch in April.

October is the European Cyber Security Month. The Dutch initiative in 2016 was Alert Online. As one of the main partners of Alert Online, KPN CISO organized a hacking training together with Hack in The Class (HiTC) and helped with the development of the instruction material. KPN CISO also invited SANS Institute to provide a training in programming.

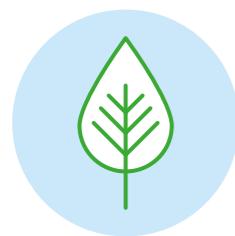
To raise awareness of the need for businesses to invest in internet security we initiated the Veilig Zaken doen campaign. We are developing affordable security products for small businesses to protect their networks. Free virus protection is included as standard in all our fixed and mobile phone subscriptions.

### Dilemma

KPN has access to information about its customers: the TV shows they watch, websites they visit, when and how often they are online. This information has commercial value for our own business and for third parties. But we have made it very clear that we will always protect our customers' privacy and will not use or share their data for business purposes without their explicit permission. However, sometimes we have to weigh privacy considerations against other factors. For example, when a mobile device exploded during use, we decided the safety of other users was paramount and disclosed the contact details of customers with the same device to our marketing department so they could warn them of the danger.

Sometimes copyright holders ask us to provide information identifying customers suspected of illegally downloading their material. The copyright holders are exercising their civil right to identify suspected perpetrators. For such cases, we have published a self-regulatory policy online, which outlines the process and responsibilities of all the parties involved. We assess each case individually to determine if a manifestly unlawful situation has occurred. We also involve the customer in the process. In 2016, there were 27 copyright disputes. In most instances the customer and copyright holder came to an agreement. In two cases KPN provided the requested information.

**"We believe transparency and collaboration will ultimately make systems even more secure, inspired by Kerckhoff's principle that a cryptosystem should be secure even if everything about the system, except the key, is public knowledge."**



&gt; Environmental performance

## Climate leader

In 2016, our environmental program led to a saving of EUR 3 million, mainly due to energy reduction activities in our networks and fuel reduction of our leased cars. According to the CDP, we are a world leader when it comes to corporate action on climate change. Since the Paris Agreement of December 2015, this has become increasingly important to KPN.

**KPI**

% Reduction of energy consumption KPN Group compared with 2010

## Result 2015      Result 2016

18%      20%

Absolute car fuel savings compared with 2010

37%      39%

Data centers: more energy efficient compared to 2010 (PUE)

13%      15%

Collecting customer equipment (KPN specified)

62%      74%

### Environmental strategy

Our environmental efforts are focused on reducing our environmental footprint even though the volume of our ICT services is growing exponentially. As the result of our considerable efforts to use less energy and reduce carbon emissions, KPN has been climate neutral since 2015. Moreover, it's our ambition to migrate towards circular operations and services. With our products and services we help our customers reduce their own environmental footprint. We believe ICT is key to realize the international climate goals and unlock a better future for our planet and its people.

equipment will be part of our circular program in 2017. In 2017, we will work towards a manifest with some of our major suppliers. This manifest will describe how suppliers can help to make KPN's products and processes more circular.

### Making KPN more circular

To reduce the material impact of our services, we want all the new equipment in our networks and data centers, and all devices and products built to KPN specifications, to be close to 100% circular by 2025. This means all the materials will be reused or recycled, either by us or by partners in the value chain. This is in line with the Dutch government's ambition to reduce raw material use by 50% by 2030.

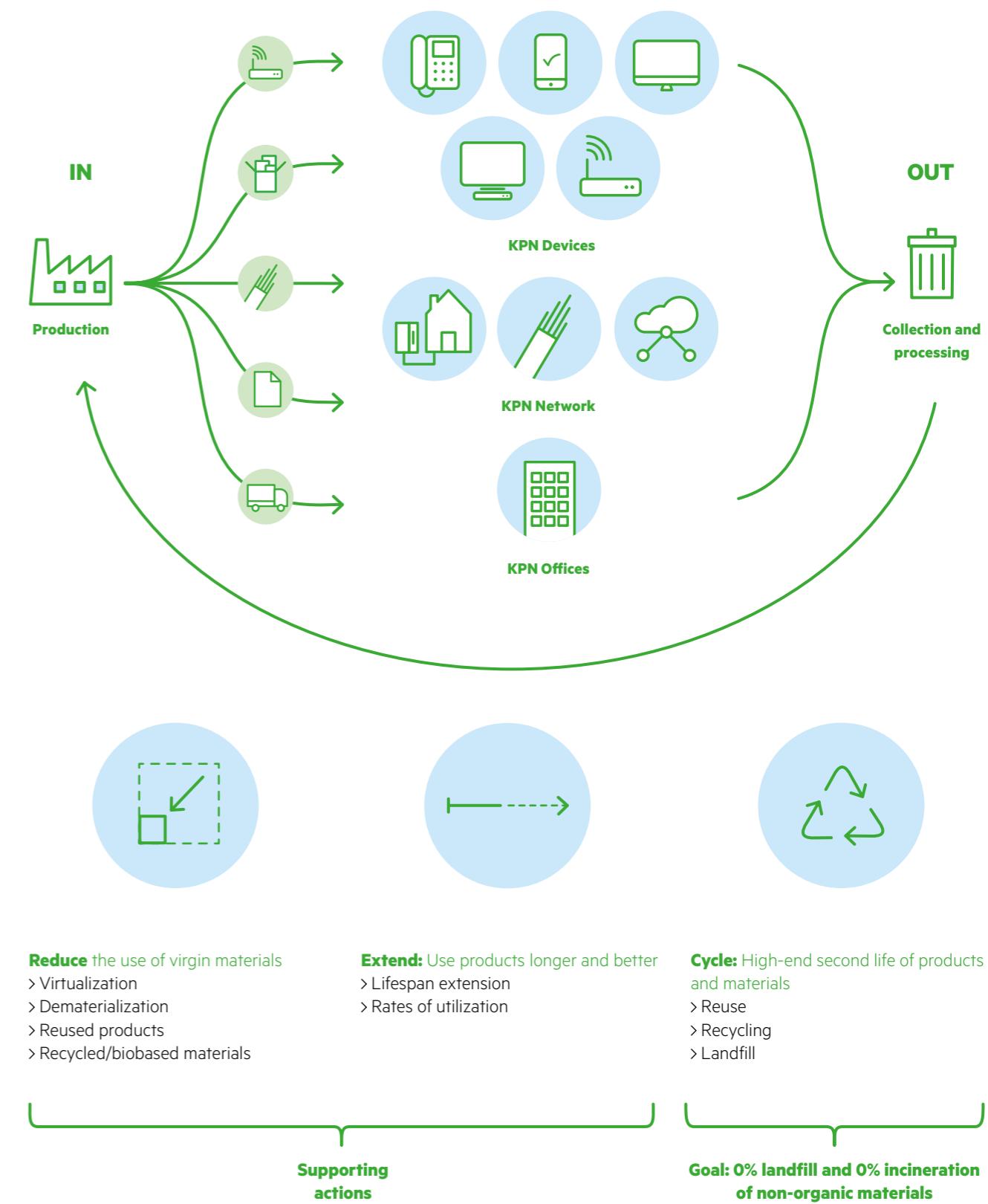
To become more circular we will use less equipment, increase the longevity of our products and wherever possible switch to more sustainable materials. We collect customer equipment to be able to reuse and recycle it. Although we improved our collection from 62% to 74%, we did not completely reach our target to collect 80%. Improving collection rates of customer

### Climate neutral since 2015

KPN was once again climate neutral in 2016 for its own operations. We use 100% green electricity generated by local wind farms and biomass plants. This accounts for 85% of our energy consumption. CO<sub>2</sub> emissions from our vehicle fleet (11%) and gas consumption (4%) are compensated with Gold Standard projects and forest compensation projects. Less than 1% of our usage is caused by fuel consumption of emergency power equipment. Since 2014, we have measured and reported the CO<sub>2</sub>e (equivalent) emissions in our supply chain. In 2016, we reduced these emissions by 12% compared to 2014. 50% of this reduction is due to selection biomass with low emissions in the chain and corresponding Scope 3 conversion factors. If we would have used these specific factors in 2014 and 2015 our CAT3 emissions would have been 40,5kTon in 2014

"KPN is committed to the principles of a circular economy, which emphasize recycling and longer product lifespans"

### Our approach to become a circular company



## > Environmental performance

and 34.4 kTon in 2015 and our total scope 3 reduction in 2016 compared to base year would have been 6%. Following discussions with several suppliers to reduce CO<sub>2</sub>e emissions in our supply chain, our main warehouse will be powered by its own wind turbine from 2017.

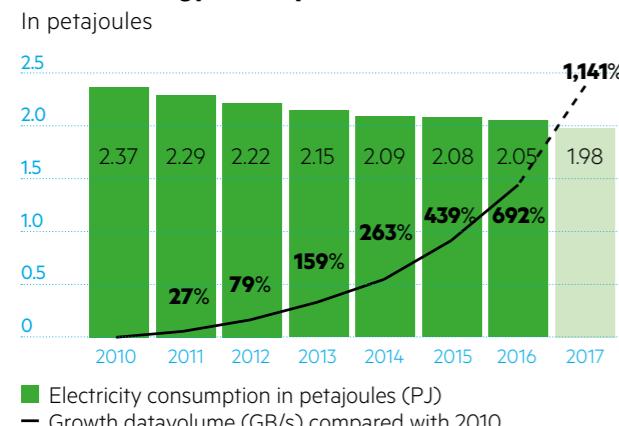
### Energy efficiency improvement

Although we have no CO<sub>2</sub>e emissions in our operations, we still focus on energy reduction, particularly electricity, given that KPN is responsible for 0.8% of the Netherlands' total electricity use. We have ambitious goals to reduce our total energy consumption, even though the volume of our data communication networks rose by 47% in 2016 and we implemented the new LoRa network. In 2016, our ongoing energy reduction programs once again lowered energy use in our operations. Our total energy reduction since 2010 is 20% (3% compared to 2015). This is in line with our target and is mostly due to savings programs in our networks and data centers.

### Networks

The majority (75%) of our electricity use is in our fixed and mobile networks. By removing or replacing old equipment with energy-efficient models and improving cooling, we saved 34.9 GWh in 2016, which is 6% of our energy consumption. This more than compensates for the additional energy use due to the network expansions. Since 2010, data communication volumes through our networks increased by 692%, yet electricity consumption in the networks is 13% lower.

#### Networks energy consumption



"Our environmental efforts are focused on reducing our environmental footprint despite exponential growth of our data communication and ICT services"

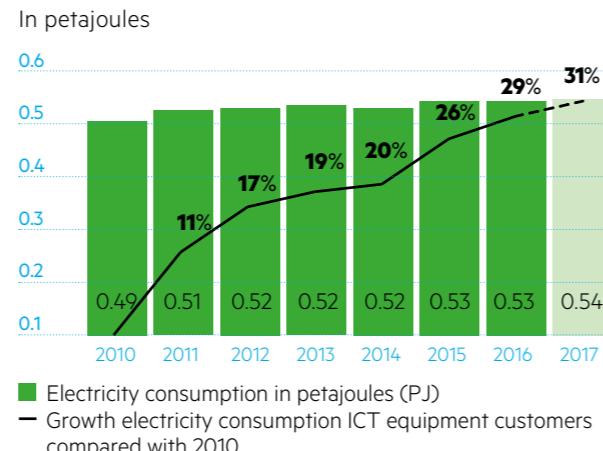
### Data centers

Although our data centers are quite energy efficient, we were still able to improve our performance. In total, energy efficiency has improved by 15% compared to 2010 and 35% compared to the start of our energy efficiency program in 2005. The additional energy savings are due to improved cooling methods and power supply. By using more air from outside for cooling instead of water we reduced both energy and water consumption. Our data center in Aalsmeer was awarded Sustainable Data Center of the year by DatacenterDynamics EMEA for reducing the energy use of the backup power supplies.

To realize negative CO<sub>2</sub> emissions we are exploring ways to reuse waste heat. We reached an agreement with the municipality of Aalsmeer in 2016 to explore the possibilities. We will start with heating a local school and a swimming pool using warm air from our data center.

For 2017, we aim to reduce our Power Usage Efficiency (PUE) by 15.5% compared to 2010. As our energy efficiency is already very high, we have to involve our neighbors for further energy reduction, although these improvements do not always reduce the PUE. For example, exchanging heat with neighbors (of the data centers) reduces energy use in total, but might influence the PUE negatively as KPN uses some extra energy to exchange the heat. Also, a major part of our data center services is related to colocation, but the way our customers fill the space they rent with ICT equipment influences KPN's PUE. Data centers used for hosting services can be more energy efficient because we can influence the ICT ourselves and influence the PUE.

#### Data centers energy consumption



### Car fuels

From 2025 onwards, we aim to only lease fossil-free cars. In the meantime, we will reduce the maximum CO<sub>2</sub> emissions of our vehicles by switching to car models with cleaner engines that emit less particulate matter. We exceeded our 2016 target to reduce car fuels for our leased cars by 38% compared to 2010. We realized 39% reduction. In 2017, as part of a wider human resources initiative, we intend to expand our mobility plan to all employees. We encourage them to be more sustainable in all transport-related areas, for example by using our own smart work solutions to commute less.

#### Car fuel consumption

In petajoules



### External recognition

KPN is recognized as a global leader for its actions and strategies in response to climate change and has been awarded a position on the CDP's 'Climate A List'. CDP aims to disclose information on the policies and performance of organizations with respect to climate change, in order to enable stakeholders and investors to take this into account when taking (investment) decisions. The 'Climate A List', which features 193 companies from around the world, is CDP produced by the CDP at the request of 827 investors with assets under management of USD 100 trillion.

Thousands of companies submit annual climate disclosures to the CDP for independent assessment against its scoring methodology. KPN is among the 9% of corporations participating in the CDP's climate change program that have been awarded a position on the Climate A List.

Furthermore, at our annual meeting with stakeholders, we discussed the potential role KPN could play in the Netherlands' move to a circular economy.

### Dilemmas

KPN is committed to the principles of a circular economy, which emphasize recycling and longer product lifespans. But technology is advancing so fast that older modems and phones must be frequently substituted by newer ones. For customers to keep enjoying the best quality user experience, they will require upgraded, multifunctional devices. This creates a dilemma between satisfying our customers with the latest, most modern technology, or extending the lifespan of existing devices.

When customers choose new mobile devices, they are primarily attracted to popular brands that have a marketing clout, but do not always deliver the best quality batteries or provide new cables with every new release. We have to choose between customer demand and sustainable products. Besides offering sustainable options like the Fairphone, we also work with international lobby groups, such as the GSMA, ITU and GeSI, to try to influence equipment suppliers to make their devices more sustainable and easier to recycle too.

### Ambition for 2030

We have extended our existing environmental performance targets until 2030. Our new targets should not only be ambitious, but make a real and science-based contribution to international climate change goals, particularly on global warming. To improve our target setting we worked with Ecofys (One Planet Thinking method) and KPMG (True Value method). Ecofys investigated how close KPN's network stays within the Earth's ecological boundaries. We committed to have targets that are science based certified.

In addition to remaining climate neutral until at least 2050 to realize the Paris Agreement, we aim to become climate neutral without compensation by 2030 and to reduce KPN's absolute energy consumption by 55% in 2030 compared to the 2010 baseline. This includes decreasing energy consumption in our networks with 60% compared to 2010 and switching to 100% CO<sub>2</sub> neutral cars from 2025.

We aim to reduce the Scope 3 emissions by 20% in 2025 and by 50% in 2040 compared to 2014. We will start with energy-related services, downstream transportation and downstream leased assets, where our influence is largest.

**Figures and methodology:** in this chapter, we describe the way we improve our environmental performance our ambitions. Detailed figures of our targets and results are shown in the highlights and laid down in Appendix 2, Overview of CSR targets and achievements. Our environmental figures for energy consumption, emissions (Scope 1, 2 and 3), carbon intensity and other environmental figures can be found in Appendix 7, Environmental figures. Calculation methods are explained in Appendix 3, Scope, reporting process and materiality determination.



› Impact of product and services

## Offering ICT solution for 21st century challenges

We believe that if policymakers, businesses, and consumers can embrace ICT transformation, we will be in a better position to achieve a low-carbon future and also realize important economic and social objectives. We are convinced that economic growth can go hand in hand with the interests of the planet. Together we can create a sustainable world.

KPI	Result 2015	Result 2016
# of elderly facilitated to live independently	n/a	<b>11,317</b>
# of ill people facilitated with self-measurement solutions	n/a	<b>12,245</b>
Growth in products that make the New Way of Living and Working possible	c/w 2014 39%	c/w 2015 <b>33%</b>
Energy savings by customers as % of KPN Group's own use (energy reduction effect of KPN products/services for customers)	49%	<b>54%</b>

## SUSTAINABLE DEVELOPMENT GOALS

### KPN supports the SDGs

Our products and services contribute to the realization of the Paris Agreement and the United Nations' Sustainable Development Goals (SDGs) for 2030. KPN focuses on the five SDGs that we can impact most with our products and services: good health and well-being; decent work and economic growth; industry, innovation and infrastructure; sustainable cities and communities; and climate action. You can find more information on the goals and our activities on [corporate.kpn.com/globalgoals](http://corporate.kpn.com/globalgoals).

The numbers in the graphics refer to the official SDG numbering and do not depict KPN's ranking.



### Digital solutions for better healthcare

The world's population is ageing, making the response to the changing healthcare needs of society a key factor in the achievement of this SDG. In the Netherlands, 14% of GDP in 2015 was spent on healthcare, but the sector still faces significant challenges. The growing group of senior citizens is creating an increasing demand for care, while the number of healthcare professionals continues to decline. In addition, the general patient demand for self-reliance is growing, with people wanting fewer and shorter stays in hospital and to live longer at home. Therefore, efficiency and productivity in care need to increase and new, affordable and secure ways of delivering care need to be developed.

Key in tackling these challenges are the new possibilities that technology offers. KPN offers end-to-end IT solutions for the healthcare sector. Around a quarter of our healthcare business

is directly related to IT, such as setting up and managing online workspaces for healthcare professionals and developing remote care services.

Healthcare providers (hospitals, general practitioners, pharmacists, etc.) use KPN's ZorgCloud to work and exchange information in a secure digital environment. It makes it quicker and easier to transfer care and consult on a diagnosis. Our system processed more than 700,000 medical records daily in 2016 – during the course of 2016, traffic doubled to around 500,000 messages. The next stop for us is to open up the ZorgCloud to patients as well as medical staff. We are working on improving the compatibility of different medical systems to make it even easier to share information. We are participating in several pilot projects to develop a secure online identity for patients to protect their medical data, as patient confidentiality is essential.

In September 2016, we launched ZorgMessenger, a mobile app that allows doctors to chat securely with patients and colleagues. About a third of doctors admit to having used WhatsApp for this purpose in absence of secure alternatives. By the end of 2016, the ZorgMessenger app had 1,715 users.

General practitioners use KPN's remote monitoring service to diagnose cardiac failure, helping over 12,245 patients. In 2016, we developed an accredited online training course to teach GPs and their assistants how to get the best results from our healthcare products, for example when doing a remote ECG scan.

In 2017, we will collaborate with partners to expand our diagnostics services. Together with them, we will work on new software for the cardiac diagnostics devices to continuously monitor heart rhythm, rather than at intervals, and make 24-hour ECG scans. We will also carry out a pilot with the University of Amsterdam to monitor patients after heart surgery at home instead of in hospital.

Wearables such as smartwatches and fitness devices could change the way doctors monitor their patients' health. Keeping track of patients remotely would require fewer appointments, saving time and money and improving the quality of care. Proposed legislation to put patients in control of their own medical records will further improve the secure exchange of medical data in the Netherlands.

"KPN is collaborating with various partners on solutions that will make cities greener, smarter, safer and more energy efficient."

### 8 DECENT WORK AND ECONOMIC GROWTH



### ICT drives good work and economic growth

Businesses are engines for work and economic growth. New technological developments, such as cloud computing, big data and artificial intelligence, will create new work and economic growth for our customers. According to the #SMARTer2030 report for the Netherlands, ICT solutions with sustainability benefits can deliver a total of EUR 74 billion in economic benefits in 2030. Of this, EUR 12 billion will be generated in the ICT sector. For example, sensors in office equipment could show when parts have to be serviced or repaired. This would improve efficiency by cutting back on preventative maintenance and reduce the use of materials for spares, which can be ordered or 3D-printed as needed.

Leveraging on these technological developments KPN has introduced an era of a New Way of Living and Working (NWLW). Within KPN this allows for a result-oriented way of working, with more focus on responsibility, entrepreneurship and discipline. This requires changes in the management of human resources. For example, performance is measured based on results rather than presence. We linked this to the SDG Decent Work and Economic Growth. As a result, we also see an effect in the community due to a different use of our provided resources, which we linked to the SDG Sustainable Cities and Communities. KPN provides the products and services that enable businesses to adopt a NWLW.

Our products and services enable our customers to conduct their business more effectively and efficiently. One of our CSR targets is to increase our internal use of NWLW products and services, but we also see these products and services as a key way to scale our impact. Another CSR target is therefore to increase the uptake of these products and services throughout the Netherlands.

We believe better insight into the effects of these products and services will help grow internal and external use, and therefore KPN initiated a first 'True Value' study into the broader contributions to society and the SDGs. In this study, we tried to identify, measure and monetize the wider environmental, social and economic impacts of NWLW at KPN in the Netherlands in 2015. The findings show part of the results of the NWLW approach as applied in our own organization.

## &gt; Impact of product and services

**Environmental impact:**

For our business, the environmental impact of NWLW is relatively low compared to its social impact. In studies like this, the fact that people don't use the office every day can cause a considerable positive impact. In the case of KPN this effect is small because KPN's own operations are climate neutral. The main factors investigated in the study are greenhouse gas emissions and avoided resource & energy use. NWLW led to greenhouse gas savings of around 9 ktons in 2015.

**Social impact:**

NWLW significantly reduces commuting, resulting in reduced time spent on travelling for employees: 48 million avoided kilometers spent on commuting in 2015, equal to 1.3 million hours. This time can be spent in the pursuit of employees' other personal and social ambitions, including spending more time at home. For society, avoided air pollution and road accidents also provide benefits for employees and local communities, and lead to reducing societal healthcare costs.

The study shows that the biggest effect is visible in prevented negative social impacts, in particular reduced travel time. The social impact appears to be much higher than the environmental impact. We find this an interesting outcome, because environmental aspects usually get more attention in traditional CSR approaches. We aim to build on this insight by looking into ways to further enhance the social impact created by the NWLW.

**Directions for the future:**

The study also considers the impact of NWLW on the professional development of KPN's employees, creating economic value for society. There is not yet a standardized way to measure and monetize the professional development of employees. We pioneered a proxy for this and the initial results show that this economic impact is potentially significant. Given the availability of the data and used assumptions the sensitivity of this value is relatively high. We intend to continue to further develop the approach to measure the economic impact.

**11 SUSTAINABLE CITIES  
AND COMMUNITIES****New technologies for smart cities**

With more people moving to cities, urban systems need to grow and adapt in a sustainable way. Again, technology plays a key part, especially through IoT solutions. KPN is collaborating with various partners on solutions that will make cities greener, smarter, safer and more energy efficient. This includes motion-controlled street lighting, bins that indicate when they need emptying and parking spaces that signal to drivers when they are vacant.

The first smart city pilots in Rotterdam have shown that motion-sensed lighting can lead to energy and cost savings of up to 80%. Smart underground bins help to cut traffic congestion as fewer collection trucks are needed and fewer roads are blocked as they empty the bins. This is more efficient and means fewer working hours, less CO<sub>2</sub>e and less air pollution. Smart parking tools aim to make cities more attractive by reducing distance driven to search for empty parking spaces, which could also reduce fuel consumption and air pollution.

**9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE****Innovation for future-proof ICT  
infrastructure**

There is an exponential growth in data traffic and demand for online services as the opportunities open up for society and businesses to thrive. As a facilitator of this change, KPN has a responsibility to ensure our infrastructure can cope with the additional demands placed on it, and to help our customers and society adapt.

We invest in innovation, which will be crucial to address the UN's global priorities for a better world. ICT can help to improve logistics for more efficient transportation, and make buildings more energy efficient. Through our investments in low-carbon ICT infrastructure and services, we help to make this possible.

We continually invest in a stronger, more robust infrastructure that can cope with this explosive growth of data traffic and online services. This includes providing 75% of Dutch households with the possibility of at least 100 Mbps internet connections and expanding our mobile reach.

By the end of 2020, global networks should be able to connect more than 50 billion things and facilitate a data connection speed of more than 1 Gbps via our mobile networks.

**13 CLIMATE  
ACTION****The potential of ICT to reduce  
environmental impact**

ICT has a significant role to play in activities to combat climate change and its global impact. According to the Global e-Sustainability Initiative's #SMARTer2030 report on the Netherlands, ICT could contribute to a saving of 74 million tons of CO<sub>2</sub>e and 5.6 billion liters of fuel in the Netherlands by 2030. As KPN's own operations are climate neutral, all our services are low-carbon services. Moreover, our customers can reduce

their own energy consumption and CO<sub>2</sub>e emissions by using our services. By using our cloud services, video conferencing and audio conferencing, for example, our business customers can meet and collaborate online, cutting back on the need for office space and the need to commute, which in turn lowers traffic and therefore energy consumption, CO<sub>2</sub>e emissions and particulate matter.

By 2020, we want our IT services to help our customers save as much energy as KPN consumes itself. We measure this 'avoided' energy consumption by calculating the impact on our consumer and business customers of specific products and services such as KPN Workspace and digital TV modems. The calculations are based on measured data, available statistics, recognized studies and expert judgments. In 2016, we did not meet our target of avoided energy use by customers. We improved the calculation method, using more accurate statistics for our calculation of avoided emissions and energy consumption by our customers. During the update we also corrected an error in the calculation. The method has been verified by Ecofys. This resulted in more accurate figures for 2014, 2015 and 2016. The 2014 and 2015 figures of Teleworking are restated due to correction of an error and an updated model (see Appendix 3). In 2015 we reported for 2014 2,283 PJ (65%), with the correction, it would have been 1,934 PJ (55%); for 2015 we reported 2,531 PJ (73%); with the correction, it would have been 2,149 PJ (62%). In 2016, we avoided energy use by customers equal to 54% of KPN Group's own energy use. In 2014 and 2015 this was 47% and 49% (including improved calculation method). Using these services helped our customers save over EUR 60 million of energy costs. We adjusted our ambition for 2020 to realize savings equal to >80% of KPN Group's energy use, based on our new services using IoT and LoRa. The first IoT and LoRa solutions we implemented in 2015 show great potential, yet the volumes need to grow to make significant impact.

The calculations are explained in Appendix 3, Scope, reporting process and materiality determination, and the numbers per service can be found in Appendix 7, Environmental figures.

**Dilemma**

KPN does not yet target consumers in the healthcare market directly. Our products and services are aimed at healthcare providers. The trend towards more privately-funded, home-based care offers opportunities to provide certain services directly to consumers, such as home-based monitoring, but puts us in direct competition with our existing healthcare customers.

While we can and do deliver end-to-end solutions for the healthcare sector, we partner with other companies to develop new ideas. Sometimes we must take a backseat on projects rather than a leading role, even though we have customer-facing experience and technical know-how, because the project's social impact is greater than the revenue it could generate for KPN.

› Compliance &amp; Risk



## Safeguarding value

Effective risk management is a key success factor for realizing the strategic objectives as it provides reasonable assurance against material misstatement or loss. For this reason, KPN has implemented an Internal Risk Management and Control System ('the control system'). This system is based on relevant criteria as set forth by the Committee Of Sponsoring Organizations of the Treadway Commission (COSO). Key components of the control system are discussed in more detail below.

Effective risk management and internal control is a continuous process involving several steps. A strong risk culture and control environment forms an important foundation of the control system. The stronger the risk culture and control environment, the better risk assessments, risk management and risk reporting will take place. After setting the strategy, the Board of Management defines its willingness to accept risks

(risk appetite) in the pursuit of strategic objectives. Management assesses the main risks that could hinder the realization of the strategic objectives and implements countermeasures to mitigate such risks, taking into account the risk appetite. Periodically, the top risks, countermeasures, trends and incidents are reported to the Board of Management, which defines further remedial actions as necessary.



Our Internal Risk Management and Control System

### 1. Implement a strong risk culture (control environment)

KPN strives for a business culture in which compliance and integrity are self-evident for all employees. This is, among others, realized by the following actions:

- › In May 2016, KPN issued a new Code of Conduct (the Code). The Code applies to all KPN employees, including the Board of Management, the Supervisory Board and temporary staff. It describes how we work in an open, transparent, honest and socially responsible way. We communicate the Code on our corporate website ([www.kpn.com/ir](http://www.kpn.com/ir)), our intranet, and via a mandatory e-learning for all our employees. We have a zero tolerance approach to bribery and corruption, fraud and all other forms of (illegal) misconduct, including

facilitation payments. We actively detect and investigate any alleged misconduct and take appropriate disciplinary action if misconduct is substantiated.

- › To strengthen the tone at the top and in other management levels, we supported management with Fraud Risk Assessments, including risk assessment on attitude and behavior, and provided integrity training upon request.
- › To emphasize desired company culture and behavior – and create awareness in the business – we developed a communication and training program on compliance and integrity subjects. Information that is important to share because of (or due to a change in) applicable policies, laws or regulations – or because of a necessity or demand in business (risk or need based) – is shared by e-learnings, workshops or classroom trainings.

- › The Business Control Framework (BCF) contains all corporate policies and guidelines that are mandatory for all of KPN's segments and entities.
- › Whistleblower: KPN requires all employees and encourages external parties to (anonymously) report any (suspicion of) misconduct by KPN employees. During 2016, our whistleblower policy was updated to reflect the changes in the Dutch Whistleblower Act, incorporating the so-called House for Whistleblowers, where employees can also externally report suspicion of misconduct.
- › Annually, we measure the state of Compliance and Integrity as perceived by our employees and report results as well as plans for improvement to top and senior management.

### 2. Objective and strategy setting

KPN's objectives and strategy are described on page 16. During the objective and strategy setting process, top management takes into account the known risks and opportunities of the company, and the company's risk appetite (see next step). The objectives and strategy are discussed with the Supervisory Board.

### 3. Define risk appetite

Pursuing any business objective inevitably leads to taking risks. Risks can jeopardize those objectives in various ways. Each type of risk encountered is being dealt with in a manner and with the intensity that matches the nature and size of the risk in relation to the risk appetite of the Board of Management. The risk appetite is the total residual impact of risks that KPN is willing to accept in the pursuit of its (strategic) objectives. The risk appetite per strategic objective or risk area is determined annually by the Board of Management. These risk areas comprise themes such as financial, operational, strategic, compliance and (information) security themes. Overall, KPN's risk appetite did not materially change compared to previous year.

Effective risk management is a key success factor for realizing our objectives. Risk areas with a low-risk appetite and thus a low acceptable residual risk require strong risk management and strong internal controls. Risk areas with a high-risk appetite require relatively less risk management and internal control effort. Our main risks and our response to those risks are summarized on page 55 of this Integrated Annual Report.

- KPN has a generally prudent risk appetite, which can be described per risk category as follows:
- › Strategic risks: in the pursuit of our strategic objectives, KPN is willing to accept reasonable risks in a responsible way, taking into account our stakeholders' interests.
- › Operational risks: KPN is committed to a high quality of

customer services and increasing NPS. We aim to limit the number of interruptions in our networks, services and systems as much as possible. We implement strict policies to keep our customer data private, safe and secure.

- › Financial risks: We strive for the right balance between a prudent financing policy, sufficient investments in the business and fair shareholder remuneration. KPN is committed to an investment-grade credit profile. Read more in Note 26 and 28 of the Consolidated Financial Statements.

- › Compliance risks: we are committed to full compliance with relevant laws and regulations and have a zero tolerance approach to bribery and corruption, fraud and all other forms of (illegal) misconduct.

- › Financial reporting risks: we have effective control frameworks in place to minimize the risk of material misstatements and errors in our financial statements.

### 4. Assess risks and countermeasures (the heart of the control system)

#### Strategic objectives

We annually assess the top risks on Group (top down approach) and Segment level (bottom up) and, where possible, we implement countermeasures to mitigate them within the defined risk appetite. We conducted risk assessment workshops with our Commercial and Operations segments, as well as with selected staff functions in the Corporate Center.

The business objectives are detailed in a strategic business plan. Every quarter, segments perform a 'most likely' forecast four to six quarters ahead on their main financials and key performance indicators (the rolling forecast). Segments update main risks and opportunities, resulting in a bandwidth of outcomes around expected performance. Each month, segment management discusses their actual performance with the Board of Management.

#### Operational objectives

KPN has business continuity plans in place to safeguard the continuity of services to customers and critical systems and processes.

**"Effective risk management is a key success factor for realizing the strategic objectives."**

## > Compliance & Risk

To manage our information security and privacy risks, we implemented the KPN Security Policy as part of the BCF (for more details, refer to the Privacy & Security paragraph on page 40).

We have implemented ISO standards in designated areas to improve operational processes. Additionally, we simplified services and processes. We implemented quality improvement plans such as 'First Time Right' and continued to focus on improving Net Promoter Scores (NPS). Risks related to climate change and compliance with new environmental legislations are incorporated in our risk management and control system. For example, flooding risks are managed in KPN's business continuity strategy. With our climate neutral performance for our own operations and continued focus on absolute energy reduction, we are well ahead to meet new regulations and customers' expectations (read more in the Environmental Performance paragraph on page 44).

### Financial objectives

KPN's Corporate Treasury department manages risks related to cash positions, finance agreements, credit ratings, currency and interest exposures, and non-life insurance (read more in Note 26 and 28 of the Consolidated Financial Statements). Treasury has defined policies with clear boundaries for these risks. Compliance with these policies is monitored frequently. As part of KPN's tax strategy, the Corporate Tax Department recommends the most tax-efficient and responsible approach in the interest of all stakeholders, while adhering to KPN's tax policy and complying with all relevant tax laws and regulations. This determines KPN's overall tax risk appetite. As KPN proactively engages with (Dutch) tax authorities, tax exposures (if any) are contained and under control. Next to a potential tax exposure, reputational risk is always part of the consideration to apply a particular tax-planning idea.

### Compliance objectives

Our Compliance Risk Assessment (CRA) framework comprises an integrated framework that oversees risks mainly related to compliance with the Dutch Telecommunications Act, competition laws and privacy regulations. For these risks, relevant processes and controls have been implemented and are continuously monitored. For risks related to our regulated business (with significant market power), compliance controls are tested by dedicated staff all year round.

### Financial reporting objectives

Our internal controls for Reliable Financial Reporting (Also known as RFR GRIP) ensure that material misstatements in KPN's Financial Statements are prevented or detected in a timely manner. Each quarter, the Risk & Compliance department (R&C) and KPN Audit assess the overall effectiveness of the controls before publication of the quarterly figures. The internal evaluation conclusions, as discussed with the Board of Management and the Audit Committee, were in line with the observations discussed in the report of the external auditors as part of their audit of the 2016 Financial Statements.

The Disclosure Committee examines all reports and documents containing financial information that are intended for external publication, to ensure that these fairly present KPN's financial position and results.

## 5. Report top risks, trends and incidents

Segment management provides the Board of Management with a quarterly assurance letter regarding the reliability of their financial reporting, the effectiveness of their internal controls over financial reporting, risk management and compliance with telecommunication laws, internal policies and other laws and regulations. Twice a year, R&C reports top risks and countermeasures to the Board of Management, including main improvement actions, if any.

### Summary of main risks and countermeasures

In the table on the right page a summary is given of KPN's main risks and countermeasures, including its expected trend and impact. It also lists the KPIs that are used to monitor the development of the risks and the realization of our risk appetite. The KPIs are frequently monitored in KPN's planning and control cycle and discussed in the Board's business reviews with segment management, including improvement actions where necessary.

For a more extensive list of our main risks and countermeasures, please refer to the Appendix included in the digital version of this Integrated Annual Report available on our website ([www.kpn.com/annualreport](http://www.kpn.com/annualreport)).

### Internal Audit

KPN's internal audit function, KPN Audit, is – in line with Dutch Corporate Governance requirements – an integral part of the Internal Risk Management and Control System and provides assurance to both the Board of Management and the Audit Committee concerning the 'In Control status' of KPN Group segments/units/entities and processes.

KPN Audit provides quality assurance on the RFR GRIP framework on a quarterly basis and conducts ad hoc financial, information technology and operational audits and special investigations. KPN Audit conducts its activities in a manner based on a continuous evaluation of perceived business risks, and has full and unrestricted access to all activities, documents/records, properties and staff. The Chief Auditor reports to KPN's CEO. Quarterly KPN Audit reports are submitted and discussed with both the Board of Management and the Audit Committee. KPN Audit liaises extensively with the external auditor, inter alia based on International Standard on Auditing 610.

Risk	Main countermeasures	Impact
Increased competition from current competitors, new market entrants, OTT players, market consolidation or new (disruptive) technologies*. Trend: →	<ul style="list-style-type: none"> <li>Offer bundled services and competitive price/portfolio combinations</li> <li>Improve NPS and invest in quality of service</li> <li>Introduce new innovative products and services to meet changing customer needs</li> <li>Strategic partnerships with OTT players, online channels and shops</li> <li>Implement an agile organization, technology and processes to enable swift response to new market developments</li> <li>Small in-country M&amp;A and KPN Ventures to form partnerships with innovative companies.</li> </ul>	High; the described risk could lead to lower profitability as well as lower market shares. <b>Monitoring KPI:</b> > Market shares
Damage, service interruptions, operational issues in KPN's technical infrastructure and IT. Trend: →	<ul style="list-style-type: none"> <li>Monitor performance of technical infrastructure and IT</li> <li>Strengthen and simplify the IT and continue implementation of the KPN Security Policy</li> <li>Back-up and recovery plans in case of emergencies (e.g. 'be alert' procedures)</li> <li>Simplification programs to simplify and rationalize IT/TI.</li> </ul>	Medium; the incidents could negatively impact KPN's reputation, customer satisfaction and profitability. <b>Monitoring KPI:</b> > NPS NL > Weighted Downtime Reduction > Quality of networks and platforms (customer perception) > # Service tickets.
Threats to the confidentiality, integrity or availability of KPN's networks, systems or (customer) data caused by cyberattacks* or terrorism. Trend: ↗	<ul style="list-style-type: none"> <li>Continue and reinforce strategic security programs, such as Permanent Vulnerability Management</li> <li>Continue and strengthen Security Operations Center to improve security visibility and risk intelligence</li> <li>Increase awareness of personnel for security and privacy.</li> </ul>	High; the incidents could lead to loss of customer data, higher costs, penalties and reputational damage. <b>Monitoring KPI:</b> > PHOSI (Potential Harm Of Security Incident) > Average days to close incidents and vulnerabilities.
Non-compliance with regulation, including – but not limited to – privacy regulation. New regulatory decisions in the EU and the Netherlands. Trend: →	<ul style="list-style-type: none"> <li>Strengthening the effectiveness of the compliance organization by compliance training sessions for staff and management</li> <li>Proactive internal compliance investigations</li> <li>Surveys and culture improvement programs</li> <li>Improving and maintaining robust internal controls</li> <li>Proactive stakeholder and reputation management including dialog with regulators.</li> </ul>	Medium; the risk could affect KPN's future operations and profitability. <b>Monitoring KPI:</b> > Fines > # data leakages.
Frequency auctions in the Netherlands could entail high costs. Trend: →	<ul style="list-style-type: none"> <li>Preparation of auctions by experienced KPN team and external experts; simulation of auctions</li> <li>Use alternative combinations of spectrum and advanced techniques to meet required technology.</li> </ul>	High; KPN may have to pay a high price for the required spectrum. <b>Monitoring KPI:</b> N.A.
Inadequate access to (debt) capital markets to finance our operations and refinance our outstanding debt. Trend: ↘	<ul style="list-style-type: none"> <li>Commitment to investment-grade credit profile</li> <li>Maintaining a strong liquidity position and prefunding debt redemptions</li> <li>Monitoring and forecasting of metrics used by rating agencies</li> <li>Maintaining discipline in allocating capital to investment opportunities and shareholder remuneration.</li> </ul>	High; due to this risk, KPN might not be able to maintain its current credit ratings, which could negatively affect pricing and availability of financing resources. <b>Monitoring KPI:</b> Multiple KPIs such as Credit rating and Net debt/EBITDA ratio.
Dependence on suppliers and outsourcing/offshoring partners to obtain adequate telecommunications equipment, software and IT services. Trend: →	<ul style="list-style-type: none"> <li>Establish a strong and centralized demand and contract management organization that defines, enforces and monitors suppliers' compliance with terms of contracts</li> <li>Include a right-to-audit clause in supplier contracts and conduct regular audits</li> <li>Prepare re-transition plans as fallback scenario.</li> </ul>	Medium; this could lead to an inability to deliver the required services to our customers at the right price and quality level. <b>Monitoring KPI:</b> > % spend reduction.
Group equity position could be negatively impacted by impairments of goodwill or other assets, lower profits or by dividend payments. Volatility in the share price of Telefónica Deutschland could lead to an impairment of KPN's 15.5% stake, which could impact our consolidated profits and equity position. Trend: →	<ul style="list-style-type: none"> <li>Improve profitability of KPN Group</li> <li>Balanced shareholder remuneration in relation to profit and cash flow development</li> <li>Monitor shareprice of Telefónica Deutschland.</li> </ul>	Medium-high; could lead to Group equity lower than self-imposed minimum thresholds. <b>Monitoring KPI:</b> > Group equity position > Shareprice TEFID.

↗ risk is increasing (worsening) → risk is stable ↘ risk is decreasing (less bad)

\* The risks marked with a \* are important long-term (3-5 years) emerging risks as having the most significant impact on our future revenues, EBITDA, cash flow and reputation

## > Compliance & Risk

### Governance of Risk management and Compliance – three lines of defense

Although the Board of Management is ultimately responsible for risk management and compliance, it is business management's duty to effectively identify, assess and manage the main risks of the company, in line with the steps discussed in the previous paragraphs (first line of defense). The Risk & Compliance department (second line) is responsible for the design of the Risk management and Compliance policies and to support and challenge business management in their assessment and management of top risks. KPN Audit (third line) performs, where necessary, independent reviews on the implementation of the risk management processes. The main results of the risk assessments and evaluation of the internal risk management and control systems, are shared with the Audit Committee of the Supervisory Board and discussed with the external auditor.

### Improvements in the internal control system and examples of risks that materialized in 2016

During 2016, KPN improved the internal control system further. For example, KPN strengthened the internal control frameworks for information security (such as protecting its systems against cyberattacks, for more information please refer to the Privacy & Security paragraph) and Reliable Financial Reporting.

During 2016, KPN was subject to five penalty cases for breaches of the law, all relating to telecommunication law. The penalties were all imposed before 2016; four cases are still pending a final court-decision, amounting to EUR 9,573,000, of which EUR 8,640,000 was preliminarily paid in accordance with Dutch regulations.

One case, where ACM imposed a fine on KPN of EUR 364,000, after a hacker successfully broke into KPN's network in 2012, was concluded on November 16, 2016, when the highest administrative court ruled that ACM had correctly imposed the fine.

In September 2016, there was a disruption of our voice, Internet and IPTV services. As a consequence, an important portion of our customers could not use Internet, fixed telephony and IPTV for a large part of that day.

"The manner in which the business embraced the new Code of Conduct tells us our values have already been embedded in our day-to-day operations"

### In Control Statement and Responsibility Statement

The Board of Management is responsible for KPN's Internal Risk Management and Control System. This system is designed to manage the risks that may prevent KPN from achieving its objectives. However, this system cannot provide absolute assurance that material misstatements, fraud and violations of laws and regulations can be avoided. The Board of Management reviewed and analyzed:

- > The strategic, operational, financial, financial reporting and regulatory and compliance risks, as discussed in paragraph 'Summary of main risks and countermeasures' on pages 54 and 55; and
- > The design and operating effectiveness of the Internal Risk Management and Control system, as discussed on pages 52 to 56 of this Integrated Annual Report.

The outcome of this review and analysis was shared with the Audit Committee and Supervisory Board and discussed with KPN's external auditors.

With reference to best practice provision II.1.5 of the Dutch Corporate Governance Code, the Board of Management, to the best of its knowledge, believes that the Internal Risk Management and Control System, with regard to financial reporting, worked properly over 2016 and that the Internal Risk Management and Control System provides a reasonable assurance that the financial reporting does not contain any errors of material importance.

With reference to section 5.25c paragraph 2c of the Financial Markets Supervision Act, the Board of Management states that, to the best of its knowledge:

- > The Financial Statements of 2016 give a true and fair view of the assets, liabilities, financial position and profit or loss of KPN and its consolidated companies; and
- > The Integrated Annual Report gives a true and fair review of the position as at December 31, 2016, the development during 2016 of KPN and its Group companies included in the Financial Statements, together with a description of the top risks KPN faces.

The Hague, February 23, 2017

#### Eelco Blok

Chairman of the Board of Management and Chief Executive Officer

#### Frank van der Post

Member of the Board of Management and Chief Commercial Officer

#### Jan Kees de Jager

Member of the Board of Management and Chief Financial Officer

#### Joost Farwerck

Member of the Board of Management and Chief Operations Officer



&gt; Sustainable employment

## Transforming into a future-proof organization

Through our activities in 2016 we continued to contribute to the transformation of KPN into a simpler, more focused organization that is ready for the future.

**KPI**

Overall percentage of women at KPN in the Netherlands

**Result 2015****25%****Result 2016****24%**

Employee survey score on Sustainable employability

Sustainable employability: % of employees with a new job < 1 year after leaving KPN

% of KPN employees in the Netherlands who feel they can work in line with the New Way of Living and Working

1) overall engagement 77%  
2) working environment 59%  
3) strategy & leadership 51%

Engagement: 77%  
Sustainable employability/  
Fit for the future: 58%

**83%****87%****80%****82%**

### Building a solid organization

#### Operational excellence; improving the employee journeys

The objective of the operational excellence program is to achieve a positive employee experience of HR service delivery: simple and of good quality. To support this we identified six HR value chains that will stimulate operational excellence and improve performance. This covers the working conditions (e.g. salary processes), hire and retire processes, sustainable employability (e.g. absenteeism), learning and development and mobility. Methodologies used to optimize the employee journeys are chain management and the use of HR data and HR analytics results. Results show a decrease of incidents in HR Service delivery (-26% in 2016 compared with 2015) and an improvement in employee satisfaction with HR Services (+1 January 2015 to June 2016).

#### Simplification of the organization

Automation is simplifying our processes, leading to greater efficiency and increased productivity. However, it means we require fewer people to do the work. In 2016, this, along with the ongoing simplification of our business and the introduction of a functional organization structure with fewer segments, led to the reduction of 529 FTEs in the commercial division and 17 FTEs in the operational division (read more in Note 5 for further details). We expect this trend will continue. A trial with robots in a call center proved to be effective and we predict this will become more prevalent in customer service and retail in the future. In line with the reductions in our operational

and commercial divisions, the Corporate Center and Finance (including the Shared Service Organization) realized a reduction of 83 FTEs in 2016.

#### A connected workplace

We planned and partially implemented a resettlement of the KPN offices in the Randstad area into modern hubs that put the new way of working into practice. The result will be a working environment that enhances cooperation between teams and where specific areas are designed for tasks such as meetings, video conferencing or concentrated working. We want our offices to be attractive workplaces that fully utilize our technical capabilities. At the same time we want to maximize occupancy rates at KPN premises while guaranteeing accommodation for all our employees.

We have refurbished our office in Amsterdam according to these new standards. Our offices in Rotterdam and The Hague will follow in 2017. Our employee engagement survey regarding working environment found 58% people are positive about their working environment.

#### Creating sustainable employability

##### Future of Work

Working in a technology-led environment, characterized by frequent and disruptive change, demands employees to be self-aware and act responsibly. In 2016, the Future of Work

(FoW) program played an important role in our continuous focus on sustainable employability. HR worked together with senior management to develop a joint vision of relevant trends, their impact on our organization and people, and how to respond to be fit for the future. We raised awareness among our employees on the importance of their own development to remain employable in the future. We help them by investing in their craftsmanship, vitality and resilience. This is supported by our existing initiatives such as the KPN Academy and job-related training.

The number of training requests using the available Employability budgets grew by more than 50% compared to 2015. Our employee engagement survey shows that 82% of people said they felt able to discuss their development with their managers. This is higher than in 2015. Part of our commitment to employability is to work with external partners to place people in new roles, also outside KPN. In 2016, 87% of employees who participated in an outplacement process were moved to new jobs outside KPN. This is in line with our target. In our new CLA (Collective Labor Agreement) we identified three situations that employees could experience regarding employment security within KPN: 1) not expected to become redundant in the short term, 2) a redundancy situation is expected, 3) redundancy is certain. We support our people with dedicated development tools in all of these situations.

#### Attracting, retaining and developing our people

To attract talent in today's competitive labor market we repositioned KPN as a dynamic employer in a rapidly-changing sector. The 2016 recruitment campaign is built around making an impact by creating a better, more free and easier life for our customers and for ourselves. The campaign is supported by a new website and we initiated a tour around Dutch universities and college campuses to recruit new graduates. Intermediary magazine's annual brand image survey found highly skilled professionals rank KPN as the number one Dutch telecoms provider they would most like to work for, and number 13 overall in 2016, compared to number 15 in 2015.

In our annual employee engagement survey scores on Strategy and Leadership increased to 53% (compared with 51% in 2015) and 73% of employees said they would recommend us as an employer. Pride in the company rose to 77%, mainly because more employees would recommend KPN as an employer and more employees are proud to work for KPN. We didn't meet our target on sustainable employability/fit for the future, due to changed priorities and consequently less focus on lifecourse aware HR policies and vitality as originally intended. This is also the reason that we did not publish a new ambition.

#### Health and vitality

Another focus area for HR is the health and vitality of our employees. We believe that healthy workers are more engaged, can cope better with everyday stresses and are

better prepared for their future. It also helps to combat absenteeism. In 2016, this was 4.0%, in line with our target. This result is partly due to the emphasis on the role of managers in managing absenteeism and initiatives to support them in doing so.

We continued to offer initiatives in 2016 such as stress management workshops and mindfulness training. At XS4ALL we started a fit4all initiative in response to a low score from employees to the question in the employee survey about the role of KPN in creating and promoting healthy working conditions and lifestyle.

#### Diversity and Inclusion

We believe that our workforce should reflect our customer base and society and that diverse viewpoints and perspectives help teams achieving better results. One of our initiatives to become a more diverse company is an internal training for customer service professionals with a relatively weak position in the labor market. Of these trainees, 85% graduated on MBO level (secondary vocational training). Half of them found a job within KPN, Telfort or other organizations.

According to Workplace Pride, the international platform for LGBT inclusion at work, we are the fifth most LGBT-inclusive (Lesbian, Gay, Bisexual and Transgender) employer in the world (compared to the seventh place last year). KPN also supports the Workplace Pride Chair that will be initiated at Leiden University and focuses on how we can improve LGBT inclusion in the workplace.

With regard to gender diversity we have 19% women in top management, 17% women in middle management and a total of 24% women across the company. In our company, we remain committed to reaching 30% in the longer term and will step up our efforts in 2017 by enforcing our recruitment activities and including these targets in business plans.

"We raised awareness among our employees on the importance of their own development to remain employable in the future"

&gt; Sustainable suppliers

## Solutions for a sustainable supply chain

We work closely with our suppliers to improve the quality and environmental friendliness of our equipment and products and to save costs and reduce the environmental footprint. Our business partners share our commitment to a sustainable future and are committed to international agreements, laws and regulations related to good working practices.

**KPI**

Result 2015      Result 2016

% realized improvements on corrective action plans

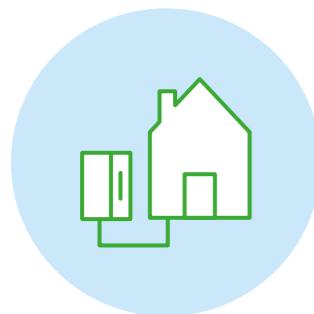
58%      77%

During 2016, we continued our ongoing program to simplify our supply chain and align the suppliers we work with, including startups, entrepreneurs and smaller companies. This has contributed to sustainable savings that are included in the run-rate simplification savings as explained on page 28.

An area of procurement we are paying close attention to is KPN's transition into a more circular business model. We are looking at ways our suppliers can help us extend the lifespan of equipment and products and make them more recyclable and use increasingly more recycled contents in their products.

### Sustainable developments

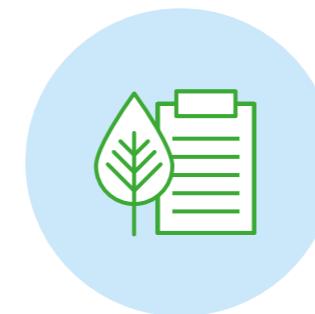
In 2016, together with our suppliers, we implemented the following sustainable solutions:



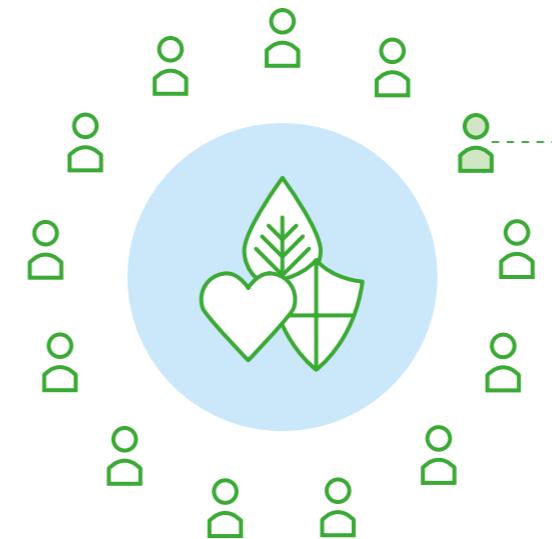
> We made a new fiber termination unit that is 75% smaller and lighter than the existing units. These are the units that connect the fiber cables to people's homes. We expect this will save 32.7 tonnes of plastic in 2017. The new units will only be used for new installations and inevitable replacements as the existing units have a 30-year lifespan and will not be replaced.



> Product innovation by one supplier resulted in an IT server that can cope with more data while being more energy efficient. After a successful pilot, we placed 24 of these new type of servers instead of the old ones. This led to energy savings of more than 0.22 GWh/y, equivalent to the annual energy consumption of 66 households.



> The user manuals for our modems and TV set-top boxes were replaced with quick reference cards. Customers indicated they don't use the manuals often and prefer to look up information on the Internet. This will save about 268 tons of paper and EUR 660,000 yearly based on amount of usage consistent with the previous full year.



KPN is a member of the Joint Audit Cooperation, an association of 13 telecom operators aiming to verify, assess and develop Corporate Social Responsibility (CSR) implementation across the manufacturing centers of important multinational suppliers to the information and communications technology (ICT) industry.

"To really have impact as a circular company KPN will have to influence both the supplier side and the business side. This is broadening the role of procurement beyond supply chain efficiencies"

group in 2016 to look into this, the European Partnership for Responsible Minerals. It integrates the activities of the IDH (Sustainable trade initiative) working group. KPN stipulates in its supplier contracts that they have to comply with international guidelines on conflict minerals as well as JAC standards for sustainable mining.

### Dilemma

While the sustainability of products and equipment is a clear priority for KPN, so are quality and price. Sometimes we have to compromise on one of these to come up with the best quality product at the best price. We continuously work with our suppliers to move sustainability and a circular economy higher up on their agendas. However, this remains a continuous challenge.

### Respecting and promoting respect for human rights

In accordance with the UN Guiding Principles on Business and Human Rights, KPN is committed to respecting the 10 guiding principles relating to freedom of expression, the protection of human rights by states and the respect of human rights by operators.

In our Supplier Code of Conduct, which forms the basis of our agreements with suppliers, we ask our suppliers to support and respect the protection of internationally proclaimed human rights. We ask them to operate in the spirit of the Charter of the United Nations.

For a full overview of our supply chain, see our online website about our supplier policy: <http://corporate.kpn.com/company-kpn/csr/procurement.htm> (full overview of the supply chain can be downloaded by clicking the link in the last sentence on the page).

>Corporate governance

## Stable steering in a dynamic environment

The corporate governance framework of KPN is based on our strategy and in line with the requirements of the Dutch Civil Code, the Dutch Corporate Governance Code as well as applicable securities laws. Furthermore, the company is governed by its Articles of Association and internal procedures, such as the by-laws of the Board of Management and the Supervisory Board.

### Legal structure of the company

Royal KPN N.V. is a public limited liability company established under the laws of the Netherlands, with ordinary shares listed on Euronext Amsterdam. The Articles of Association of KPN were last amended on June 23, 2016.

KPN has a two-tier management structure with a Board of Management and a Supervisory Board. KPN qualifies as a 'large company' (structuurvennootschap) within the meaning of the Dutch Civil Code and applies the relevant rules of Dutch corporate law. The Board of Management is entrusted with the management of the company.

The Supervisory Board oversees strategic and commercial policymaking by the Board of Management and the way in which it manages and directs KPN's operations and affiliated/associated companies. In the performance of their duties, the members of the Board of Management and the Supervisory Board are guided by the interests of the company and the enterprise connected therewith. The Board of Management is accountable to the General Meeting of Shareholders in accordance with Dutch legislation.

Read more in Note 33 to the Consolidated Financial Statements for details on KPN's legal structure.

### Shareholders

#### Share capital, listings and indices

KPN authorized capital stock totals EUR 720 million, divided into 9 billion ordinary shares of EUR 0.04 each and 9 billion preference shares B of EUR 0.04 each. As of December 31, 2016, a total of 4,270,254,664 ordinary shares were outstanding. Since June 13, 1994, KPN's ordinary shares have been

**"Application of sound corporate governance principles is important for KPN. It should however not be an end in itself. The true aim is to achieve and maintain a culture of honesty and integrity"**

listed on Euronext Amsterdam (ticker: KPN). KPN has a Level I ADR program, which allows investors to trade KPN ADRs in the United States on the Over-The-Counter market (ticker symbol: KKNY). KPN shares are included among others in the following leading indices: AEX, EURO STOXX Telecommunications Index and STOXX Europe 600 Telecommunications Index.

#### General Meeting of Shareholders

The General Meeting of Shareholders holds all powers that have not been granted to other company organs. It has the authority to appoint members of the Supervisory Board upon binding nomination by the Supervisory Board and to dismiss the Supervisory Board. The General Meeting of Shareholders is also entitled to adopt the Financial Statements, release the members of the Board of Management and Supervisory Board from liability, determine the dividend, determine the remuneration for each member of the Supervisory Board and approve the remuneration policy and share (option) plans for the Board of Management. Furthermore, a number of decisions are subject to the approval of the General Meeting of Shareholders, including decisions entailing a significant change in the identity or character of the company or its business and various corporate matters such as proposals to amend the Articles of Association of the company, to (de) merge or to dissolve the company, or to issue shares or reduce the issued capital of the company.

Within four months from the end of every fiscal year, the Board of Management prepares Financial Statements accompanied by an Annual Report. The Financial Statements are submitted to the Supervisory Board for approval. The Supervisory Board submits the approved Financial Statements to the Annual General Meeting of Shareholders for adoption together with the Annual Report for discussion. At the same time, the Board of Management submits the approved Financial Statements to the Central Works Council for information purposes.

Adoption of the Financial Statements does not automatically discharge the Board of Management or the Supervisory Board from liability. This requires a separate resolution by the General Meeting of Shareholders. An Annual General Meeting of Shareholders is held within six months of the end of a fiscal year to discuss the Annual Report and to approve the Financial Statements.

Other General Meetings of Shareholders are held as often as the Supervisory Board or Board of Management deem necessary. The Board of Management and the Supervisory Board determine the agenda of the General Meetings of Shareholders. Shareholders who individually or collectively represent at least 1% of the issued capital or who, according to the Official Price List of Euronext Amsterdam, represent at least a value of EUR 50 million have the right to propose items for the agenda. Every shareholder has the right to attend a General Meeting of Shareholders in person or through written proxy, to address the meeting and to exercise voting rights.

#### Obligations to disclose holdings

Pursuant to the Dutch Financial Supervision Act (Wet op het financieel toezicht or Wft), legal entities as well as natural persons must immediately notify the Dutch Authority for Financial Markets (AFM) when a shareholding reaches, exceeds or falls below certain thresholds of the issued capital. The AFM incorporates these notifications in the public register, which is available on its website. Read more in Note 31 to the Consolidated Financial Statements for the KPN shareholding as at December 31, 2016.

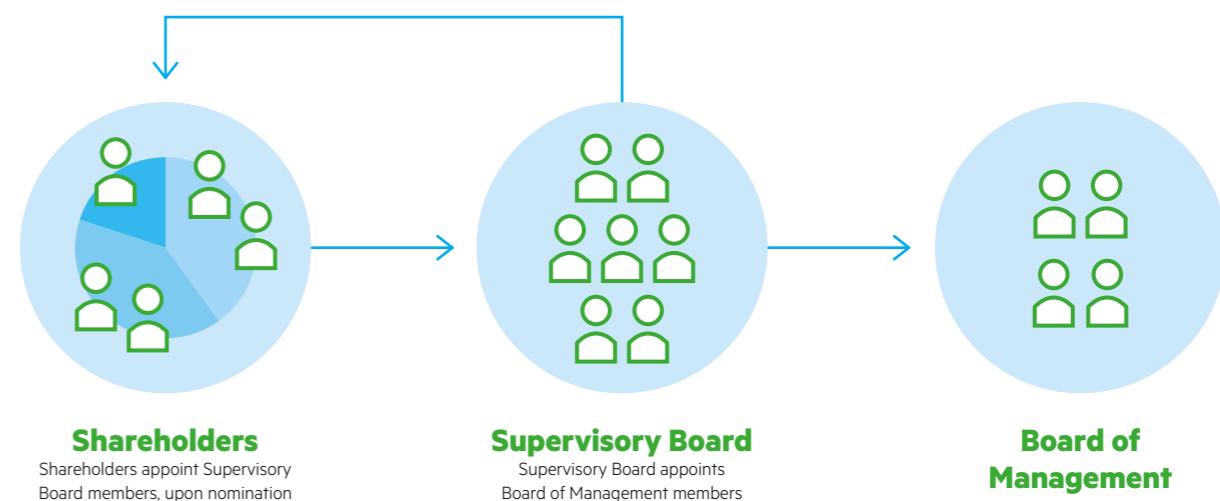
#### Purchase of shares in the company's own capital and issue of new shares

The General Meeting of Shareholders authorized the Board of Management (for a period of 18 months until October 13, 2017)

to purchase shares in the company's own capital with the aim to service incentive plans for management and personnel. The number of ordinary shares to be acquired is limited to a maximum of 10% of the issued capital per April 13, 2016.

The General Meeting of Shareholders provided authority to reduce the issued capital through cancellation of own shares held by the company in accordance with the Articles of Association, with the aim to further optimize the equity structure of the company. The number of shares to be canceled following this resolution will be determined by the Board of Management and is limited to a maximum of 10% of issued capital as per April 13, 2016. The General Meeting of Shareholders has designated the Board of Management as the body authorized to issue ordinary shares and to grant rights to subscribe for ordinary shares and to restrict and to exclude statutory pre-emptive rights of existing shareholders upon the issuance of ordinary shares or the granting of rights to subscribe for ordinary shares (for a period of 18 months, until October 13, 2017), with the aim to ensure continuing financial flexibility of the company. This authority is limited to a maximum of 10% of the issued capital as per April 13, 2016.

Resolutions by the Board of Management to acquire the company's own shares, to issue ordinary shares, to grant rights to subscribe for ordinary shares, or to restrict or exclude pre-emptive rights are subject to the approval of the Supervisory Board.



Please see 'Composition of the Boards' starting on page 66, for information on the composition of the Board of Management and the Supervisory Board, Insider transactions and share ownership by the members of the Board of Management and Supervisory Board.

## > Corporate governance

### **Supervisory Board**

The Supervisory Board oversees strategic and commercial policymaking by the Board of Management and the way in which it manages and directs KPN's operations and affiliated/associated companies. Members of the Supervisory Board are appointed by the Annual General Meeting of Shareholders upon binding nomination by the Supervisory Board. The Central Works Council has an enhanced right to recommend persons for nomination to the Supervisory Board for up to one-third of its members. The Supervisory Board must nominate the recommended persons unless it is of the opinion that any such person would be unsuitable to fulfill the duties of a Supervisory Board member, or such appointment would cause the Supervisory Board to be improperly constituted.

Pursuant to a specific arrangement with América Móvil, América Móvil has a right to designate one person to be nominated by the Supervisory Board for appointment as a member of the Supervisory Board.

According to the Articles of Association, the Supervisory Board must consist of at least five and not more than nine members. Members of the Supervisory Board resign according to a schedule set by the Supervisory Board. A member steps down at the first Annual General Meeting of Shareholders following their four-year term in office. In line with the Dutch Corporate Governance Code, members can be reappointed twice, leading to a maximum term in office of 12 years.

The Supervisory Board has determined its 'profile', defining the basic principles for its composition. All nominees for election to the Supervisory Board must fit this profile. According to this profile, the Supervisory Board must be composed in such a way that members of the Supervisory Board are able to operate independently of each other and of the Board of Management. The profile is available on KPN's website.

The by-laws of the Supervisory Board contain, among other things, rules regarding the members' duties, powers, working methods and decision-making, what decisions by the Board of Management it must approve, training and conflict handling. The by-laws are available on KPN's website.

**"In order to obtain sufficient outside reflection, an Advisory Board consisting of external experts discusses CSR issues with the Steering Committee 'KPN in Society'."**

### **Committees of the Supervisory Board**

The Supervisory Board has four committees: the Audit Committee, the Remuneration Committee, the Nominating and Corporate Governance Committee, and the Strategy and Organization Committee. These committees assist the Supervisory Board in its decision-making and report their findings to the Supervisory Board. The tasks of these committees are laid down in charters, which are available on KPN's website. Further information on the activities of the committees in 2016 can be found in the section 'Supervisory Board Report' starting on page 72.

### **Board of Management**

The Board of Management manages KPN's strategic, commercial, financial and organizational matters, and appoints senior managers. The Supervisory Board appoints and discharges members of the Board of Management and establishes their individual remuneration within the boundaries of the remuneration policies approved by the General Meeting of Shareholders.

The by-laws of the Board of Management contain, among other things, rules regarding the members' duties, powers, working methods and decision-making and conflict handling. The by-laws are available on KPN's website.

### **Corporate Social Responsibility (CSR) governance**

CSR is embedded in accordance with the hierarchical structure within KPN. Every CSR theme is assigned to a theme owner, a member of the senior management who is responsible for stakeholder dialogue, targets, progress and results. Every five weeks, these theme owners come together in the Steering Committee 'KPN in Society' to align initiatives and review progress against targets. This Steering Committee is chaired by KPN's CSR Manager, who is responsible for the overall reporting, approach and coherency. Four times a year, CSR data is included in the overall set of business KPIs that is reported to the Board of Management. The CSR Manager reports to the Director Corporate Communication & CSR, who is responsible for the communication to the Board of Management.

To ensure business commitment, managers of all departments involved in one of the themes take part in the Steering Committee for that CSR theme. Those committees, headed by the theme owner, coordinate activities and report the CSR data.

In order to obtain sufficient outside reflection, an Advisory Board consisting of external experts discusses CSR issues four times a year, since 2011, with the Steering Committee 'KPN in Society'.

### **Compliance with the Dutch Corporate Governance Code**

As a Dutch listed company, KPN applies the Dutch Corporate Governance Code. KPN complies with all best practice provisions thereof. The text of the Dutch Corporate Governance Code as well as KPN's application thereof in accordance with the "apply or explain" principle is available on KPN's website.

In December 2016, the Monitoring Committee Corporate Governance published a new version of the Dutch Corporate Governance Code. Once confirmed by the government, it will apply over KPN's financial year 2017, and KPN will report on its compliance with the new code in its Integrated Annual Report over 2017.

### **Conflict of interest**

The handling of conflicts of interest between the company and members of the Board of Management or Supervisory Board is governed by Dutch law, the relevant provisions of the Dutch Corporate Governance Code and the by-laws of the respective Board.

A Board member is required to immediately report any conflict of interest or potential conflict of interest that is of material significance to the company and/or to the member concerned, to the Chairman of the Supervisory Board (or, in case of the Chairman, to the Vice-Chairman of the Supervisory Board). The relevant Board member shall not take part in any discussion or decision-making on a subject in which he has a conflict of interest. Decisions to enter into transactions in which there are conflicts of interest with members of either Board that are of material significance to the company or such member require the approval of the Supervisory Board.

During 2016, no conflicts of interests occurred.

### **External auditor**

The external auditor is responsible for the audit of the financial statements. The external auditor reports to the Board of Management, the Audit Committee and the Supervisory Board to discuss findings pertaining to their agreed upon procedures or audit of the quarterly and annual financial results. The external auditor attends the Annual General Meeting of Shareholders to answer questions pertaining to the combined independent auditor's report as included in the Integrated Annual Report. The Audit Committee approves every engagement of the external auditor, after pre-approval by the internal auditor in order to avoid potential breaches of the external auditor's independence. All Audit Committee meetings were attended by the external auditor. The General Meeting of Shareholders appoints the external auditor on a yearly basis, upon recommendation by the Board of Management and the Supervisory Board. For the role of internal audit see page 74.

### **The Foundation Preference Shares B KPN (Stichting Preferente Aandelen B KPN)**

KPN has granted a call option, which is not limited in time, to the Foundation Preference Shares B KPN (the Foundation), to acquire a number of preference shares B in KPN, which have the same voting rights as ordinary shares, not exceeding the total issued amount of ordinary shares, minus one share and minus any shares already issued to the Foundation. Upon exercise of the call option, 25% of the nominal value of EUR 4ct per Class B preference share needs to be paid by the Foundation. According to its Articles of Association, the statutory goal of the Foundation is "to protect KPN's interests (which includes the interests of stakeholders, such as customers, shareholders and employees), by, among others, protecting KPN from influences that may threaten the continuity, independence and identity". Consequently, in the event of any circumstances where the company is subject to influences as described above and taking public security considerations into account, the Board of the Foundation may decide to exercise the call option, with a view to enabling the company to determine its position in relation to the circumstances as referred to above, and seek alternatives. The Board of the Foundation is of the opinion that under normal circumstances it should not exercise its voting rights for longer than a limited period.

The members of the Board of the Foundation are J.H. Schraven (Chairman), P. Bouw (Vice-Chairman), M.W. den Boogert, H. Zwarts and J.E.F. Klaassen. As of January 1, 2017 P. Bouw stepped down and Mrs. A.P. Aris was appointed as member of the Board of the Foundation. The Board of Management has concluded that the Board of the Foundation is independent from KPN in accordance with parts c and d of the first subsection of article 5:71 of the Dutch Financial Supervision Act.

The views of the Board of the Foundation, summarized above, have been published on the Foundation's website ([www.prefs-KPN.nl](http://www.prefs-KPN.nl)).

### **Telecommunication and national security**

The Dutch government is considering legislation which should enable it to influence a potential take over of a company providing telecommunications services in the Netherlands, for reasons of national security. Draft legislation is expected in the course of 2017.

Please find the In Control Statement and Responsibility Statement on page 57.

## &gt; Composition of the Boards

## Supervisory Board

KPN's Supervisory Board currently consists of seven members. The composition of the Supervisory Board did not change in 2016. At the Annual General Meeting of Shareholders of April 13, 2016, Mr. P.A.M. van Bommel was re-appointed as member of the Supervisory Board.

Mr. Spanbroek, General Counsel and Company Secretary, acts as secretary to the Supervisory Board. All members of the Supervisory Board comply with clause 2:142a of the Dutch Civil Code, which limits the number of positions in a supervisory or management board that a director may hold.

Two vacancies will arise at the closure of the Annual General Meeting of Shareholders in 2017, as Mr. García Moreno Elizondo and Mr. Haank will step down as they will reach the end of their four-year term of office.



### D.W. Sickinghe

Mr. Sickinghe was appointed Chairman of the Supervisory Board on April 15, 2015.

Mr. Sickinghe is Managing Director of Fortino Capital (Belgium).

Furthermore, he is Chairman of the Supervisory Board of Van Eeghen & Co (the Netherlands), member of the Board of uniBreda (Belgium) and member of the board of Guberna (Belgium).

Mr. Sickinghe was previously Chief Executive Officer and member of the Board of Telenet N.V. (Belgium) in the period 2001-2013. Prior to that, he held various management positions at Hewlett-Packard (Switzerland), NeXT Computer (France), Wolters Kluwer (the Netherlands) and was founder of Software Direct (France). Mr. Sickinghe is a Dutch citizen.

### Composition of the Supervisory Board

Name	Year of birth	Start of term	End of current term	Committees		
				Strategy & Organization Committee	Nominating & Corporate Governance Committee	Audit Committee
D.W. Sickinghe (Chairman)	1958	April 9, 2014	2018	X	X	X
P.A.M. van Bommel	1957	April 13, 2016*	2020		X	
C.J. García Moreno Elizondo	1957	April 10, 2013	2017		X	
D.J. Haank (Vice-Chairman)	1953	April 7, 2009 April 10, 2013*	2017	X		
P.F. Hartman	1949	April 15, 2015	2019	X	X	X
J.C.M. Sap	1963	April 15, 2015	2019		X	
C.J.G. Zuiderwijk	1962	April 9, 2014	2018	X	X	X

X Chairman  
X Member

\* Reappointment



### P.A.M. van Bommel

Mr. van Bommel is currently a member of the Board of Management and CFO of ASM International N.V. and, as part of that position, also a non-executive director of ASM PT (Hong Kong).

Furthermore, he is a member of the Supervisory Board of Neways Electronics International N.V.

Before his appointment as CFO at ASMI, Mr. van Bommel was CFO at Odensun, CFO at NXP and CFO at various divisions of Philips. Mr. van Bommel is a Dutch citizen.



### P.F. Hartman

Since 2013, Mr. Hartman was vice-chair of the Supervisory Board of Air France/KLM Group.

Before that, he spent 40 years working for KLM, the last seven of those as CEO. He is the chairman of the Supervisory Board of Fokker Technologies Group and a member of the Supervisory Board of Constellium B.V. and of Texel Airport N.V. Mr. Hartman is a Dutch citizen.



### C.J. García Moreno Elizondo

Mr. García Moreno Elizondo is currently CFO of América Móvil. He holds several supervisory and advisory positions, including those of member of the Boards of Grupo Financiero Inbursa and Nacional Financiera.

Prior to joining América Móvil, Mr. García Moreno Elizondo held positions at among others the Mexican Ministry of Finance as the Director General of Public Credit and at the Swiss Bank Corporation Warburg as executive director and managing director. Mr. García Moreno Elizondo is a Mexican citizen.



### J.C.M. Sap

Ms. Sap occupies several supervisory and other functions, including chairing the Supervisory Boards of the GGZ affiliate Arkin, the Netherlands Public Health Federation and Fairfood International. Ms. Sap is also a member of the Supervisory Board of KPMG N.V.

In addition, she is a partner at Camunico, a consultancy firm in the field of sustainable management. Between 2008 and 2012, Ms. Sap represented the Dutch Green Party, GroenLinks, in the lower house of the Dutch parliament, the last two years of which she was party leader. Before that she worked as an economist in the fields of science, policy and business. She was, among other things, head of the Incomes Policy department at the Ministry of Social Affairs and Employment. Ms. Sap is a Dutch citizen.



### D.J. Haank

Mr. Haank is currently CEO of SpringerNature. He is a member of the Supervisory Council of the Dutch broadcast association AvroTros.

Before his appointment at Springer, Mr. Haank was the CEO of Elsevier Science and Executive Board Member of Reed Elsevier PLC. Mr. Haank is a Dutch citizen.



### C.J.G. Zuiderwijk

Mrs. Zuiderwijk chairs the Board of Management of the Chamber of Commerce. She is currently a member of the Supervisory Board of APG and member of the Board of PubliQ.

In the years 1993 to 2003, Mrs. Zuiderwijk worked for PinkRoccade in various management functions. Thereafter, Mrs. Zuiderwijk chaired the board of the Hilversum hospital and, following the merger with the Gooi Noord hospital, the Board of the Tergooi hospitals. Mrs. Zuiderwijk was also a member of the Innovation Platform of the Dutch government (from April 2007 to May 2010) and a member of the Care Innovation Platform of the Dutch Ministry of Health (from April 2008 to May 2010). Mrs. Zuiderwijk is a Dutch citizen.

> Composition of the Boards

## Board of Management

Currently, the Board of Management consists of four members. All members of the Board of Management comply with clause 2:132a of the Dutch Civil Code, which limits the number of positions in a supervisory or management board that a director may hold.

### Composition of the Board of Management

Name	Position	Year of birth	Start of term	End of current term
E. Blok	Chairman of the Board of Management and Chief Executive Officer	1957	June 2006/2010/2014*	2018
J.C. de Jager	Board member and Chief Financial Officer	1969	September 2014	2018
F.H.M. van der Post	Board member and Chief Commercial Officer	1961	March 2015	2019
J.F.E. Farwerck	Board member and Chief Operating Officer	1965	April 2013	2017

\* Reappointment



**E. Blok**

Mr. Blok is the Chairman of the Board of Management and Chief Executive Officer.



**F.H.M. van der Post**

Mr. van der Post is member of the Board of Management and Chief Commercial Officer.

Mr. Blok was appointed as a member of the Board of Management on June 1, 2006, and was responsible for KPN's Fixed division until January 1, 2007. Until February 1, 2010, he was Managing Director of the Business, Getronics and Wholesale & Operations segments (including iBasis). As of February 1, 2010, Mr. Blok assumed responsibility for KPN's international operations, comprising Mobile International and iBasis, KPN's wholesale international voice traffic carrier. He assumed the additional role of Chief Operating Officer in October 2010. Per April 2011, he was appointed Chief Executive Officer.

Mr. Blok joined KPN in 1983 and has had various management positions, including as director of KPN's Carrier Services, Corporate Networks and Fixed Net Operator, and he was responsible for Corporate Strategy & Innovation. More recently, he was Chief Operating Officer of KPN's former Fixed division. He is co-chairman of the National Cyber Security Council. Mr. Blok has been nominated for appointment as member of the Supervisory Board of PostNL N.V.

He began his career in the hospitality sector in 1985. His positions included that of general manager at the American and Amstel Hotels in Amsterdam for InterContinental Hotels where he worked in variety of international assignments. In 2005, he joined the Jumeirah Group in Dubai, a chain of luxury hotels in the Middle East and Asia. In 2008, he was appointed Chief Operating Officer for the group. In 2011, he switched from the hospitality to the aviation industry, becoming executive director and board member of British Airways, where he was responsible for brands & marketing, products and the customer experience, including cabin crew and the London Gatwick BA unit.



**J.C. de Jager**

Mr. de Jager is member of the Board of Management and Chief Financial Officer.



**J.F.E. Farwerck**

Mr. Farwerck is a member of the Board of Management and Chief Operating Officer.

In the period from 2007 to 2012, Mr. de Jager was a member of the Dutch Cabinet, first as State Secretary for Finance (from 2007 to 2010), thereafter as Minister of Finance (from 2010 to 2012). As Minister of Finance, Mr. de Jager was responsible for, among others, the budget, general financial and economic policy, supervision of financial markets and cooperation with international financial institutions. As State Secretary for Finance, Mr. de Jager was responsible for many change processes, among others within the Dutch Tax Administration. In the period 1992 to 2007, Mr. de Jager founded and was Managing Partner at ISM eCompany, an eBusiness solutions company, for which he acted as special advisor since his resignation from the Dutch Cabinet until his employment on the board of KPN.

Mr. Farwerck started working at KPN in 1994 and held senior management positions in various divisions. He was responsible for all KPN's activities in the Netherlands as Managing Director Netherlands since February 2012, and in September 2014 he became responsible for the operating activities of KPN as Chief Operating Officer. Mr. Farwerck is a member of the executive committee of VNO-NCW and a member of the Board of Nederland-ICT. He is Chairman of the Board of the KPN Group company iBasis.

## &gt; Composition of the Boards

**Insider transactions**

KPN employees that have access to inside information through the exercise of their employment, profession or duties, including all members of the Board of Management and Supervisory Board, are subject to the Code of Conduct 'Inside Information'. This Code of Conduct contains rules for possession of and

transactions in KPN securities by such employees. Members of the Board of Management and Supervisory Board are furthermore subject to reporting obligations to the AFM.

The following table provides an overview of transactions in 2016 by members of KPN's Board of Management and Supervisory Board.

Date	Name	Transaction	Price per share
January 22	C.J. García Moreno Elizondo	Sold options for 40,810.50 KPN shares.	EUR 4.86
February 4	E. Blok	Bought 87,000 ordinary KPN shares.	EUR 3.46
February 4	J.F.E. Farwerck	Bought 25,000 ordinary KPN shares.	EUR 3.48
February 4	J.C. de Jager	Bought 26,000 ordinary KPN shares.	EUR 3.47
February 4	F.H.M. van der Post	Bought 30,000 ordinary KPN shares.	EUR 3.46
February 4	C.J. García Moreno Elizondo	Sold 36,950 ordinary KPN shares.	EUR 3.41
February 12	C.J. García Moreno Elizondo	Sold 80,750 ordinary KPN shares.	EUR 3.25
March 1	F.H.M. van der Post	Vesting of 48,691 conditional KPN shares (1/4 of the conditional KPN shares awarded on March 1, 2015 as compensation payment) into 30,967 ordinary KPN shares (after sale of part of the shares to finance the income tax).	EUR -
April 12	E. Blok	Cancellation of 156,693 conditional KPN shares due to non-fulfilment of performance criteria.	EUR -
April 12	J.F.E. Farwerck	Cancellation of 108,860 conditional KPN shares due to non-fulfilment of performance criteria.	EUR -
April 14	E. Blok	Award of 331,331 conditional KPN shares.	EUR -
April 14	J.F.E. Farwerck	Award of 149,424 conditional KPN shares.	EUR -
April 14	J.C. de Jager	Award of 162,417 conditional KPN shares.	EUR -
April 14	F.H.M. van der Post	Award of 181,907 conditional KPN shares.	EUR -
June 24	E. Blok	Bought 20,000 ordinary KPN shares.	EUR 2.90
June 30	E. Blok	Award of 102,990 conditional KPN shares as adjustment of the LTI 2014, 2015 and 2016 plans to compensate for decrease of the economic value of awards due to the capital repayment to KPN shareholders.	EUR -
June 30	J.F.E. Farwerck	Award of 46,447 conditional KPN shares as adjustment of the LTI 2014, 2015 and 2016 plans to compensate for decrease of the economic value of awards due to the capital repayment to KPN shareholders.	EUR -
June 30	J.C. de Jager	Award of 50,486 conditional KPN shares as adjustment of the LTI 2014, 2015 and 2016 plans to compensate for decrease of the economic value of awards due to the capital repayment to KPN shareholders.	EUR -
June 30	F.H.M. van der Post	Award of 46,916 conditional KPN shares as adjustment of the LTI 2015 and 2016 plans to compensate for decrease of the economic value of awards due to the capital repayment to KPN shareholders.	EUR -
July 27	E. Blok	Bought 9,190 ordinary KPN shares.	EUR 3.02
July 29	F.H.M. van der Post	Bought 15,000 ordinary KPN shares.	EUR 2.89

**Stock ownership Board of Management<sup>1</sup>**

Number of ordinary shares	December 31, 2016	December 31, 2015
E. Blok	750,907	634,717
J.C. de Jager	232,410	206,410
F.H.M. van der Post	126,967	51,000
J.F.E. Farwerck	116,071	91,071

<sup>1</sup> Shares held by current members of the Board of Management (including vested shares in lock-up period). Share ownership relates to ordinary shares. In 2011, a share ownership recommendation was introduced whereby the members of the Board of Management are encouraged to acquire company shares equal to one times the annual fixed compensation for members of the Board of Management (excluding CEO) and two times the annual fixed compensation for the CEO (read more in Note 5). Retained vested shares as part of the LTI will be included in the share ownership recommendation.

**Stock ownership Supervisory Board**

Number of ordinary shares	December 31, 2016	December 31, 2015
D.W. Sickinghe	380,000	380,000
P.A.M. van Bommel	114,000	114,000
C.J. García Moreno Elizondo	80,820	198,520
D.J. Haank	24,351	24,351

> Report by the Supervisory Board

# Supervisory Board Report for KPN Integrated Annual Report 2016

Over the last years, KPN put long-term growth in the interests of its customers, shareholders and employees, at the core of its strategy. Key elements of this vision have been continued investments in future-proof infrastructure, simplification of its systems and processes and focus on Net Promoter Score as a key performance indicator. In addition, through Corporate Social Responsibility themes and the engagement of its employees, KPN works towards value creation in the longer term while keeping a solid eye on short-term returns.

The revised Dutch Corporate Governance Code, expected to be applicable as of financial year 2017, positions such 'long-term value creation' at the heart of every listed company, and therewith makes it also formally a central reference for the supervision by the Supervisory Board.

## Business results

2016 showed generally solid business results, with continued increase of the Net Promoter Score in all main segments. In the Consumer segment, over one million fixed-mobile households trust us for both their fixed and mobile service needs. This was an important milestone. The transformation of the Business segment starts showing results, although this remains a challenging environment and much remains to be done here. The new areas of business that the company pursues, such as cloud & hosting and the Internet of Things, have good prospects for future growth.

## Strategy & M&A

The Supervisory Board discussed and reviewed KPN's strategic plan with the Board of Management, and supports the move that was made early in the year from the 'Strengthen, Simplify & Grow' strategy to the 'Simplify, Grow & Innovate' strategy, emphasizing a next, gradually executed phase in the company's transformation.

The Supervisory Board, in full or through its Committees, aimed to review and discuss key aspects of the strategy in detail, such as the progress in Business and at the Customer Contact Centers, the status of IT Security, and the company's content strategy. In its review of the business, it paid specific attention to the returns made on individual parts of the company's portfolio.

It also reviewed relevant proposals for potential M&A transactions and was periodically updated on the activities of KPN Ventures.

## Technological progress

KPN's long-term basis for success is our ability to stay abreast of the constantly changing technological environment in our sector. The company must carefully weigh the payback of its investments against the backdrop of increasing technological rate of change. The Board spent ample time discussing future technologies, including spectrum and 4G/5G developments, IoT, cloud as well as fixed and mobile network upgrades. At the same time, it followed the simplification program and the digitization efforts with great interest, also looking into such topics as Software Defined Networks and Network Virtualization, which could support a next wave of simplification. The Supervisory Board engaged with both the Board of Management and members of staff to understand and discuss the impact of such developments, and put special emphasis on the company's investment program.

## Corporate Social Responsibility

CSR has become pervasive to the entire company. The Supervisory Board paid special attention to the integration of corporate social responsibility in KPN's business strategy. KPN pays substantial attention to its own impact on sustainability, e.g. by reducing own energy consumption thus making a strong contribution to society at large. KPN makes healthcare more efficient, reduces traffic by facilitating the New Way of Living and Working and, last but not least, it connects ill children with their classmates through the 'KlasseContact' initiative of the KPN Mooiste Contact Fonds.

**"2016 showed generally solid business results, with the continued increase of the Net Promoter Score in all main segments"**

The Supervisory Board supports the vision that ICT can accelerate the transition to a circular economy and the mitigation of negative climate impacts. We support and encourage the development of long term goals that are in line with the international ambitions as formulated in the Paris Agreement and in the Sustainable Development Goals.

CSR as part of our business strategy was also a key topic of a strategy day for the Supervisory Board with the Board of Management in the autumn of 2016, where both external and internal experts contributed to a highly fruitful discussion, which should help advance KPN's achievements in this field even further.

## People & Culture

Our company is a reflection of the values and norms of the people we employ. Employment at our company will continue to decline, as it has done over the past decades. Simplification, digitization and competitive pressure will continue to lead to a lower number of jobs. In such circumstances, a continuous focus on the wellbeing of our people, and social relations in general, is critical. The Supervisory Board aims to monitor such relations carefully, both through interaction with the Board of Management and the HR function, as well as with the Central Works Council.

The introduction of the 'Greenprint', which formulates our 'why', was an important milestone in the definition and growth of the desired company culture. The related launch of the new Company Code was an as important step to underpin the importance of integrity in whatever we do.

## Shareholders

For shareholders, 2016 showed increasing shareholder returns, including a EUR 28ct per share capital repayment related to the cash proceeds from the sale of BASE Company in February 2016 and the sale of 150 million shares in Telefónica Deutschland in November 2015, final 2015 dividend and interim 2016 dividend payments, as well as a pass-on of the dividend received on our shareholding in Telefónica Deutschland. KPN's share price outperformed the relevant European Telecoms indices, but underperformed the broader market indices, such as the AEX Index. The Supervisory Board has had a number of contacts with shareholders in order to understand their concerns, listen to their inputs and benefit from their expertise as they often have a broad view on our industry.

## The Boards

As further explained under the header 'Nominating & Corporate Governance Committee', the Board also spent ample

time on its own composition as well as the composition of the Board of Management this year, with the upcoming renewal of the appointment of Mr. Farwerck as main event. Given his performance in the past period and his preparedness for the challenges ahead, the Supervisory Board concluded to a continuation of his tenure, subject to observations made during the 2017 shareholders' meeting.

The Supervisory Board devoted fair time to its own permanent education, e.g. in the fields of integrity and compliance, and Corporate Social Responsibility, and has established an agenda for structural education. The Supervisory Board evaluated its own performance in its meeting in January 2017, and concluded that it was generally satisfied with its own performance. As to the composition of its own team, the Supervisory Board concluded that it could strengthen knowledge in the digital and communication industry, and therefore decided to initiate a search for an eighth member. Further points of improvement included the information flows with the Board of Management, agenda setting, and certain improvements to the structure of the meetings.

## Remuneration

Given the importance of balanced remuneration, the Supervisory Board, whether in full or in the Remuneration Committee, thoroughly assessed this topic. Also based on external advice, the Board concluded that the current remuneration policy fits the needs of the company, and is on par with, or ahead of, market practice, for example with regard to the use of non-financial parameters for variable pay. The Supervisory Board ensures that the remuneration policy has strong alignment with the company's annual performance goals and long-term value creation strategy, based on addressing the needs and challenges of society.

## Meetings

The Supervisory Board met with the Board of Management on eight, regularly scheduled, occasions in 2016. The attendance at the Supervisory Board meetings was 86%. Due to circumstances relating to the unanticipated events in his agenda related to his primary function and in addition to his overseas domicile, Mr. Garcia Moreno was unable to attend approximately half the meetings held. In such cases, however, he has participated in the Audit Committee meetings preceding the meeting of the full Board, and/or provided his observations and opinion to the documents and proposals prior to the meeting. All members had adequate time available to prepare themselves and give the required attention to the matters at hand. In the event members could not join a meeting, the Chairman discussed the matters at hand before and after the meeting, in order to obtain the input and views of all Supervisory Board members. Most meetings commenced and/or ended with closed meetings where only Supervisory Board members, and at times the CEO, were present.

## > Report by the Supervisory Board

### Independence

Throughout the year, six members of the Supervisory Board were independent from the company within the meaning of the Dutch Corporate Governance Code. Mr. García Moreno Elizondo, who was appointed upon the nomination of América Móvil, is not considered independent within the meaning of the Dutch Corporate Governance Code. At all times, the composition of the Supervisory Board was such that the members were able to act critically and independently of one another and of the Board of Management.

See Note 31 of the Consolidated Financial Statements for information on related party transactions.

	Audit Committee	Remuneration Committee	Nominating & Corporate Governance Committee	Strategy & Organization Committee
Chairman	P.A.M. van Bommel	P.F. Hartman	D.W. Sickinghe	D.J. Haank
Members	C.J. García Moreno	D.W. Sickinghe	P.F. Hartman	P.F. Hartman
	J.C.M. Sap	C.J.G. Zuiderwijk	C.J.G. Zuiderwijk	C.J.G. Zuiderwijk
				D.W. Sickinghe
Attendance (# meetings)	88% (5)	93% (5)	100% (4)	85% (5)

### Audit Committee

The Audit Committee had five regularly scheduled meetings, all of which were also attended by the CFO, the external auditor Ernst & Young Accountants LLP (EY) and partially by the Internal Auditor and the EVP Corporate Control. The Committee also met separately with EY, which was appointed by the General Meeting of Shareholders as KPN's independent external auditor.

The Audit Committee reviewed and discussed in particular all financially relevant matters that were presented to the Supervisory Board, most notably the Integrated Annual Report, the quarterly results, the financial and risk-related aspects of the strategic plan and the outlook for 2017. It had a specific focus on the effectiveness and outcome of the internal control framework and the risk management systems of the company, for which it received and reviewed reports by the Internal Auditor, the Group Risk & Compliance Officer and the Disclosure Committee. Each quarter, the Audit Committee also discussed in detail the matters included in the Board Report of the external auditor EY.

The Audit Committee also kept close oversight on KPN's financing policy and profile and the related dividend proposals

### Committee reporting

The Supervisory Board has established four Committees, as further explained in the chapter 'Corporate Governance': The Audit Committee, the Remuneration Committee, the Nominating and Corporate Governance Committee and the Strategy and Organization Committee. The main considerations and conclusions of each Committee were shared with the full Supervisory Board.

The Committee worked with the Board of Management to evaluate aspects of the company's current and potential strategy, where relevant in preparation of decisions in the full Supervisory Board. The topics discussed were chosen by the Committee based on suggestions by management or the Committee itself, and included such topics as value steering, cloud & hosting and spectrum management. Extensive attention was paid to strategic considerations in the field of CTV content, including the negotiations with Fox Sports and KPN's positioning on exclusive content. The Committee also paid specific attention to new business opportunities and the progress of KPN Ventures, both to anticipate disruptive trends in our industry and drive new sources of revenue. It furthermore on a regular basis reviewed relevant M&A developments. Particular attention was paid to KPN's policies on Corporate Social Responsibility, and the anchoring thereof in the strategy. The Committee prepared the Strategy off-site for the Supervisory Board in the autumn, where CSR was a key topic of discussion.

By discussing such topics, the Committee enabled the full Board to gain an even better view of the impact of choices made on the company, hence improving the Supervisory Board's oversight, while having in-depth discussions with relevant members of staff.

### Remuneration Committee

The Remuneration Committee met on five occasions during 2016. The CEO attended parts of the Committee meetings. The Committee assisted the Supervisory Board in establishing and reviewing KPN's pay policy to ensure that members of the Board of Management are compensated consistently with that policy.

The Committee defined the level of pay-out for individual members of the Board of Management as part of the STI plan 2015 and LTI grant 2013, and determined the financial and non-financial targets and performance criteria for the STI plan 2016 and LTI grant 2016. The Committee developed a more detailed approach to evaluating individual performance of members of the Board of Management, as input for the final determination of the STI pay-out levels for 2016 and onwards.

The Committee furthermore reviewed the remuneration policy and, confirmed by the views of external experts, concluded that the remuneration policy was in line with market practice and good governance practices as well as relevant regulations.

The Committee evaluated the individual base pay levels for each of the members of the Board of Management against market and peer levels, the requirements of the position, internal equity and the experience of the individual concerned, and recommended adjustment for certain individual members, as set out in the Remuneration Report.

When engaging external experts, the Committee ensured that the expert was independent from the consultant used

by the company and acted solely on the instructions of the Committee on a basis in which conflicts of interest were avoided.

Further details on the activities of the Remuneration Committee are provided in the 'Remuneration Report' section of this report.

### Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee met on four occasions in 2016. It reviewed both the composition of the Board of Management and the Supervisory Board.

As to the Board of Management, the Committee most notably evaluated the potential reappointment of Mr. Farwerck, who will reach the end of his first term of appointment in April 2017. Based on an evaluation of his performance in his first term, and given the challenges in the operations domain in the years ahead, the Committee concluded it was in the best interest of the company to recommend the reappointment of Mr. Farwerck for a further four-year term. The Central Works Council supports the reappointment. The committee also took note of the 360-feedback received for each of the members of the Board of Management.

*"The Committee enabled the full Board to gain an even better view of the impact of choices made on the company, hence improving the Supervisory Board's oversight, while having in depth discussions with relevant members of staff."*

## > Report by the Supervisory Board

The Committee furthermore reviewed the composition of the Supervisory Board itself, as both Mr. Haank en Mr. García Moreno are to step down at the 2017 AGM. Based on a review of the required skills and experience (as set out in the skills matrix), it determined the desired profiles for filling these positions. Under existing arrangements, América Móvil was entitled to nominate one candidate for appointment to the Supervisory Board, and nominated Mr. García Moreno for reappointment. The Committee fully supports this nomination, given Mr. García Moreno's extensive expertise in the financial markets, in combination with his knowledge of, and expertise in,

the telecommunications sector. As to the position of Mr. Haank, the Committee noted in particular the desire for general experience in managing large companies, also in a digital transformation phase. This profile, in combination with desired continuity in the Board, led the Committee to the conclusion that it is in the best interest of the Supervisory Board to propose the reappointment of Mr. Haank for a third and final term. Finally, the Committee concluded that the Supervisory Board could benefit from further experience and knowledge in the digital and communication industry. It therefore initiated a search for a potential eighth member of its Board.

The Committee followed the review of the Dutch Corporate Governance Code with great interest, and will support the Supervisory Board and the Board of Management in the implementation process thereof during 2017.

The Committee remains committed to ensuring that the Supervisory Board and Board of Management will consist of at least 30% female and at least 30% male members, thereby serving the interest of a balanced composition of the Boards. When searching for candidates for available Board seats, special attention was therefore given to identify female candidates to achieve a more even distribution between male and female members. At the same time, KPN aims to select the best person for the job and – as suitable female candidates were not deemed available – the 30% target for female representatives has not yet been achieved in either Board. For upcoming vacancies, KPN aims to make further progress in striving for at least 30% female representation. For further information on KPN's diversity policy, see 'Diversity and Inclusion' in the 'Sustainable employment' section of this report.

### Final remarks

We exist by virtue of our customers. Our employees make us who we are. Our business partners enable us to reach our goals together. Our shareholders and bondholders trust us with their financial resources to allow us to finance our business. We aim to be an engaged member of the Dutch society at large.

The Supervisory Board is grateful to all stakeholders for their contribution to our company.

Duco W. Sickinghe, Chairman

Peter A.M. van Bommel  
Carlos J. Garcia Moreno Elizondo  
Derk J. Haank  
Peter F. Hartman  
Jolande C.M. Sap  
Claudia J.G. Zuiderwijk

Skills / Characteristics	D.W. Sickinghe	D.J. Haank	P.A.M. van Bommel	C.J. García Moreno	C.J.G. Zuiderwijk	P.F. Hartman	J.C.M. Sap
Business leadership	x	x	x	x	x	x	x
Industry knowledge (Telco)	x			x			
Industry knowledge (IT)	x				x		
Commercial	x	x			x	x	
Operational	x				x	x	
Employment / social relations					x	x	x
Society / government relations					x	x	x
Corporate Social Responsibility							x
Financial markets	x	x	x	x			
Finance, Audit & Risk	x	x	x	x			x
Financial experts (Dutch CGC)			x	x			
International experience	x	x	x	x		x	

### Executive / non-executive

(Full time) Executive position at other company	x	x	x	x	x
Mainly non-executive role				x	x

### Diversity

Male	x	x	x	x	x
Female				x	x

### Financial Statements

The Financial Statements for the year ended December 31, 2016, were prepared by the Board of Management and approved by the Supervisory Board. The Report of the Independent Auditor, Ernst & Young Accountants LLP (EY), is included in the Combined Independent Auditor's Report in the 'Other Information' section of the Financial Statements.

The Supervisory Board recommends that the AGM adopts these Financial Statements.



# Remuneration Report

## Introduction

We are committed to preserving your confidence and trust by presenting an accountable and transparent implementation of our pay policy.

The Remuneration Committee's (the Committee) tasks are laid down in the terms of reference of the Committee. The Committee assists the Supervisory Board with establishing and reviewing the company's pay policy to ensure that members of the Board of Management are compensated in consistence with that policy.

The Chairman and members of the Remuneration Committee are appointed by the Supervisory Board. The Committee currently consists of Mr. Hartman (Chairman), Mr. Sickinghe and Mrs. Zuiderwijk.

We intend to foster an action- and innovation-oriented culture aimed at delivering results in line with KPN's strategic direction. Being aware of the public debate surrounding the topic of executive remuneration, the Committee strives to balance all stakeholder interests. Our pay programs therefore emphasize variable pay and long-term value creation. This ensures a strong alignment with the company's annual performance goals and long-term value creation strategy based on addressing the needs and challenges of society.

## KPN's pay policy; a balanced approach between market competitive standards and long term value creation

The objectives and principles of KPN's pay policy are based on a balanced approach between market competitive standards, the ratio between fixed- and variable pay (with a focus on long term value creation) and the economic- and social contribution of the company linked to the non-financial parameters of the variable pay. Further details are described in the table below.

### Objectives:

#### Market competitive standards:

Attracting, motivating and retaining the necessary leadership talent

### Principles:

Paying at market-median level

Complying with best practice in corporate governance

Differentiating by experience and responsibility, while promoting internal fairness

Supporting a work environment where inspiring leadership is the norm

Enhancing transparency and clarity

#### Ratio base/variable pay (focus on long term value creation):

Driving performance that generates long-term sustainable and profitable growth

Paying for performance

Encouraging customer satisfaction and loyalty, agility and innovation

Rewarding a customer centric approach

#### Economic and social contribution:

Creating economic value by addressing the needs and challenges of society

Balancing all stakeholder interests

## A. Executive pay at a glance

The pay mix for executives consists of the following four elements:

Component	Form	Fixed/variable	Drivers
Base salary	Cash	Fixed	Experience and responsibility
Benefits (primarily pensions)	Funded by cash contributions	Fixed	Market-competitive standards
Short-Term Incentive (STI)	Cash	Variable	Performance – assessed through annual financial and non-financial targets
Long-Term Incentive (LTI)	Conditional shares	Variable	Performance – assessed through relative TSR (peer group), Free Cash Flow, Earnings Per Share and non-financial parameters

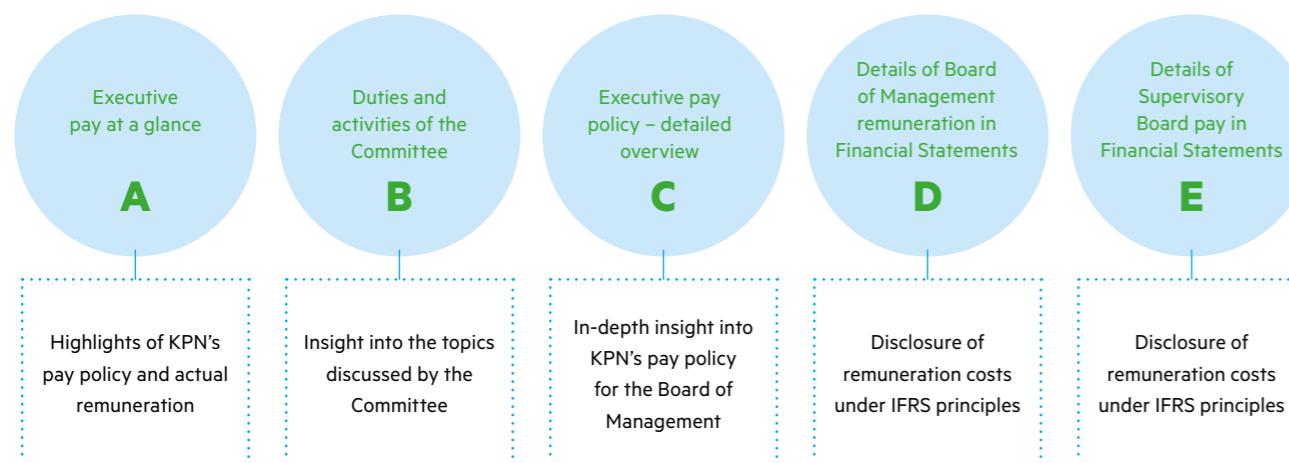
## The ratio between fixed and variable pay

The ratio between fixed and variable pay is influenced by the extent to which targets are met. The following pie charts represent the pay mix for both the CEO and the other Board members in case of an on-target performance. The different pay mix for the CEO (when compared to the other Executives) reflects the outcome of the benchmark reference.

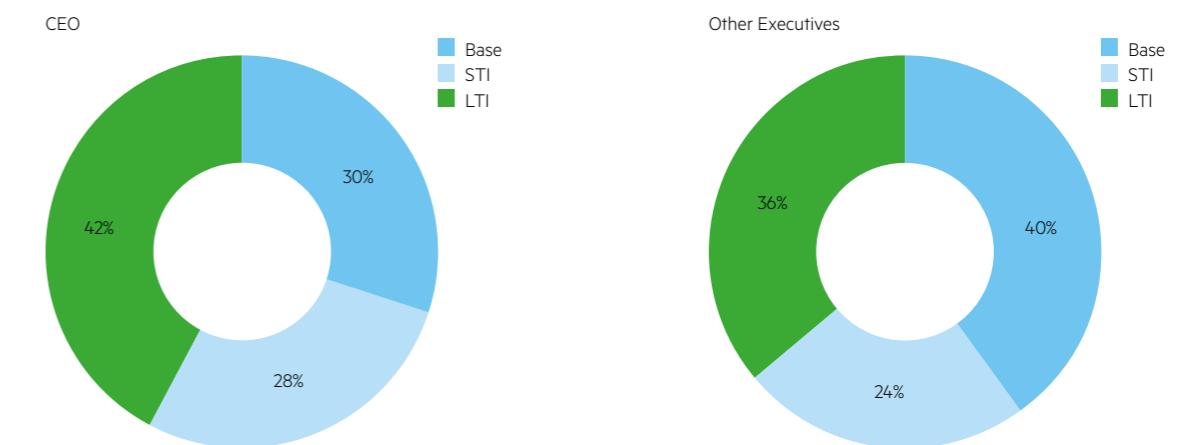
## The level of remuneration

KPN's pay levels are benchmarked against other companies in order to ensure that KPN's total level of compensation based on the pay mix is in line with KPN's pay policy and objectives, as described above. In order to benchmark pay levels, KPN uses an employment peer group of companies against which KPN competes for talent. The peer employment group consists of AEX-listed and European sector-specific companies. The advice of Hay Group, an independent external consultant, is used by the Committee to ensure an objective benchmark for KPN's remuneration policy and levels of pay.

## Overview



## Compensation policy



## › Remuneration Report

### Actual remuneration Board of Management

In thousands of EUR. Refer to the 'Personnel Expenses' section in the Consolidated Financial Statements for full disclosure of remuneration cost under IFRS principles.

Name	Year	Base	STI	Actual vested LTI <sup>2</sup>	Pension cost and social security	Total
Eelco Blok	2016	850	531	971 <sup>3</sup>	264	2,616
	2015	850	1,049	–	267	2,166
Jan Kees de Jager	2016	625	238	476 <sup>3</sup>	122	1,461
	2015	625	514	–	131	1,270
Frank van der Post	2016	700	266	318	171	1,455
	2015 <sup>1</sup>	583	480	149	154	1,366
Joost Farwerck	2016	575	239	438 <sup>3</sup>	139	1,391
	2015	575	473	70	142	1,260

1 Remuneration of Mr. Van der Post since appointment as Board member in March 2015.

2 Final TSR measurement for the 2013 share grant was conducted in 2016, which did not lead to vesting of shares in April 2016. In March 2016, part of the long-term compensation payment of Mr. Van der Post vested.

3 Final measurement of the 2014 share grant was conducted in 2017, which leads to 68.75% vesting of the shares in April 2017. The amounts give an indication of the underlying value of the shares that will vest in April 2017 based on the closing share price of KPN at 16 February, 2017.

### Incentives aligned with strategy and sustainable performance growth

The focus of KPN's strategy is on customer experience, flexible and simplified integrated network and operating models, optimized financial framework and dividend growth, acceleration of up- and cross-sell in bundles, growth in TV and IT services and finalization of Business Transformation. The goals and objectives of this strategy are reflected in the short-to medium-term targets and long-term targets, which are used to compensate senior management for their performance.

The performance measures also strengthen sustainable performance growth by focussing on both financial and non-financial performance indicators.

### Level of variable compensation aligned with the company's risk profile

KPN aligns incentives with its long-term strategy, but it also needs to focus on short-term success in order to achieve further growth. The company's risk profile is embedded in the short-term and long-term incentive structure which measurement is assured by KPN's standards of internal control over financial reporting.

## B. Duties and activities of the Committee

### Duties of the Committee

The Committee assists the Supervisory Board with:

- › Establishing and reviewing the company's pay policy (based amongst other things, on national and international benchmark standards);
- › Ensuring that members of the Board of Management are compensated consistently with that policy; and
- › Reviewing and, if appropriate, recommending changes to the pay of the Supervisory Board.

Members of the Supervisory Board regularly liaise with senior management below Board level.

In performing its duties, the Committee is assisted by an external remuneration consultancy firm (i.e. Hay Group). The Committee is fully independent in the execution of its assigned responsibilities and ensures that the external remuneration consultancy firm acts on the instructions of the Committee and on a basis by which conflicts of interest are avoided.

### Activities during 2016

The Committee met 5 times in 2016, with an attendance rate of 93%. Consistent with its charter, the Committee has been involved in several aspects, such as:

- › Defining the level of pay-out as part of the STI plan 2015 and LTI grant 2013;
- › Issuing the STI plan 2016 and LTI grant 2016 in line with the remuneration policy;
- › Adjusting the LTI grants as a result of the capital repayment;
- › Discussing the projected outcome of the STI plan 2016 and LTI grant 2014;
- › Monitoring the current remuneration policy; and
- › Preparing the Remuneration Report 2016 to be included in KPN's Integrated Annual Report.

## C. Executive pay policy – detailed overview

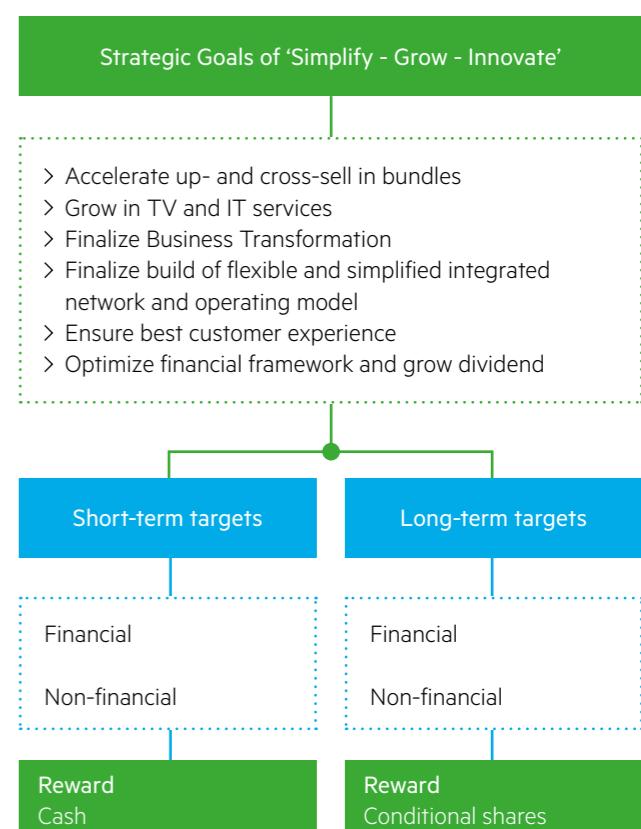
### Objectives of KPN's pay policy

KPN is dedicated to fostering a strong action and innovation oriented culture aimed at delivering results. KPN's pay programs therefore emphasize variable pay and long-term value creation.

### Sustainable performance growth

The performance measures of the short and long-term incentive plans are aligned with sustainable performance growth. The focus is on both financial and non-financial targets in order to support creation of economic value by addressing the needs and challenges of society. Examples of such non-financial performance measures are: customer satisfaction, loyalty and customer base, reputation targets and energy reduction targets.

The alignment of KPN's pay policy with its strategic goals is reflected in the overview below.



### Principles of KPN's pay policy

KPN's pay policy is guided by the following main principles:

- 1) Paying at market-median level: this is achieved through benchmarking against an employment market peer group consisting of companies with which KPN generally competes for talent;
- 2) Pay-for-performance: target pay aims at 30–40% of pay in base salary, and 60–70% in variable pay in order to maintain a strong alignment with the company's annual financial performance goals and long-term value creation strategy;
- 3) Differentiating by experience and responsibility: this is achieved through alignment of the pay with the responsibilities, relevant experience, required competence and performance of individual jobholders. Consequently, there can be substantial differentials in pay levels, despite employees having similar job titles; and
- 4) Balancing all stakeholder interests based on a transparent pay policy.

These principles apply to all levels of senior management. The company's pay policy is compliant with the relevant legal requirements and the principles of the Dutch Corporate Governance Code.

## > Remuneration Report

### Composition of employment market peer group and market assessment

To ensure the overall competitiveness of KPN's pay levels, these levels are benchmarked against an employment market peer group. The Committee uses one peer group consisting of AEX-listed companies and European sector-specific companies. The table below shows the current composition of KPN's employment peer group:

#### Employment peer group

AkzoNobel NV	BT Group Plc
DSM NV	Cap Gemini NV
Heineken NV	Portugal Telecom SA
Randstad Holding NV	Proximus SA
Reed Elsevier NV/Plc	Swisscom AG
Royal Ahold NV	Vodafone Group Plc
Royal Philips Electronics NV	Unilever NV/Plc

The Committee regularly reviews the peer group to ensure that its composition is still appropriate. The composition of the peer group might be adjusted as a result of mergers or other corporate activities. The relative size of KPN is taken into account when determining whether KPN's pay levels are in line with the market-median levels.

### Base salary

The Committee determines appropriate base salary levels based on KPN's relative positioning in the peer group. In line with KPN's pay-for-performance principle, base salary is targeted at the lower end of the market-competitive range. Each year, the Supervisory Board considers whether circumstances justify an adjustment in base salary within the market-competitive target range for individual members of the Board of Management. The annual base salary for the COO will be adjusted from EUR 575,000 to EUR 625,000 and for the CFO from 625,000 to EUR 650,000 with an effective date April 13, 2017 which is the first day after the AGM. The annual base salary of both board members has not been adjusted since their initial appointments in 2013 (COO) and 2014 (CFO).

### Short-Term Incentives (STI): 70% financial and 30% non-financial targets

#### General

At the beginning of each year, the Supervisory Board sets financial and non-financial target ranges for the Board of Management. These ranges are based on the company's

business plan. At the end of the year, the Supervisory Board reviews the company's performance against the target ranges. Members of the Board of Management are eligible for an annual cash incentive only if company performance is at or above the predetermined ranges. A "circuit breaker" is applicable as a minimum requirement for pay out of the STI non financial parameters.

#### Objectives: focus on both financial and non-financial targets

The objective of this STI scheme is to ensure that the Board of Management is well incentivized to achieve company performance targets in the shorter term. Specific details on targets cannot be disclosed for performance measures, as this would require providing commercially sensitive information.

#### Performance incentive zone

The target ranges for financial and operational performance comprise:

- > A 'threshold' below which no incentive is paid;
- > An 'on-target' performance level at which an 'on-target' incentive is paid; and
- > A 'maximum' at which the maximum incentive is paid.

The STI is designed to strike a balance between the company's risk profile and the incentive to achieve ambitious targets. The pay-out methodology is based on a separate pay-out approach for each of the financial and non-financial targets. The Supervisory Board's ability to apply a discretionary factor ranges between 0.7 (reducing the incentive by 30%) and 1.3 (increasing the incentive by 30%). With this discretionary factor, the Supervisory Board is able to express the assessment of the overall individual performance of each member of the Board of Management. The Supervisory Board has agreed a set of non-financial kpi's with each individual member of the Board of Management. The performance based on these kpi's will be evaluated by the Committee annually and discussed with the individual Board members at the end of each year. The outcome of this discussion will be used by the Supervisory Board as a reference to determine the discretionary factor.

Discretion both upwards and downwards can be applied by the Supervisory Board if the outcome of the STI scheme would produce an unfair result or if the outcome would not be considered to reflect the basic objectives and principles of pay as outlined in this section.

#### Actual pay-out levels

For 2016, Free Cash Flow performed close to target. EBITDA and customer base performed between threshold and target level, while Net Promoter Score and revenue performed, on average, at the lower level of the bandwidth.

### Short-Term Incentives (STI)

Component	STI
Form of compensation	Cash
Value determination	'On-target' incentive equals 90% of base salary for the CEO and 60% of base salary for the other members of the Board of Management.
Targets	Targets typically are EBITDA, Free Cash Flow, revenue and various measures of customer satisfaction and loyalty and customer base.
Pay-out at threshold performance	25% of the 'on-target' incentive (i.e. 22.5% of base salary for the CEO and 15% of base salary for the other members of the Board of Management). Pay-out below threshold performance: 0% of the 'on-target' incentive.
Discretionary factor	A factor between 0.7, reducing the incentive by 30%, and 1.3, increasing the incentive by 30%.
Scenario maximum	Pay-out capped at 150% of the 'on-target' incentive (i.e. 135% of base salary for the CEO and 90% of base salary for the other members of the Board of Management).

### Long-Term Incentives (LTI)

Component	Long-term share-based compensation
Form of compensation	Shares
Value determination <sup>1</sup>	CEO: based on 135% of base pay. Other members of the Board of Management: based on 90% of base pay.
Drivers <sup>2</sup>	For 25% based on relative TSR versus peer group, for 25% on Free Cash Flow, for 25% on Earnings Per Share, for 12.5% on sustainability/environmental targets and for 12.5% on stakeholder/customer targets.
On-target	100% of the granted shares vest.
Scenario maximum	Position 1 in TSR peer group and maximum performance of financial and non-financial targets: 200% of the granted shares vest.

<sup>1</sup> Based on the average share price of the first trading day after the AGM. Dividend paid during the vesting period will be included in the value determination.  
<sup>2</sup> Vesting of non-financial targets will be subject to achieving a cumulative net profit during the vesting period of three years (i.e. qualifier for vesting).

### Long-Term Incentives (LTI): 75% financial and 25% non-financial targets

#### General

In addition to the base salary and the Short-Term annual cash incentive described above, a Long-Term incentive based on performance shares is used to ensure that the interests of the members of the Board of Management are aligned with those of its long-term (or prospective) shareholders and to provide an incentive for members of the Board of Management to continue their employment/service agreement relationship with the company.

The number of shares granted under this plan is based on a percentage of base pay as shown in the LTI table. The vesting

methodology is based on a separate vesting approach for each of the financial and non-financial targets.

It is considered that comparing KPN's TSR with a wider group of companies (either geographically or with other industries) is not meaningful. Variations in returns would most likely be attributed largely to macro-economic events and/or sector shifts rather than to variations in management actions. Therefore, benchmarking TSR achievements relative to other, similar companies emphasizes rewarding for specific KPN performance.

The non-financial parameters set for 2016 are based on energy reduction and a reputation dashboard. Please refer to the 'Environmental performance chapter' of this report for detailed information about the energy reduction parameters.

Vesting is, in principle, also subject to the condition that the member of the Board of Management has not resigned within three years of the date of the initial grant. The performance period of the LTI plan is set at three years. The Committee uses scenario analysis to estimate the possible outcomes of the value of the shares vesting in coming years and decides whether a correct risk incentive is set for the members of the Board of Management with respect to the overall level of pay and pay differentials within the company.

In addition to the information provided in the Remuneration Report, read more in Note 5 of the Consolidated Financial Statements for a further description and valuation of the option and share plans.

#### Performance-measuring and peer group performance

The following table provides an overview of KPN's performance peer group to determine KPN's relative shareholder return for LTI plans as of 2014.

##### Companies included in the peer group

BT Group Plc	Tele2 AB
Deutsche Telekom AG	Telekom Austria AG
Orange Belgium SA	Telia Company AB
Orange SA	Vodafone Group Plc
Proximus SA	Swisscom AG
TDC A/S	KPN NV

Position	Vesting schedule	Position	Vesting schedule
	as of 2014 grant		as of 2014 grant
Position 1	200%	Position 5	100%
Position 2	175%	Position 6	75%
Position 3	150%	Position 7 and below	No vesting
Position 4	125%		

The table above provides the vesting schedules of the TSR part in the LTI plans granted as of 2014. Vesting schedule for financial and non-financial targets other than TSR: threshold performance 25%, on-target performance 100% and maximum performance 200%. Please note that the peer group used for relative TSR reflects the relevant competitive market in which KPN competes for investor preference. As such, it is different

from the employment market peer group, which is used to determine pay levels for the CEO and members of the Board of Management. The peer group may be adjusted if an individual company no longer qualifies as a relevant peer company.

#### Performance incentive zone

In line with the design of KPN's LTI plan the target performance ranges for vesting of the LTI plan comprise a threshold below which no shares vest, an on-target performance level at which shares vest an on-target and a maximum at which the shares vest at the maximum level.

Once vested, the shares will have to be held for a minimum period of two years. An exception to this rule is made for shares that are sold to cover income tax obligations in relation to the vested shares (typically the value taxed as income equals the number of shares vested multiplied by the share price at the time of vesting). An external remuneration consultant calculates the end-of-year TSR peer group position and the number of shares vested based on this target, and makes certain that calculations are performed objectively and independently.

Discretion both upwards and downwards can be applied by the Supervisory Board if the outcome of the LTI incentive scheme would produce an unfair result or if the outcome would not be considered to reflect the basic objectives and principles of pay as outlined in this section.

The change of control clause contains immediate vesting at 100% (irrespective of the actual performance at that moment, whether higher or lower) and lifting of the blocked period normally applicable, to enable the member of the Board of Management to dispose of their shares in the situation of a change of control. The immediate vesting at 100% will be pro rata for the time passed in the plan during the vesting period of three years (i.e. 1/3 in year one, 2/3 in year two, full in year three).

#### Actual pay-out levels

	Weighting	Outcome	Vesting Percentage
TSR	25%	75%	18.75%
EPS	25%	0%	0%
FCF	25%	0%	0%
Energy	12.5%	200%	25%
Reputation	12.5%	200%	25%
<b>Total vesting</b>			<b>68.75%</b>

Final TSR measurement for the 2014 share grant was conducted as per February 15, 2017. The LTI plan did not vest over the last couple of years as the minimum performance criteria for vesting were not met. The LTI plan 2014 will vest in April 2017 at 68.75% of on-target, primarily based on both the solid relative TSR performance and the strong performance related to the energy- and reputation targets.

KPN was placed in the top of the Dow Jones Sustainability World Index (DJSI) for the fifth year in a row. This strong performance is reflected in KPN's sustainability performance during the vesting period 2014-2016 and resulted in a vesting of 200% for this part of the LTI plan 2014.

#### Claw-back clause

The Supervisory Board has the discretionary authority to recover variable pay awarded on the basis of incorrect financial or other data.

#### Benefits

##### Pensions

Members of the Board of Management are eligible for a defined contribution pension plan with a contribution based on the fiscal defined contribution table that corresponds to a retirement age of 67, an annual accrual rate of 1.875% and a pension accrual capped at EUR 101,519 base pay. Board members receive a fixed gross allowance equal to the associated pension contribution paid by the company prior to 2015 for the base pay part above EUR 101,519.

#### Additional arrangements

The additional arrangements, such as life insurance coverage, expense allowances, use of cell phones and company car provisions needed for the execution of their roles, are broadly in line with other companies of similar size and complexity, as well as with market practice.

#### Loans

Company policy does not allow loans or guarantees to be granted to members of the Board of Management.

#### Terms of employment

Members of the Board of Management have a service agreement for a definite period of time with the exception of Mr. Blok, who has an employment contract for an indefinite period of time.

All members of the Board (including the CEO) are appointed for a period of four years, which is in line with the requirements of the Dutch Corporate Governance Code.

#### Severance arrangements

Severance payments for the CEO and members of the Board of Management are aligned with the Dutch Corporate Governance Code (one-year base salary, and – exceptionally during the initial term of four years – up to two years' base salary).

#### Outlook for 2017

No adjustments in the company's remuneration policy that require AGM approval are foreseen in 2017.

The Committee will review the financial and non-financials of the long term incentive plan (LTI) to ensure that these targets will continuously be aligned with the underlying principles and objectives of the remuneration policy.

Please refer to note 5 'Personnel Expenses' of the Consolidated Statement of Profit or Loss for details on actual remuneration of the Board of Management.

## Supervisory Board pay

The Committee is responsible for reviewing and, if appropriate, recommending changes to the pay of the Supervisory Board. Any recommended changes to Supervisory Board pay must be submitted to the General Meeting of Shareholders for approval. The remuneration levels for the chairman and members of the Strategy & Organization Committee were approved by the General Meeting of Shareholders in April, 2015. Members receive an additional fee if a meeting is held in a country other than the member's country of residence. Shareholdings in the company held by Supervisory Board members serve as a long-term investment in the company and help to align their interest with those of KPN's other shareholders. No Supervisory Board member is granted shares as a form of pay. As a policy, the company does not provide loans or guarantees to its Supervisory Board members.

The table below shows the pay-out to Supervisory Board Members and fixed Committee fees on an annual basis.

Amounts in EUR	Annual fees
Chairman Supervisory Board	100,000
Vice Chairman of the Supervisory Board	70,000
Member Supervisory Board	60,000
Chairman Audit Committee	20,000
Member Audit Committee	10,000
Chairman Strategy & Organization Committee	12,500
Member Strategy & Organization Committee	7,500
Chairman Remuneration Committee	10,000
Member Remuneration Committee	5,000
Chairman Nominating & Corporate Governance Committee	10,000
Member Nominating & Corporate Governance Committee	5,000

Read more in Note 5 to the Consolidated Financial Statements (Personnel expenses) for details on actual remuneration of the Supervisory Board.

Peter F. Hartman (Chairman Remuneration Committee)

Duco W. Sickinghe  
Claudia J.G. Zuiderwijk

# Financial Statements

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## Consolidated Statement of Profit or Loss

For the year ended December 31

Amounts in millions of EUR	2016	2015
Revenues	6,801	7,006
Other income	5	2
<b>Total revenues and other income [4]</b>	<b>6,806</b>	<b>7,008</b>
Cost of goods & services	2,131	2,209
Personnel expenses [5]	1,175	1,260
Information Technology / Technical Infrastructure	517	535
Other operating expenses [6]	554	680
Depreciation, amortization and impairments [7]	1,545	1,616
<b>Total operating expenses<sup>1</sup></b>	<b>5,922</b>	<b>6,300</b>
<b>Operating profit</b>	<b>884</b>	<b>708</b>
Finance income	112	150
Finance costs	-641	-507
Other financial results	112	252
<b>Financial income and expenses [8]</b>	<b>-417</b>	<b>-105</b>
Share of the profit of associates and joint ventures [13]	-1	2
<b>Profit before income tax from continuing operations</b>	<b>466</b>	<b>605</b>
Income taxes [9]	-96	-81
<b>Profit for the year from continuing operations</b>	<b>370</b>	<b>524</b>
Profit for the year from discontinued operations [19]	430	135
<b>Profit for the year</b>	<b>800</b>	<b>659</b>
Profit attributable to non-controlling interests	7	21
Profit attributable to equity holders of the company	793	638
<b>Earnings per ordinary share after taxes attributable to equity holders of the company for the year in EUR [10]</b>		
› Basic (continuing operations)	0.07	0.11
› Diluted (continuing operations)	0.07	0.11
› Basic (discontinued operations)	0.10	0.03
› Diluted (discontinued operations)	0.10	0.03
› Basic (total, including discontinued operations)	0.17	0.14
› Diluted (total, including discontinued operations)	0.17	0.14

1 Operating expenses have been restated to align with internal, functional based, reporting. Read more in Note 3.

[.] Bracketed numbers refer to the related Notes to the Consolidated Financial Statements, which form an integral part of these Consolidated Financial Statements.

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## Consolidated Statement of Other Comprehensive Income

For the year ended December 31

Amounts in millions of EUR	2016	2015
<b>Profit for the year</b>	<b>800</b>	<b>659</b>
<b>Other comprehensive income:</b>		
Items of other comprehensive income that may not be reclassified subsequently to profit or loss:		
Remeasurement pensions and other post-employment plans:		
Gains or losses (-) arising during the period [23]	-58	45
Income tax	1	2
<b>Net other comprehensive income/ loss (-) not to be reclassified to profit or loss in subsequent periods</b>	<b>-57</b>	<b>47</b>
Items of other comprehensive income that will be reclassified subsequently to profit or loss when specific conditions are met:		
Cash flow hedges [20]:		
Gains or losses (-) arising during the period	-114	166
Income tax	29	-41
	<b>-85</b>	<b>125</b>
Currency translation adjustments [20]:		
Gains or losses (-) arising during the period	20	-2
Fair value adjustment available-for-sale financial assets:		
Unrealized gains or losses (-) arising during the period [14]	-356	363
Income tax on unrealized gains or losses (-) [9]	95	-91
Realized gains through profit or loss [14]	-2	-184
Income tax on realized gains [9]	-	46
	<b>-263</b>	<b>134</b>
<b>Net other comprehensive income/ loss (-) to be reclassified to profit or loss in subsequent periods</b>	<b>-328</b>	<b>257</b>
<b>Other comprehensive income/ loss (-) for the year, net of income tax</b>	<b>-385</b>	<b>304</b>
<b>Total comprehensive income for the year, net of income tax</b>	<b>415</b>	<b>963</b>
<b>Total comprehensive income attributable to:</b>		
Equity holders of the company	408	942
Non-controlling interests	7	21
<b>Total comprehensive income for the year, net of income tax</b>	<b>415</b>	<b>963</b>
<b>Total comprehensive income/ loss (-) attributable to equity holders of the company arises from:</b>		
Continuing operations	-22	807
Discontinued operations	430	135

[.] Bracketed numbers refer to the related Notes to the Consolidated Financial Statements, which form an integral part of these Consolidated Financial Statements.

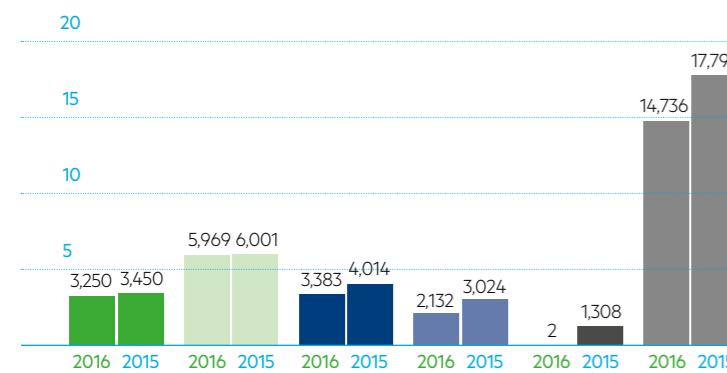
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## Consolidated Statement of Financial Position

### Assets

Amounts in millions of EUR	December 31, 2016	December 31, 2015
<b>Non-current assets</b>		
Goodwill	1,428	1,428
Licenses	1,037	1,180
Software	519	556
Other intangibles	266	286
<b>Total intangible assets [11]</b>	<b>3,250</b>	<b>3,450</b>
Land and buildings	489	525
Plant and equipment	5,238	5,230
Other tangible non-current assets	31	38
Assets under construction	211	208
<b>Total property, plant and equipment [12]</b>	<b>5,969</b>	<b>6,001</b>
Investments in associates and joint ventures [13]	24	42
Loans to associates and joint ventures	–	20
Available-for-sale financial assets [14]	1,909	2,272
Derivative financial instruments [26]	298	530
Deferred income tax assets [9]	1,091	1,069
Trade and other receivables [15]	61	81
<b>Total other non-current assets</b>	<b>3,383</b>	<b>4,014</b>
<b>Total non-current assets</b>	<b>12,602</b>	<b>13,465</b>
<b>Current assets</b>		
Inventories [16]	47	65
Trade and other receivables [15]	766	778
Income tax receivables [9]	–	58
Derivative financial instruments [26]	–	102
Other current financial assets [17]	140	575
Cash and cash equivalents [18]	1,179	1,446
<b>Total current assets</b>	<b>2,132</b>	<b>3,024</b>
<b>Assets and disposal groups classified as held for sale [19]</b>	<b>2</b>	<b>1,308</b>
<b>Total assets</b>	<b>14,736</b>	<b>17,797</b>

[..] Bracketed numbers refer to the related Notes to the Consolidated Financial Statements which form an integral part of these Consolidated Financial Statements.

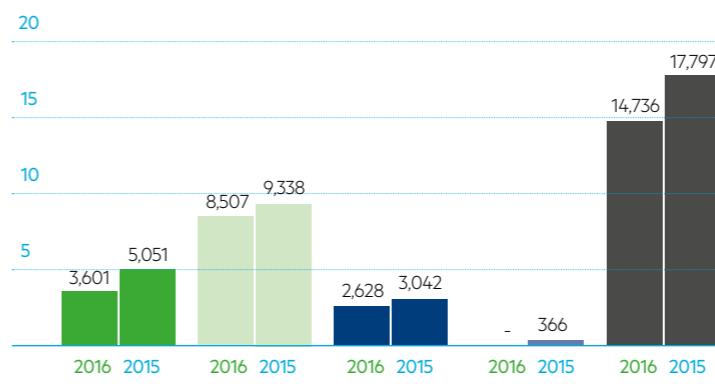


- Intangible assets
- Property, plant and equipment
- Other non-current assets
- Current assets
- Non-current assets and disposal groups classified as HFS
- Total assets

### Group equity and Liabilities

Amounts in millions of EUR	December 31, 2016	December 31, 2015
<b>Group equity</b>		
Share capital	171	171
Share premium	8,651	9,847
Other reserves	-451	-125
Retained earnings	-5,859	-6,000
Equity attributable to holders of perpetual capital securities	1,089	1,089
<b>Equity attributable to equity holders of the company [20]</b>	<b>3,601</b>	<b>4,982</b>
Non-controlling interests [20]	–	69
<b>Total group equity [20]</b>	<b>3,601</b>	<b>5,051</b>
<b>Non-current liabilities</b>		
Borrowings [22]	7,897	8,853
Derivative financial instruments [26]	197	17
Deferred income tax liabilities [9]	–	47
Provisions for retirement benefit obligations [23]	262	259
Provisions for other liabilities and charges [24]	89	97
Other payables and deferred income [25]	62	65
<b>Total non-current liabilities</b>	<b>8,507</b>	<b>9,338</b>
<b>Current liabilities</b>		
Trade and other payables [25]	1,839	2,090
Borrowings [22]	735	847
Derivative financial instruments [26]	1	3
Income tax payables [9]	4	43
Provisions for other liabilities and charges [24]	49	59
<b>Total current liabilities</b>	<b>2,628</b>	<b>3,042</b>
<b>Liabilities directly associated with assets and disposal groups classified as held for sale [19]</b>	<b>–</b>	<b>366</b>
<b>Total equity and liabilities</b>	<b>14,736</b>	<b>17,797</b>

[..] Bracketed numbers refer to the related Notes to the Consolidated Financial Statements which form an integral part of these Consolidated Financial Statements.



- Group equity
- Non-current liabilities
- Current liabilities
- Liabilities associated with non-current assets and disposal groups classified as HFS
- Total equity and liabilities

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## Consolidated Statement of Cash Flows

For the year ended December 31

Amounts in millions of EUR	2016	2015	Amounts in millions of EUR	2016	2015
Profit before income tax from continuing operations	466	605	Dividends paid	-487	-495
Adjustments for:			Paid coupon perpetual hybrid bonds	-67	-67
– Net financial expense [8]	417	105	Proceeds from borrowings	1,235	–
– Share-based compensation [5]	7	8	Repayments of borrowings and settlement of derivatives [22]	-2,137	-929
– Share of the loss of associates and joint ventures [13]	1	-2	Capital repayment [20]	-1,193	–
– Depreciation, amortization and impairments [7]	1,545	1,616	Other [27]	-72	-5
– Other non-cash income and expense	-23	-2	<b>Net cash flow used in financing activities from continuing operations</b>	<b>-2,721</b>	<b>-1,496</b>
– Changes in provisions (excluding deferred taxes)	-68	-44	Net cash flow used in financing activities from discontinued operations [19]	–	–
Changes in working capital relating to:			<b>Net cash flow used in financing activities [27]</b>	<b>-2,721</b>	<b>-1,496</b>
– Inventories	19	-12			
– Trade receivables	7	63			
– Prepayments and accrued income	15	53			
– Other current assets	1	18			
– Trade payables	-137	63			
– Accruals and deferred income	-44	-145			
– Current liabilities (excluding short-term financing)	18	-10			
Dividends received [13, 14]	110	147			
Income taxes paid/received	50	18			
Interest paid/received	-460	-485			
<b>Net cash flow provided by operating activities from continuing operations</b>	<b>1,924</b>	<b>1,996</b>			
Net cash flow provided by / used in (-) operating activities from discontinued operations [19]	-7	222			
<b>Net cash flow provided by operating activities</b>	<b>1,917</b>	<b>2,218</b>			
Disposal of available-for-sale financial assets [14]	31	805			
Acquisition of subsidiaries, associates and joint ventures (net of acquired cash)	-37	-73			
Disposal of subsidiaries, associates and joint ventures (net of cash)	3	-1			
Investments in intangible assets (excluding software)	-26	-4			
Investments in software	-276	-288			
Investments in property, plant and equipment	-917	-1,012			
Disposals of property, plant and equipment	10	3			
Changes in other current financial assets [17]	435	-275			
Other	1	-1			
<b>Net cash flow used in (-) investing activities from continuing operations</b>	<b>-776</b>	<b>-846</b>			
Net cash flow provided by / used in (-) investing activities from discontinued operations [19]	1,183	-247			
<b>Net cash flow used in (-) /provided by investing activities [27]</b>	<b>407</b>	<b>-1,093</b>			

[..] Bracketed numbers refer to the related Notes to the Consolidated Financial Statements which form an integral part of these Consolidated Financial Statements.

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## Consolidated Statement of Changes in Group Equity

Amounts in millions of EUR, except number of shares	Number of subscribed shares <sup>1</sup>	Share capital	Share premium	Other reserves	Retained earnings	Equity attributable to holders of perpetual capital securities	Equity attributable to equity holders of the company	Non-controlling interests	Total Group equity
<b>Balance as of December 31, 2014</b>	<b>4,270,254,664</b>	<b>171</b>	<b>9,847</b>	<b>-388</b>	<b>-6,146</b>	<b>1,089</b>	<b>4,573</b>	<b>57</b>	<b>4,630</b>
Profit for the year					638		638	21	659
Other comprehensive income for the year				257	47		304		304
<b>Total comprehensive income for the year</b>				<b>257</b>	<b>685</b>		<b>942</b>	<b>21</b>	<b>963</b>
Share-based compensation [5]					-3		-3		-3
Sold treasury shares				6	-		6		6
Paid coupon perpetual hybrid bond (net of tax)					-51		-51		-51
Dividends paid					-485		-485	-9	-494
<b>Total transactions with owners, recognized directly in equity</b>				<b>6</b>	<b>-539</b>		<b>-533</b>	<b>-9</b>	<b>-542</b>
<b>Balance as of December 31, 2015</b>	<b>4,270,254,664</b>	<b>171</b>	<b>9,847</b>	<b>-125</b>	<b>-6,000</b>	<b>1,089</b>	<b>4,982</b>	<b>69</b>	<b>5,051</b>
Profit for the year					793		793	7	800
Other comprehensive income for the year				-328	-57		-385		-385
<b>Total comprehensive income for the year</b>				<b>-328</b>	<b>736</b>		<b>408</b>	<b>7</b>	<b>415</b>
Share-based compensation [5]					-10		-10		-10
Sold treasury shares				14	-		14		14
Paid coupon perpetual hybrid bond (net of tax)					-51		-51		-51
Dividends paid					-460		-460	-26	-486
Capital repayment [20]		-1,196		3	-		-1,193		-1,193
Acquisitions <sup>2</sup>					-89		-89	-57	-146
Other				-15	15		-	7	7
<b>Total transactions with owners, recognized directly in equity</b>		<b>-1,196</b>		<b>2</b>	<b>-595</b>		<b>-1,789</b>	<b>-76</b>	<b>-1,865</b>
<b>Balance as of December 31, 2016</b>	<b>4,270,254,664</b>	<b>171</b>	<b>8,651</b>	<b>-451</b>	<b>-5,859</b>	<b>1,089</b>	<b>3,601</b>		<b>3,601</b>

[...] Bracketed numbers refer to the related Notes to the Consolidated Financial Statements which form an integral part of these Consolidated Financial Statements.

<sup>1</sup> Subscribed ordinary shares (including treasury shares).<sup>2</sup> This relates to the acquisitions of the remaining shares in GroupIT B.V. and Glasvezelnet Amsterdam B.V. which have been recorded as transactions between equity holders. Read more in Note 20, 27 and 29.

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## General Notes to the Consolidated Financial Statements

### [1] General information

KPN is the leading telecommunications and information and communications technology (ICT) provider in the Netherlands, offering fixed and mobile telephony, fixed and mobile broadband internet and TV to retail consumers. KPN is also market leader in the Netherlands in infrastructure and network related ICT solutions to business customers, including other telecommunications operators. KPN also provides wholesale network services to third parties and operates an IP-based infrastructure for international wholesale customers through KPN's US-based subsidiary iBasis.

Koninklijke KPN N.V. (KPN or the company) was incorporated in 1989 and is domiciled in the Netherlands. The address of its registered office is Maanplein 55, 2516 CK, The Hague. KPN's shares are listed on Euronext Amsterdam.

The Financial Statements as of and for the year ended December 31, 2016 of Koninklijke KPN N.V. were approved for issuance by both the Supervisory Board and the Board of Management on February 23, 2017 and are subject to adoption by the Annual General Meeting of Shareholders on April 12, 2017.

### [2] Summary of significant accounting policies

#### Basis of preparation

The Consolidated Financial Statements of KPN have been prepared:

- › in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS) and with the statutory provisions of Part 9, Book 2 of the Dutch Civil Code;
- › under the historical cost convention, except for available-for-sale financial assets and financial assets and financial liabilities (including derivative instruments) at fair value through profit or loss; and
- › on a going concern basis.

Consolidated financial information, including subsidiaries, associates and joint ventures, has been prepared using uniform accounting policies for similar transactions and other events in similar circumstances.

#### Summary of significant accounting policies

The general accounting policies as applied in these Consolidated Financial Statements as a whole are described below. Significant accounting policies are described in the relevant Notes to these Consolidated Financial Statements. Accounting policies have been applied consistently to all years presented, unless stated otherwise.

#### Changes in accounting policies and disclosures

KPN applies new standards and amendments issued by the International Accounting Standards Board (IASB), when effective and endorsed by the European Union. KPN has not early adopted any of these standards. Only those new standards or amendments with a material impact on KPN or those that are considered relevant for users of these Financial Statements are discussed.

#### Implications of new and amended standards and interpretations

As of January 1, 2016, KPN applies the amendments to IAS 1 'Presentation of Financial Statements'. These amendments clarify or significantly change several existing IAS 1 requirements including:

- › the materiality requirements in IAS 1;
- › that specific line items in the Statement of Profit or Loss, Other Comprehensive Income and Statement of Financial Position may be disaggregated;
- › the flexibility of the order in which Notes to Financial Statements are presented; and
- › that the share of other comprehensive income of associates and joint ventures accounted for using the equity method must be presented in aggregate as a single line item, and classified between items that will or will not be subsequently reclassified to profit or loss.

The amendments had limited impact on KPN's Consolidated Financial Statements.

#### Future implications of new and amended standards and interpretations

The IASB has issued several new standards and amendments with an effective date of January 1, 2017 or later. Those with an expected material impact for KPN are discussed below.

As three new IFRS standards (IFRS 9, IFRS 15 and IFRS 16) with an expected material impact on KPN's financial performance and / or the presentation thereof will become effective in the next years, KPN established enterprise-wide, multidisciplinary IFRS project teams dedicated to ensure timely and appropriate implementation. These project teams are governed by a Steering Committee and provide regular progress reports to the Board of Management and to the Audit Committee.

For all three standards, the implementation plans comprise four phases:

- › accounting policy impact analysis;
- › decision on accounting policies and IT design;
- › implementation; and
- › completion and integration of all system process changes.

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### **IFRS 9 'Financial Instruments'**

This standard introduces new requirements for classification and measurement, impairment and hedge accounting of financial instruments. IFRS 9 must be applied retrospectively. However, the hedge accounting requirements are generally applied prospectively. Apart from some aspects of hedge accounting, restatement of comparative information is not mandatory and is only permitted if information is available without the use of hindsight.

IFRS 9 is expected to have an impact on the classification and measurement of KPN's financial assets and liabilities, for which KPN has started the accounting impact analysis. The project team also specifically addresses dependencies with other existing and new IFRS standards, including IFRS 15 and IFRS 16. Based on the impact analysis, KPN will take decisions on accounting policies and IT if needed. As these new accounting policy decisions have not yet been completed, no reliable estimate of the impact is available.

IFRS 9 will be effective as of January 1, 2018, but may be applied earlier. The standard has been endorsed by the European Union. KPN will not early adopt this standard.

### **IFRS 15 'Revenue from Contracts with Customers'**

This new standard introduces new guidance on the recognition and measurement of revenues and also provides a model for the sale of some non-financial assets that are not an output of a company's ordinary business activities.

In 2016, KPN completed the detailed contract analysis for all of KPN's revenue streams. As part of this analysis the impact of applying IFRS 15 accounting policies and policy choices, if any, was modelled for decision making. To date, KPN has finalized and approved the IFRS 15 accounting policies and target IT architecture. In addition, software solution for the IFRS 15 implementation was purchased after a vendor selection process. The IFRS project team is now working on the implementation of the IT solution.

IFRS 15 will be effective as of January 1, 2018. Based on our current project plan, the 2017 reported results will be restated to reflect the changes introduced by IFRS 15. KPN does not intend to early adopt this standard.

The required changes to our revenue recognition policies are expected to have a material impact on our financial statements. There will be adjustments to our opening equity upon transition to IFRS 15 as well as changes to KPN's Consolidated Financial Statements and Notes. Reliable quantitative estimates of the impact are not yet available. The main expected qualitative impacts are explained below. KPN intends to apply IFRS 15 in 2018 retrospectively, including restatement of the 2017 comparative figures.

#### > Sales via KPN shops and website

For KPN, IFRS 15 will result in earlier recognition of non-service revenue due to the removal of the cash restriction rule currently applied in multiple element arrangements. As a result hereof, KPN also expects a shift from service to non-service revenue as contract revenues are allocated to components in a contract based on their relative standalone selling price. As an example, compared to the current accounting policies, a postpaid subscription with a handset will result in recognition of higher non-service revenues upon delivery of the handset to the customer and lower subscription fees (service revenues) during the subscription period for direct sales.

#### > Sales via third parties

For sales via third parties IFRS 15 will result in a decrease of revenue, as handset installments will no longer be recorded as service revenue. As an example, compared to the current accounting policies a postpaid subscription with a handset sold via the indirect channel will result in lower subscription fees (service revenues) during the subscription period since handset-related instalments will no longer be reported in the Statement of Profit or Loss. For dealer fees, the IFRS 15 impact depends on the type of dealer fees. Handset-related fees will be capitalized, creating an unbilled receivable that will decrease when instalments are billed, i.e. handset-related fees will no longer be reported as part of operating expenses. Costs of dealer commissions paid to acquire or retain subscribers will no longer be expensed as incurred but capitalized and recognized on a straight-line basis over the contract term of the underlying customer contract.

#### > Other elements

KPN does not expect a material impact from other elements such as the requirements in respect of significant financing and the application of the percentage of completion method for ICT solutions within the business segment.

#### > Financial statements

Draft IFRS financial statements and disclosures have been prepared, based on the approved accounting policies and optional expedients available under IFRS 15. Upon implementation, the disclosures in KPN's Consolidated Financial Statements will be expanded to include required information such as movement schedules for recognized contract assets and contract liabilities, information about performance obligations and information on key judgments and estimates applied in recognition and measurement of revenues. These statements and disclosures will be used as of 2018.

#### > Internal controls

KPN does not expect that the implementation of IFRS 15 will have a significant impact on internal controls. However, some additional controls will be required around reporting opening balance adjustments and source systems that were previously not used for external reporting.

### **IFRS 16 'Leases'**

This standard introduces on balance sheet accounting for (almost) all leases. For lessees, the distinction between financial leases ('on balance') and operating leases ('off balance') is removed whereas for lessors, these two types of leases remain in place. IFRS 16 will have a significant impact on KPN's Consolidated Statement of Financial Position due to the recognition of the right of use of the leased assets and corresponding lease liabilities. Also, an impact is expected on KPN's Consolidated Statement of Profit or Loss as operating lease fees will no longer be part of operating expenses but will become part of depreciation and interest expenses. EBITDA and operating profit will increase, but the impact on profit before tax is not expected to be significant. Furthermore, an impact is expected on KPN's Consolidated Statement of Cash Flows as payments for the principal portion of lease liabilities will be presented within financing activities.

As at December 31, 2016, KPN reports an off balance sheet obligation for operating leases of EUR 821 million, determined based on the nominal contract values of KPN's operating leases. IFRS 16 requires the lease liability to be recognized at discounted value and, among other factors, requires that the likelihood of early terminations or expected use of renewal options are taken into account as well. Therefore, the amounts KPN will recognize as lease liability and right of use asset upon transition are not expected to be equal to the currently reported off balance sheet obligation.

In 2016, KPN performed the initial accounting policy impact analysis and is currently finalizing the identification of leases in scope. KPN is preparing for decisions on accounting policies and IT design. As new accounting policy decisions have not yet been finalized, no reliable estimate of the impact is available. IFRS 16 will be effective as of January 1, 2019, but may be applied earlier in conjunction with IFRS 15. The standard has not yet been endorsed by the European Union. KPN has not decided yet if it will early adopt this standard in 2018.

### **Amendments to existing standards**

> Amendments to IFRS 2 'Share-based Payments' provide requirements on the accounting for a) the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments, b) share-based payment transactions with a net settlement feature for withholding tax obligations, and c) a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. These amendments are effective as of January 1, 2018, and are not expected to have a significant impact on accounting or disclosures.

> Amendments to IAS 7 'Statement of Cash Flows' result from the Disclosure Initiative, require additional information on the changes in liabilities arising from financing activities, including disclosures of cash flow and non-cash flow movements. These amendments are effective as of January 1, 2017, and are limited to the disclosures in KPN's Consolidated Financial Statements.

### **Basis of consolidation**

KPN's Consolidated Financial Statements include the financial results of its subsidiaries and incorporate KPN's share of the results from associates and joint ventures. Read more in Note 13 (accounting policy on associates and joint ventures).

### **Subsidiaries**

Subsidiaries are all entities directly or indirectly controlled by KPN. Control is defined as the power over an entity, i.e. the ability to govern the financial and operating policies, resulting in obtaining the gains or losses from the entity's activities. Subsidiaries are fully consolidated from the date on which control is obtained by KPN and are deconsolidated from the date on which KPN's control ceases. All intercompany transactions, balances and unrealized results on transactions with subsidiaries are eliminated.

### **Changes in ownership interests in subsidiaries without change of control**

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

### **Disposal of subsidiaries**

When control ceases, any retained interest in the entity is remeasured to its fair value on the date when control is lost, with the change in carrying amount recognized in the Statement of Profit or Loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in Other Comprehensive Income (OCI) in respect of that entity are accounted for as if KPN had directly disposed of the related assets or liabilities. This may mean that amounts previously recognized in OCI are reclassified to profit or loss.

### **Foreign currency translation**

#### **Functional and presentation currency**

These Financial Statements are presented in euro (EUR), which is KPN's presentation currency and functional currency. Each entity within the KPN Group has its own functional currency, which is determined based on the primary economic environment in which the entity operates. All amounts are rounded to millions unless stated otherwise.

### **Transactions and balances**

Transactions in foreign currencies are translated into euro using the exchange rates applicable at transaction date. At reporting date, monetary assets and liabilities denominated in foreign currencies are translated to euro using the rates at reporting date. Exchange rate differences are recognized in the Statement of Profit or Loss except when these differences are related to qualifying cash flow hedges and qualifying

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net investment hedges in which case the exchange rate differences are recorded in OCI. Exchange rate differences on non-monetary assets and liabilities are reported as part of the fair value gain or loss from that asset or liability. Exchange rate differences arising from the translation of the net investment in foreign entities, of borrowings and other currency instruments designated as hedges of such investments are recognized in the Statement of OCI.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate at the reporting date.

### Subsidiaries

The results and financial position of subsidiaries that have a functional currency other than KPN's presentation currency (EUR) are translated for consolidation purposes at closing rate of the date of the financial position (assets and liabilities) or at the average exchange rates applicable for the specific reporting period (income and expenses). All resulting exchange differences are recognized in OCI (in the currency translation reserve, a separate component within equity).

### Financial assets and liabilities

KPN's financial assets consist of these main categories:	KPN's financial liabilities consist of these main categories:
> Financial assets at fair value through profit or loss	Notes 17/26 › Loans and borrowings Note 22
> Loans and receivables	Notes 13/15/28 › Derivative financial instruments Note 26
> Held-to-maturity investments	Note 17
> Available-for-sale financial assets	Note 14
> Derivative financial instruments	Note 26

At initial recognition, KPN's management determines the appropriate classification of financial assets and financial liabilities in one of these categories. For financial assets, the classification depends on the purpose for which the financial assets were acquired. Management assesses the designation of financial assets and liabilities at every reporting date.

All financial assets are initially recognized at fair value plus transaction costs attributable to the acquisition of the asset if a financial asset is not recorded at fair value through profit or loss. Subsequent measurement depends on the classification of the financial asset.

All financial liabilities are initially recognized at fair value net of directly attributable transaction costs (in case of loans and borrowings). Subsequent measurement depends on the classification of the financial liability.

### Significant accounting estimates, judgments and assumptions

The preparation of these Financial Statements requires management to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses as well as the information disclosed and the contingent liabilities. Actual results may therefore deviate from the estimates applied. Estimates and judgments are evaluated continuously and are based on historic experience and other factors, including expectations of future events thought to be reasonable under the circumstances. Estimates are revised when material changes to the underlying assumption occur.

The accounting estimates, judgments and assumptions deemed significant to KPN's financial statements relate to:

The determination of deferred tax assets for losses carry forward and provisions for tax contingencies Note 9

The determination of fair value less costs of disposal and value in use of cash-generating units for goodwill impairment testing Note 11

The depreciation rates for the copper and fiber network included within property, plant and equipment Note 12

The valuation of available-for-sale financial assets with significant or prolonged fair market value below the historic cost value. In this context, KPN deems 20% 'significant' and a period of nine months measured at reporting date 'prolonged'

The 'more likely than not' assessment required to determine whether or not to recognize a provision for idle cables, which are part of a public electronic communications network Notes 24/30

The assessments of exposure to credit risk and financial market risks Note 28

In preparing these Financial Statements, KPN has applied the concept of materiality to the presentation and (level of) disclosures.

## [3] Segment reporting

Operating segments are reported in a manner consistent with the internal reporting to KPN's CEO, who is the Chief Operating Decision Maker according to IFRS 8 'Operating Segments'.

### Changes organizational structure

#### Changes to reporting format

As of January 1, 2016, KPN implemented a new organizational structure with KPN's CCO and COO managing Commercial and Operations respectively. The new structure, with a functional focus, has been implemented to enable a more direct control of KPN's operational activities and provide increased cost visibility. The changes resulted in identification of the new Reporting Segments as presented in this Note.

The main changes in the reporting format are:

- > Elimination of most internal revenues; Network, Operations & IT has been set up as a cost center;
- > Consumer Residential and Consumer Mobile are merged into Consumer segment;
- > Consumer & Business operations (including field engineers) moved from Consumer and Business segments to Network, Operations & IT;
- > Wholesale separated from Consumer Mobile and NetCo
- > Corporate Center activities are transferred from Other activities to Other the Netherlands; and
- > New functional split in operating expenses.

### Restatement split operating expenses



As reported in 2015	New functional split
Cost of materials 680	Cost of goods & services 2,209
Work contracted out and other expenses 2,662	Information Technology / Technical Infrastructure 535
Employee benefits 1,107	Personnel expenses 1,260
Depreciation, amortization and impairments 1,616	Depreciation, amortization and impairments 1,616
Other operating expenses 325	Other operating expenses 680
Own work capitalized -90	
<b>Total operating expenses 6,300</b>	<b>Total operating expenses 6,300</b>

### Sale of Belgium Segment

The sale of BASE Company was completed on February 11, 2016. As BASE Company was KPN's Belgium Segment, this segment has been eliminated from the disclosures in this Note. Read

Note 19 for more information on the sale of BASE Company. Comparative information has been restated for these changes. KPN's operating segments are summarized below.

### The Netherlands

Commercial	Operations
> Consumer segment – dedicated to offer KPN's retail customers a broad range of services in the areas of communication, information, entertainment and commercial services through single play and multi-play offerings. The offered services include fixed and mobile telephony, mobile data, providing internet and TV.	> Wholesale segment – provides connectivity solutions to KPN's fixed and mobile wholesale partners via KPN's copper, fiber-optic and mobile networks.
> Business segment – KPN offers KPN's business customers (small, medium-sized, large and corporate) a complete portfolio of services from fixed and mobile telephony and internet to a range of end-to-end solutions in infrastructure, workspace management, data network and datacenter services.	> Network, Operations & IT segment (NOI) – responsible for KPN's operational activities for the Dutch networks (both fixed and mobile) and IT services for KPN's consumer and business customers.

The Netherlands' Other Segment includes the results of KPN's Corporate Center (support) and eliminations.

### iBasis

Through iBasis, KPN is a leading player in the international wholesale voice market in terms of minutes carried. iBasis offers a comprehensive portfolio of voice termination and data services for many of the world's largest fixed and mobile operators, as well as voice-over-broadband.

### Other activities

Other activities comprise KPN Holding, remaining activities abroad and eliminations. Also, comparative information includes SNT Germany (sold March 2015) and the effect of winding down of Ortel France.

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### Inter-segment pricing

- KPN's mobile terminating services are regulated in some aspects. The price level of the mobile terminating services to external wholesale operators has been set in consultation with and approved by the Dutch competition and telecommunications regulators. The mobile terminating tariffs are applied on a non-discriminatory basis within the segment Consumer, Business and Wholesale and to other operators;
- Roaming tariffs between KPN's Mobile operators are based on bilateral agreements and contain generally similar terms as bilateral agreements with third parties; and
- As of January 1, 2016, KPN terminated most of the intercompany settlements, except for:
  - The intercompany settlements that are relevant for determining the tax return of KPN, for instance intercompany settlements with several subsidiaries;
  - The intercompany settlements that are necessary for the capitalization of project-costs.

### Segment performance

As most of the intercompany settlements have been stopped as of January 1, 2016, the EBITDA of Consumer, Business and Wholesale has become the contribution margin of these segments and the EBITDA of NOI consists mostly of operating expenses.

Due to the fact that KPN neither allocates interest expenses to segments nor accounts for taxes in the segments, the disclosure is limited to operating profit for the year.

For an explanation of incidental transactions included in Revenues, Other income and EBITDA, read more in Appendix 1 of these Financial Statements. Appendix 1 also includes the bridge between the reported and adjusted results per segment. Segment information on employee numbers is available in Note 5. More details on investments per segment are available in Notes 11 and 12.

### Geographical information (continuing operations)

**Amounts in millions of EUR (excluding deferred taxes and derivative financial instruments)**

■ 2016  
■ 2015

#### The Americas

Total non-current assets: 81 128  
Total intangible assets: 55 100  
Total property, plant and equipment: 23 24  
Total revenues and other income: 778 813

#### Other

Total non-current assets: 2 -34  
Total intangible assets: -1 -39  
Total property, plant and equipment: 1 3  
Total revenues and other income: 5 59



#### The Netherlands

Total non-current assets: 11,129 11,772  
Total intangible assets: 3,196 3,389  
Total property, plant and equipment: 5,945 5,974  
Total revenues and other income: 6,023 6,136

#### Total

Total non-current assets: 11,212 11,866  
Total intangible assets: 3,250 3,450  
Total property, plant and equipment: 5,969 6,001  
Total revenues and other income: 6,806 7,008

### Segmentation 2016

Amounts in millions of EUR	Commercial			Operations			Total The Netherlands	iBasis	Other activities <sup>3</sup>	KPN Group Consolidated
	Consumer	Business	Wholesale	NOI	Other <sup>3</sup>					
<b>Statement of Profit or Loss</b>										
External revenues <sup>1</sup>	3,118	2,249	625	15	14	6,021	779	1	6,801	
Other income	-	-	1	2	-1	2	1	2	5	
Inter-division revenues	21	54	137	-	-183	29	87	-116	-	
<b>Total [4]</b>	<b>3,139</b>	<b>2,303</b>	<b>763</b>	<b>17</b>	<b>-170</b>	<b>6,052</b>	<b>867</b>	<b>-113</b>	<b>6,806</b>	
Operating expenses [5,6]	-1,268	-921	-227	-1,160	-74	-3,650	-844	117	-4,377	
<b>EBITDA<sup>2</sup></b>	<b>1,871</b>	<b>1,382</b>	<b>536</b>	<b>-1,143</b>	<b>-244</b>	<b>2,402</b>	<b>23</b>	<b>4</b>	<b>2,429</b>	
DA&I [7]	-208	-73	-11	-1,180	-15	-1,487	-57	-1	-1,545	
<b>Operating profit</b>	<b>1,663</b>	<b>1,309</b>	<b>525</b>	<b>-2,323</b>	<b>-259</b>	<b>915</b>	<b>-34</b>	<b>3</b>	<b>884</b>	
Total assets	4,225	2,743	886	9,803	7,282	24,939	334	-10,537	14,736	
Total liabilities	4,352	2,722	886	9,533	-14,886	2,607	198	8,330	11,135	
<b>Other</b>										
Investments in associates and JVs:	-	-	-	-	-	1	1	-	23	24
Results associates and JVs	-	-1	-	-	-	-1	-	-	-	-1

1 External revenues mainly consist of rendering of services.

2 Earnings before interest, tax and depreciation, amortization and impairments.

3 Including eliminations.

### Segmentation 2015 (restated)

Amounts in millions of EUR	Commercial			Operations			Total The Netherlands	iBasis	Other activities <sup>3</sup>	KPN Group Consolidated
	Consumer	Business	Wholesale	NOI	Other <sup>3</sup>					
<b>Statement of Profit or Loss</b>										
External revenues <sup>1</sup>	3,075	2,427	598	15	16	6,131	813	62	7,006	
Other income	1	-	-	-	1	2	-	-	2	
Inter-division revenues	19	55	132	1	-178	29	107	-136	-	
<b>Total [4]</b>	<b>3,095</b>	<b>2,482</b>	<b>730</b>	<b>16</b>	<b>-161</b>	<b>6,162</b>	<b>920</b>	<b>-74</b>	<b>7,008</b>	
Operating expenses [5,6]	-1,298	-1,014	-235	-1,203	-111	-3,861	-897	-74	-4,684	
<b>EBITDA<sup>2</sup></b>	<b>1,797</b>	<b>1,468</b>	<b>495</b>	<b>-1,187</b>	<b>-272</b>	<b>2,301</b>	<b>23</b>	<b>-</b>	<b>2,324</b>	
DA&I [7]	-286	-99	-7	-1,192	-13	-1,597	-11	-8	1,616	
<b>Operating profit</b>	<b>1,511</b>	<b>1,369</b>	<b>488</b>	<b>-2,379</b>	<b>-285</b>	<b>704</b>	<b>12</b>	<b>-8</b>	<b>708</b>	
Total assets	3,164	2,499	868	11,594	7,460	25,585	390	-8,178	17,797	
Total liabilities	3,214	2,427	868	11,006	-14,714	2,801	218	9,727	12,746	
<b>Other</b>										
Investments in associates and JVs:	-	-	-	17	2	19	-	23	42	
Results associates and JVs	-	-	-	-	-	-	-	2	2	

1 External revenues mainly consist of rendering of services.

2 Earnings before interest, tax and depreciation, amortization and impairments.

3 Including eliminations.

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## Notes to the Consolidated Statement of Profit or Loss

### [4] Revenues and Other income

Amounts in millions of EUR	2016	2015
Rendering of services	6,566	6,711
Sale of goods	214	272
Other revenues	21	23
Other income	5	2
<b>Total revenues and other income</b>	<b>6,806</b>	<b>7,008</b>

#### Accounting policy: Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable for the sale of goods and services. Revenue is recognized when it is probable that the economic benefits associated with a transaction will flow to KPN and the amount of revenue and the associated costs can be measured reliably. Revenues are presented net of value-added tax, rebates and discounts and after eliminating. KPN presents revenue gross of costs when the Group acts as the principal in the arrangement and net of costs when the Group acts as agent.

#### Rendering of services

Rendering of services includes:

- › Traffic fees, charged at an agreed tariff for a fixed duration of time or capacity and recognized as revenue based upon usage of KPN's network and facilities;
- › Subscription fees for the usage of KPN's networks, recognized as revenues over the subscription period;
- › Revenue related to airtime is recognized as revenue based on the expected usage of airtime per proposition;
- › Revenues from designing, building, deploying and managing ICT solutions that are provided on a time and material basis or as a fixed-price contract with terms generally ranging from less than one to three years.
  - Revenue from time and material contracts is recognized as labor hours are delivered and direct expenses are incurred.
  - Revenue from fixed-price contracts is recognized under the percentage-of-completion (POC) method unless the outcome of the contract cannot be estimated reliably. Under the POC method, the percentage of revenue recognized is determined by

comparing the cost incurred with the total expected project cost.

- Revenue from fixed-price contracts involving managed services is recognized in the period the services are provided using a straight-line basis over the term of the contract. When the outcome of the contract cannot be estimated reliably, revenue is recognized only to the extent of contract costs incurred.

#### Sale of goods

The sale of goods includes peripheral and other equipment. Revenue is recognized when all significant risks and rewards of ownership of the goods are transferred to the buyer, which is normally at the date the equipment is delivered to and accepted by the customer.

#### Revenue arrangements with multiple deliverables

For arrangements with customers that include multiple deliverables (for example a postpaid subscription combined with a handset), revenues are allocated to the separate elements (units of accounting) based on their relative fair values. If the fair value of the delivered item exceeds the cash received at the time of delivery, revenue is recognized up to the non-contingent cash received. Costs associated with these arrangements are expensed as incurred.

One-off connection fees and other initial fees are not a separate unit of accounting and their accounting treatment is therefore dependent on the other deliverables in the sales arrangements:

- › Any connection fees not allocated to delivered equipment are deferred upon connection and recognized as service revenues over the customer contract period unless KPN has the obligation to continue providing services beyond that period, in which case the expected customer service period is used, and
- › For multiple deliverable arrangements that comprise only one unit of accounting and include an upfront connection fee, amounts representing connection fees are deferred and recognized pro rata.

Deferred connection fees are amortized over the customer contract period.

#### Other revenues

Other revenues mainly include royalties and proceeds from operating leases where KPN acts as lessor.

#### Other income

Other income includes gains on the sale of property, plant and equipment as well as other gains not related to KPN's operating activities.

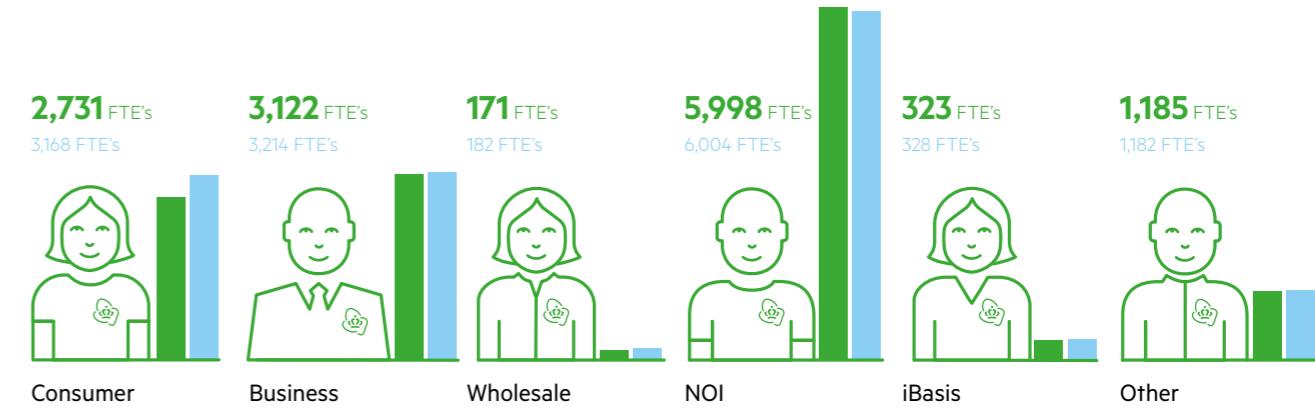
### [5] Personnel expenses

Amounts in millions of EUR	2016	2015 <sup>1</sup>
Salaries and wages	872	908
Retirement benefits [23]	77	90
Social security contributions	106	107
Additional labor capacity	158	179
Own work capitalized	-105	-90
Other	67	66
<b>Total personnel expenses</b>	<b>1,175</b>	<b>1,260</b>

<sup>1</sup> Certain amounts do not correspond to the 2015 financial statements, since personnel expenses have been restated to align with internal reporting. Read more in Note 3.

[..] Bracketed number refers to the related Note.

#### Number of own personnel (FTE) per segment at year end



**total FTE 2016: 13,530**

**total FTE 2015: 14,078**

Read more in Note 24 'Provisions for other liabilities and charges' for information on employee redundancy costs. Other operating expenses include an amount of EUR 55 million for restructuring costs related to personnel reductions (2015: EUR 89 million).

#### Share plans

KPN has granted shares (equity-settled) and share-based awards (cash-settled) on its shares to members of the Board of Management and senior management: the Performance Share Plan (PSP). The conditionally granted PSP award will vest after three years if the employee is still employed by KPN. The number of shares and share-based awards which vest partly depends on KPN's Total Shareholder Return (TSR) position ranking relative to its peer group of European telecommunications companies. Since 2011, vesting was based for 75% on relative TSR and for 25% on non-financial performance measures i.e. energy reduction targets and a reputation dashboard.

Since 2014, vesting is based on individual vesting of 25% relative TSR versus peer group, 25% Free Cash Flow, 25% Earnings Per Share, 12.5% on sustainability/environmental targets and 12.5% on stakeholder/customer targets. Vesting of non-financial targets will be subject to achieving a cumulative net profit during the vesting period of three years (i.e. a qualifier for vesting).

The list of companies included in the peer group and the vesting schedule can be found under 'Long-Term Incentives' in the 'Remuneration Report' section.

In May 2012 and May 2013, an additional equity settled plan was granted to senior management: the KPN Restricted Share Plan. Shares under this plan vested on January 1, 2015 (2012 grant) and on January 1, 2016 (2013 grant) if the employee was still employed by KPN. For this plan, no other performance measures are applicable.

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In April 2015, KPN's Chief Commercial Officer, Mr. Van der Post was granted 194,763 shares. Shares under this plan partially vest in 2016, 2017 and 2019 if he is still employed by KPN. For this plan, no other performance measures are applicable. The share plan rules provide the possibility to adjust granted rights under the incentive plans to maintain its economic value if for example, subsequent to the date of grant, shares

are split or merged, repayment on shares occurs, shares are stamped or an issue of shares occurs. This approach is aimed at reflecting the increased number of shares following a rights issue, for example, and is in line with market practice. The main features of the awards granted under the PSP and Restricted Share Plan to KPN management are summarized below:

The total compensation expense associated with the share plans was EUR 7 million in 2016 (2015: EUR 9 million) and the related liability (for cash-settled shares) on December 31, 2016 was EUR 12 million (2015: EUR 9 million). This liability is included under Other payables and deferred income. During 2016, KPN granted 4,073,000 shares and share-based awards (2015: 3,150,568) to members of the Board of Management

and senior management. For the Restricted Share Plan 2013, the service conditions were met in the year 2016. The intrinsic value at vesting was EUR 4 million. No vesting conditions were met in the years 2016 and 2015 for the PSP.

The following table presents the number of shares and share-based awards in thousands under the share plans.

		Maximum term	Settlement type <sup>1</sup>	Vesting period	Holding period after vesting of/until	Total Dec 31, 2014 <sup>3</sup>	Granted/ additional vesting <sup>1-2</sup>	Exercised/ Vested	Forfeited	Total Dec 31, 2015 <sup>3</sup>	Granted/ additional vesting <sup>2</sup>	Exercised/ Vested	Forfeited <sup>4</sup>	Total Dec 31, 2016 <sup>3</sup>	-of which: Non-vested
2013	Board of Management and Senior Management	5 years	Equity <sup>2</sup>	3 years	2 years	2012 Share-based awards Sr. Man.	1,553	–	–	-1,553	–	–	–	–	–
	Senior Management	3 years	Cash	3 years	–	2012 Shares BoM/Sr. Man.	506	–	–	-506	–	–	–	–	–
	Senior Management Restricted Share Plan	2.7 years	Equity	2.7 years	–	2012 Restricted Shares Sr. Man.	569	–	-557	-12	–	–	–	–	–
2014	Board of Management and Senior Management	5 years	Equity <sup>2</sup>	3 years	2 years	2013 Share-based awards Sr. Man.	1,622	–	–	-100	1,522	–	–	-1,522	–
	Senior Management	3 years	Cash	3 years	–	2013 Shares BoM/ Sr. Man.	533	–	–	–	533	–	–	-533	–
2015	Board of Management	5 years	Equity <sup>2</sup>	3 years	2 years	2013 Restricted Shares Sr. Man.	1,420	–	–	-101	1,319	–	-1,319	–	–
	Senior Management	3 years	Cash	3 years	–	2014 Share-based awards Sr. Man.	3,252	–	–	-304	2,948	241	–	-315	2,874 2,874
	Board of Management Chief Commercial Officer	4 years	Equity <sup>2</sup>	4 years	–	2014 Shares BoM/Sr. Man.	1,602	–	–	-99	1,503	123	–	-161	1,465 1,465
2016	Board of Management	5 years	Equity <sup>2</sup>	3 years	2 years	2015 Share-based awards Sr. Man.	–	2,091	–	–	2,091	189	–	-64	2,216 2,216
	Senior Management	3 years	Cash	3 years	–	2015 Shares BoM	–	865	–	–	865	78	–	–	943 943
	Board of Management	5 years	Equity <sup>2</sup>	3 years	2 years	2015 Shares Chief Commercial Off.	–	195	–	–	195	13	-49	–	159 159
	Senior Management	3 years	Cash	3 years	–	2016 Share-based awards Sr. Man.	–	–	–	–	–	2,529	–	–	2,529 2,529
						2016 Shares BoM	–	–	–	–	–	900	–	–	900 900

1 The cash-settled share awards will be settled in cash and no holding restrictions apply. An exception to the holding period for equity-settled plans is made with respect to shares that were sold upon vesting to cover the tax obligation on the vested shares. After vesting, the holder is able to sell a number of unconditional granted shares only up to the amount necessary to settle the wage taxes liability relating to the profit made on the stock compensation plan.

2 Including deferred dividend.

1 On the basis of a 100% grant. The equity-settled share numbers do not include any deferred dividend during the vesting period. The deferred dividend during the vesting period will be granted in additional shares.

2 At grant date, the fair value is calculated using a Monte Carlo Simulation model except for the restricted shares. At April 14, 2016, the fair value was EUR 3.17 (2015 grant: EUR 3.18) for the 2016 share-based award (cash-settled) and EUR 3.17 (2015 grant: EUR 3.18) for the 2016 equity-settled share grant for the Board of Management (excluding deferred dividend). At March 1, 2015, the fair value was EUR 2.91 for the 2015 share award (equity-settled) of KPN's Chief Commercial Officer. In 2016, additional shares were granted to compensate for the economic value of the capital repayment in that year.

3 At December 31, 2016, the fair value of each cash-settled share-based award was measured, using recent strategic plans, forecasts and a Monte Carlo Simulation model, based on the most recent available share price of KPN and its performance compared with peer companies at the moment of valuation (i.e. closing share prices as at December 31, 2016). At December 31, 2016, the fair value is EUR 2.01 (2015: EUR 2.74) for the 2014 share-based award, EUR 4.24 (2015: EUR 4.24) for the 2015 share-based award and EUR 2.52 for the 2016 share-based award.

4 At the end of 2016, KPN held the 6th position with respect to the 2014 share grant and at the end of 2015, KPN held the eighth position with respect to the 2013 share grant. This position and the outcomes of the other targets of this plan leads to 68.75% vesting in April 2017 of the 2014 share grant. Final TSR measurement for the 2014 share grant was conducted on February 15, 2017.

The fair value of each award at the grant date is determined using the following assumptions:

Amounts in millions of EUR	2016 PSP	2015 PSP	2015 Chief Commercial Officer
Risk-free interest rate based on euro government bonds for remaining time to maturity of 2.7 years	-0.1%	0.1%	0.1%
Expected dividend for KPN (based on one years' historical daily data preceding the date of award)	2.5%	2.3%	2.0%
Expected volatility (PSP grant based on 2.7 years' historical daily data) used for TSR	27.8%	36.7%	–
Share price at date of award (closing at grant date)	EUR 3.45	EUR 3.27	EUR 3.06

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The following chapters provide detail on the actual remuneration of the Board of Management and the Supervisory Board. Please refer to the Remuneration Report for the executive pay policy.

**Details of actual remuneration**

The remuneration of the current members of the Board of Management is set out below. This table represents the costs incurred by the company measured under IFRS principles.

Name	Year	Salary (EUR)	STI <sup>3</sup> (EUR)	LTI: Share awards <sup>1</sup> (EUR)	Pension costs <sup>2</sup> & social security (EUR)	Total (EUR)
E. Blok	2016	850,000	530,840	998,976	263,673	2,643,489
	2015	850,000	1,048,968	707,531	267,495	2,873,994
J.C. de Jager	2016	625,000	237,590	514,575	122,078	1,499,243
	2015	625,000	514,200	338,402	130,895	1,608,497
F.H.M. van der Post	2016	700,000	266,100	647,640	170,828	1,784,568
	2015 <sup>4</sup>	583,333	479,920	751,260	154,146	1,968,659
J.F.E. Farwerck	2016	575,000	239,400	454,324	139,475	1,408,199
	2015	575,000	473,053	329,510	141,795	1,519,358
Total current members	2016	2,750,000	1,273,930	2,615,515	696,054	7,335,499
	2015	2,633,333	2,516,141	2,126,703	694,331	7,970,508

<sup>1</sup> The amounts in the table represent the cost recognized for shares in 2016 and 2015 based on their fair values. The fair value per share of the 2016 grant was EUR 3.17. Please refer to the 'Long-Term Incentives' section in the Remuneration Report section for a further explanation. Under IFRS, the fair value of the share-based award is recorded as cost over the vesting period. The amount for Mr. Van der Post includes his long-term compensation in cash.

<sup>2</sup> In the pension costs, the costs for survivor's pension, disability coverage, administration as well as the gross allowances are included. The fixed gross allowance (for the base pay part above EUR 100,000) in 2016 was EUR 171,000 for Mr. Blok (2015: EUR 171,000), EUR 76,000 for Mr. De Jager (2015: EUR 76,000), EUR 119,000 for Mr. Van der Post (2015: EUR 99,800), and EUR 82,000 for Mr. Farwerck (2015: EUR 82,700).

<sup>3</sup> Actual STI relates to performance in the current year but paid out in the following financial year. Please refer to the 'Short-Term Incentives' section in the Remuneration Report section for the actual pay-out levels per target in 2016.

<sup>4</sup> Remuneration of Mr. Van der Post since his appointment as a Board member in March 2015.

The following table summarizes the shares/share-based awards granted to members of the Board of Management.

	Grant date	Current status <sup>5</sup>	Number of shares granted as of January 1, 2016	Number of shares/ share-based awards vested in 2016 <sup>1,4</sup>	Number of shares/ share-based awards granted or forfeited in <sup>1,2</sup> 2016	Number of shares/ share-based awards as of December 31, 2016	Total pre-tax fair value of shares on grant date (EUR) <sup>3</sup>	Pre-tax market value of shares on vesting date or end of lock-up in 2016 (EUR)		End of lock-up period
								361,297	361,297	
E. Blok	4/14/2016	Conditional	–	–	361,297	361,297	1,050,319	–	4/14/2021	
	4/16/2015	Conditional	347,454	–	31,424	378,878	1,104,904	–	4/16/2020	
	4/10/2014	Conditional	459,975	–	41,600	501,575	1,090,141	–	4/10/2019	
	4/12/2013	Conditional	156,693	–	-156,693	–	166,095	–	4/12/2018	
J.C. de Jager	4/14/2016	Conditional	–	–	177,106	177,106	514,862	–	4/14/2021	
	4/16/2015	Conditional	170,320	–	15,404	185,724	541,618	–	4/16/2020	
	9/26/2014	Conditional	225,478	–	20,393	245,871	534,383	–	4/10/2019	
F.H.M. van der Post	4/14/2016	Conditional	–	–	198,359	198,359	576,645	–	4/14/2021	
	4/16/2015	Conditional	190,759	–	17,253	208,012	606,614	–	4/16/2020	
	3/1/2015 <sup>6</sup>	Conditional	194,763	-48,691	13,211	159,283	566,177	169,289	N.a.	
J.F.E. Farwerck	4/14/2016	Conditional	–	–	162,938	162,938	473,674	–	4/14/2021	
	4/16/2015	Conditional	156,695	–	14,172	170,867	498,290	–	4/16/2020	
	4/10/2014	Conditional	207,440	–	18,761	226,201	491,633	–	4/10/2019	
	4/12/2013	Conditional	108,860	–	-108,860	–	115,392	–	4/12/2018	

<sup>1</sup> The shares granted to the members of the Board of Management represent 26% of the total number of shares and share-based awards granted in 2016 to all employees. On the grant date (April 14, 2016) the KPN share price quoted was EUR 3.45 (closing price) while the fair value of each granted share was EUR 3.17 for members of the Board of Management. In 2016, additional shares were granted to compensate for the economic value of the capital repayment in that year.

<sup>2</sup> The 2016 grant numbers do not include any deferred dividend during the vesting period. The deferred dividend during the vesting period will be additionally granted in shares.

<sup>3</sup> Value is calculated by multiplying the number of share awards by the fair value at grant date.

<sup>4</sup> Final TSR measurement for the 2013 share grant was conducted in February 2016. This did not lead to vesting of these shares in 2016.

<sup>5</sup> Shares in the vesting period or lock-up period are disclosed as conditional.

<sup>6</sup> Next to the vesting of shares in 2016, also EUR 148,750 vested of Mr. Van der Post's long-term cash compensation.

Read more in the 'Composition of the Boards' section in the Integrated Annual Report for stock ownership of members of the Board of Management and Supervisory Board.

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### Supervisory Board

The table below shows the actual fee received by each member of the Supervisory Board.

Amounts in EUR	Membership fee 2016	Committee fee 2016	2016 Total	2015 Total
D.W. Sickinghe	100,000	23,929	123,929	112,916
D.J. Haank	70,000	14,643	84,643	100,417
P.A.M. van Bommel	60,000	17,143	77,143	70,000
C.J. García Moreno Elizondo	60,000	10,000	70,000	70,000
C.J.G. Zuiderwijk	60,000	17,500	77,500	75,313
P.F. Hartman	60,000	20,357	80,357	53,125
J.C.M. Sap	60,000	10,000	70,000	49,583
J.B.M. Streppel <sup>1</sup>	–	–	–	35,730
C.M. Hooymans <sup>1</sup>	–	–	–	20,417
O. Von Hauske Solis <sup>1</sup>	–	–	–	70,181
Total	470,000	113,572	583,572	657,682

<sup>1</sup> Former member of the Supervisory Board.

### Share ownership relates to ordinary shares

In 2011, a share ownership recommendation was introduced whereby the members of the Board of Management are encouraged to acquire company shares equal to one times the annual fixed compensation for members of the Board of Management (excluding CEO) and two times the annual fixed compensation for the CEO. Retained vested shares as part of the LTI will be included in the share ownership recommendation.

### Accounting policy: Share-based compensation

KPN operates a number of share-based compensation plans, both equity- and cash-settled. For equity-settled plans, the fair value of shares granted to employees is measured at grant date. For cash-settled plans, the fair value of the liability for the awards granted is remeasured at each reporting date and at settlement. The costs of share-based compensation plans are determined based on the fair value of the shares and the number of shares expected to vest. On each Statement of Financial Position date, KPN determines whether it is necessary to revise the expectation of the number of shares that will vest. The fair value is recognized as Employee benefits in the Statement of Profit or Loss over the vesting period of the shares against an increase in equity in case of equity-settled share-based compensation plans and against recognition of a liability in case of cash-settled share-based compensation plans.

### [6] Other operating expenses

In 2016, Other operating expenses comprised, among others, an addition to the restructuring provision of EUR 45 million (2015: EUR 100 million). For more details read Note 24. Other operating expenses also comprised marketing and promotion expenses for an amount of EUR 90 million (2015: EUR 106 million).

### Auditor's fees

The fees listed below relate to the services provided to KPN and its consolidated group entities by Ernst & Young Accountants LLP, KPN's external auditor as of January 1, 2015, as referred to in Section 1(1) of the Dutch Accounting Firms Oversight Act ('Wet toezicht accountantsorganisaties' or 'Wta'), as well as by other Dutch and foreign-based EY individual partnerships and legal entities, including their tax services and advisory groups:

Amounts in millions of EUR	2016	2015
Financial statements audit fees	3.8	4.4
Other assurance fees	1.0	0.8
Tax fees	0.2	0.2
All other fees	–	0.1
<b>Total</b>	<b>5.0</b>	<b>5.5</b>

The total fees of Ernst & Young Accountants LLP, charged to KPN and its consolidated group entities amounted to EUR 4.8 million in 2016 (2015: EUR 5.2 million).

The financial statements audit fees include the aggregate fees incurred in 2016 and 2015 for professional services rendered for the audit of KPN's annual financial statements and the annual statutory financial statements of subsidiaries or services that are normally provided by the auditor in connection with the audits.

### Accounting policy: Operating expenses

KPN has divided its Operating expenses into Direct Cost (Cost of goods and services) and Indirect Cost (IT/TI, Personnel expenses and Other operating expenses).

› Cost of goods and services are costs incurred in the context of a sales transaction. These expenses include goods and services purchased from third parties, subscriber acquisition and retention costs and traffic expenses.

› IT/TI stands for Information Technology and Technical Infrastructure. IT expenses relate to KPN's IT environment (systems and networks), used, maintained and hosted by KPN. These expenses include licenses and maintenance expenses for both software and/or IT hardware when not directly related to a sales transaction. TI expenses are all expenses related to KPN's fixed and mobile networks that do not qualify for capitalization. These expenses include items such as network components, costs of repair and damages, transportation expenses for mechanics and expenses related to general purposes data centers etc.

The other assurance fees include the aggregate fees incurred for assurance and related services that are reasonably related to the performance of the audit or review of KPN's financial statements and are not reported under audit services. This includes revenue and IT-related assurance services and regulatory-related assurance services.

The tax fees and other fees incurred in 2016 and 2015 are permitted services under the Audit firms supervision act ('Wet toezicht accountantsorganisaties').

› Personnel expenses include all expenses related to KPN's workforce, both related to own employees and external personnel.

Other operating expenses are all remaining operating expenses and include expenses related to marketing and communication, billing and collection, housing and facilities.

Operating expenses are measured and recognized based on the accounting principles that are applied to related assets or liabilities and are allocated to the year in which they are incurred.

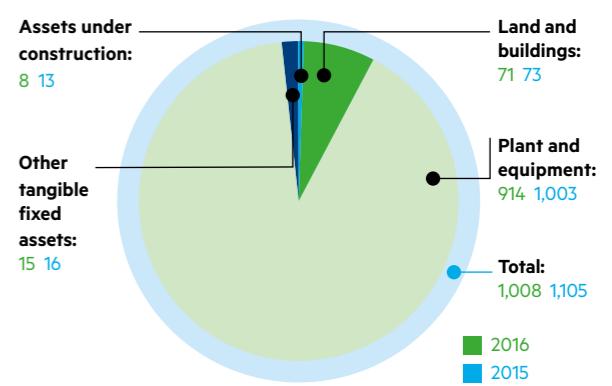
Subscriber acquisition and retention costs are expensed as incurred. The most common subscriber acquisition costs are cost for handsets and dealer fees. The cost of a handset is expensed when the handset is sold. The sale can be an individual sale or a component of a multiple deliverable arrangement containing for example the sale of a handset combined with a subscription. In both cases, the handset is expensed when the costs are incurred.

### [7] Depreciation, amortization and impairments

Amounts in millions of EUR	2016	2015
Amortization of Intangible assets	486	500
Impairments of Intangible assets [11]	51	11
<b>Total amortization and impairments of Intangible assets</b>	<b>537</b>	<b>511</b>
Depreciation of Property, plant and equipment	984	1,059
Impairments and retirements of Property, plant and equipment	24	46
<b>Total depreciation and impairments of Property, plant and equipment</b>	<b>1,008</b>	<b>1,105</b>
<b>Total</b>	<b>1,545</b>	<b>1,616</b>

### Depreciation and impairments on Property, plant and equipment

Amounts in millions of EUR



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### [8] Financial income and expenses

Amounts in millions of EUR	2016	2015
<b>Finance income</b>	<b>112</b>	<b>150</b>
Interest on borrowings	-402	-483
Interest on provisions for retirement benefit obligations [23]	-7	-9
Interest on other provisions	-10	-1
Tender premium	-222	-
Other	-	-14
<b>Finance costs</b>	<b>-641</b>	<b>-507</b>
Book gain sale Telefónica Deutschland shares	-	184
Amortizable part of hedge reserve [20]	-10	-11
Amortization discontinued fair value hedges	114	41
Derivative financial instruments not qualified for hedge accounting	-28	-8
Exchange rate differences	-2	-1
Other	38	47
<b>Other financial results</b>	<b>112</b>	<b>252</b>
<b>Total</b>	<b>-417</b>	<b>-105</b>

[..] Bracketed numbers refer to the related Notes.

Finance income in 2016 included a dividend received from Telefónica Deutschland of EUR 110 million (2015: EUR 146 million).

In 2016, interest on borrowings decreased by EUR 81 million, which was mainly related to a lower gross debt position. Interest on borrowings included a non-cash amount of EUR 17 million in 2016 (2015: EUR 14 million) relating to debt issue costs and similar costs, which are amortized over the remaining life of the respective bonds using the effective interest rate method.

In September 2016, KPN completed a tender offer, in which KPN repurchased an aggregate principal amount of EUR 1.0 billion across five eurobonds with maturities between 2017 and 2024. The bond tender resulted in a EUR 160 million loss in 2016. This consisted of tender premiums of EUR 222 million and EUR 4 million of accelerated amortization (included in

Finance costs), partly offset by a EUR 66 million gain from discontinued fair value hedges on the repurchased bonds (included in Other financial results).

In 2015, KPN recorded a EUR 184 million book gain on the sale of part of its stake in Telefónica Deutschland. Read more in Note 27.

Since May 2015, KPN holds all interest swaps at fair value through profit or loss, which resulted in a EUR 28 million loss in 2016 (2015: EUR 8 million loss). Read more in Note 26.

In 2016, line item Other in Other financial results included a gain of EUR 29 million from the sale of KPN's stake in Jasper Wireless. In 2015, line item Other in Other financial results included a gain due to revaluation of the option to acquire the remaining stake of 87.5% in GroupIT B.V. Read more in Note 28.

### [9] Taxation

#### The Netherlands

KPN qualifies as an innovative company and concluded a renewed agreement with the Dutch tax authorities with respect to the application of the Dutch innovation box tax regime. The innovation box tax regime is a facility under Dutch corporate income tax law whereby profits attributable to innovation are taxed at an effective rate of 5%. The application of the innovation box resulted in a benefit of EUR 17 million over 2016 (2015: EUR 9 million).

The tax book loss of approximately EUR 5 billion, which is recognized as a result of the sale of E-Plus, offsets KPN's taxable income in the Netherlands in the current and coming years. Dividends, not qualifying as specific capital repayments, received and/or capital gains realized (proceeds above tax bookvalue) on KPN's shareholding in Telefónica Deutschland are subject to Dutch corporate income tax.

In 2016, the net deferred tax asset (DTA) of the Dutch fiscal unity with regard to the book loss on the sale of E-Plus is as follows:

	Net DTA	Net Loss
December 31, 2014	1,113	4,454
<b>Movement 2015</b>	<b>-202</b>	<b>-810</b>
December 31, 2015	911	3,644
<b>Movement 2016</b>	<b>-7</b>	<b>113</b>
December 31, 2016	904	3,757

The net DTA with regard to the book loss on the sale of E-Plus of EUR 904 million (2015: EUR 911 million) is partly realized for EUR 470 million (2015: EUR 518 million), partly unrealized for EUR 501 million (2015: EUR 500 million) and is offset by a deferred tax liability (DTL) recapture of EUR 67 million (2015: EUR 107 million)

The Reggefiber Group mainly consists of one fiscal unity separate from KPN's Dutch fiscal unity and has pre-fiscal unity tax losses carry forward. At December 31, 2016, a DTA of EUR 72 million (2015: EUR 81 million) was recorded, of which EUR 36 million (2015: EUR 45 million) relates to recognized tax losses carry forward.

Please read more in Note 29 for the impact of the acquisitions of GNA, Dekatel and InternedServices Group.

There are several other relatively small entities in the Netherlands which are separately liable for income taxes for which no loss carry forward is available. In most other countries in which KPN is present, tax loss carry forward is available and therefore no income tax is payable except when minimum taxation rules are applicable.

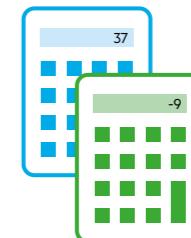
In 2015, an agreement was reached with the Dutch tax authorities on a tax-deductible loss with regard to the proposed liquidation of part of the UK structure. Based on this, a deferred tax asset (DTA) was recorded of EUR 35 million relating to the liquidation. Also in 2015, a DTA was recorded of EUR 17 million for the proposed liquidation of an entity in France. In 2016 the UK liquidation has been realized.

#### Belgium discontinued operations

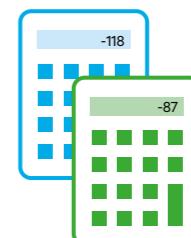
The sale of BASE Company was completed in 2016. At December 31, 2015 for BASE Company, the deferred tax positions were part of the disposal group held for sale, of which EUR 39 million relates to available tax loss carry forward.

#### Income tax expense

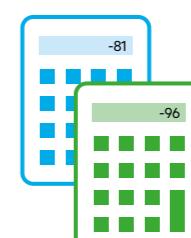
Amounts in millions of EUR



Current tax



Charges in deferred taxes



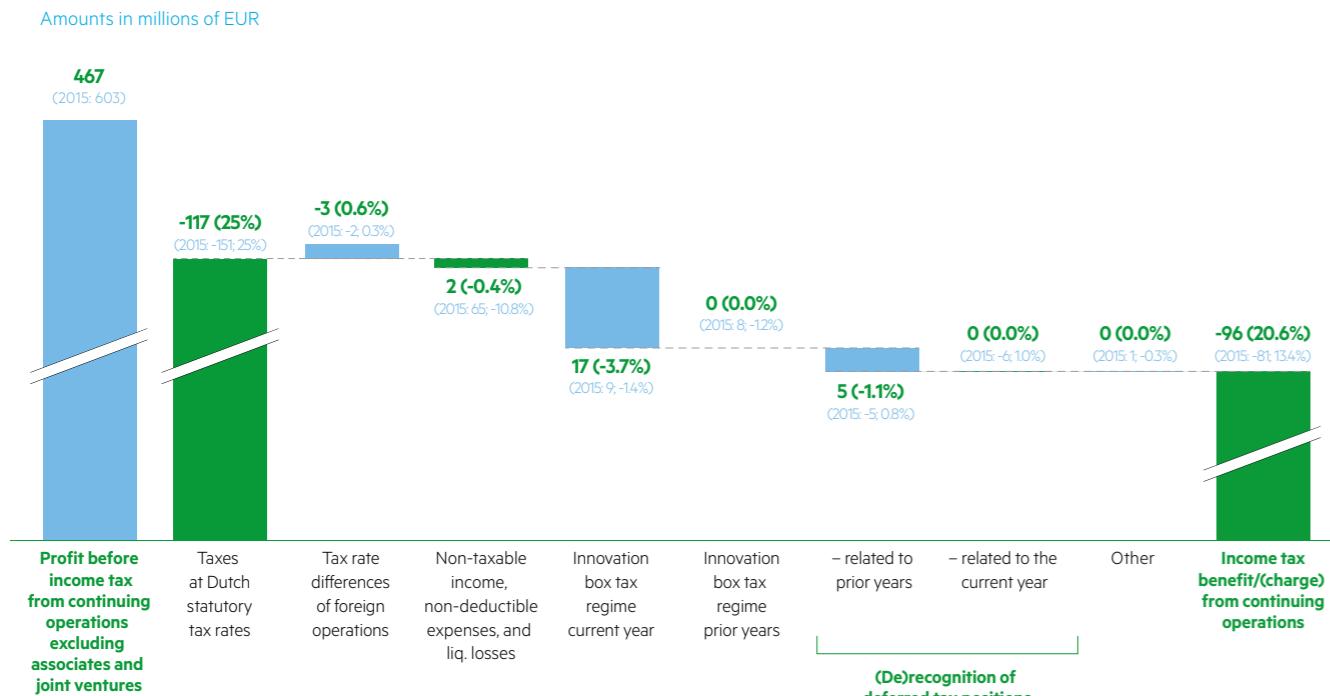
Income tax (charge)/benefit from continuing operations

2016  
2015

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## Notes to the Consolidated Statement of Financial Position

The reconciliation from the Dutch statutory tax of 25% (2015: 25%) to the effective tax rate of 20.6% (2015: 13.4%) is explained in the table below.



In 2016, the effective tax rate was lower than the Dutch statutory tax rate mainly due to the Dutch innovation box tax regime.

### Summary of deferred tax positions:

	December 31, 2016	December 31, 2015
<b>Amounts in millions of EUR</b>		
<b>Deferred tax assets</b>	<b>1,091</b>	<b>1,069</b>
– of which: to be recovered after 12 months	974	939
– of which: to be recovered within 12 months	117	130
<b>Deferred tax liabilities</b>	<b>-</b>	<b>47</b>
– of which: to be realized after 12 months	-	44
– of which: to be realized within 12 months	-	3
<b>Deferred tax assets and liabilities</b>	<b>1,091</b>	<b>1,022</b>

Depending on future taxable results, a part of deferred tax assets relating to tax loss carry forward now considered to be recoverable after 12 months may be recoverable in the short term, whereas tax loss carry forward now considered to be recoverable within 12 months may be recoverable in the long term.

### Deferred tax positions:

#### Deferred tax assets

Amounts in millions of EUR (restated)	Tax loss & other carry forwards	Unrealized liquidation losses <sup>4</sup>	Bonds & hedges <sup>2</sup>	Restriction on depreciation	Fiscal goodwill	Other <sup>1</sup>	Offset against deferred tax liabilities	Total
<b>Balance as of December 31, 2014</b>	<b>838</b>	<b>500</b>	<b>127</b>	<b>215</b>	<b>56</b>	<b>145</b>	<b>-558</b>	<b>1,323</b>
Exchange differences	3	-	-	-	-	-	-	3
Income statement benefit/(charge)	-	52	-41	-27	2	9	56	51
Transfer to current tax	-184	-	-	-	-	-	-	-184
Tax charged to OCI <sup>2</sup>	-	-	-41	-	-	2	-	-39
Transferred to held for sale	-61	-	-	-	-	-24	-	-85
<b>Balance as of December 31, 2015</b>	<b>596</b>	<b>552</b>	<b>45</b>	<b>188</b>	<b>58</b>	<b>132</b>	<b>-502</b>	<b>1,069</b>
Income statement benefit/(charge)	64	-34	102	-28	-10	-54	47	87
Changes in consolidation	3	-	-	-	-	-	-	3
Transfer to current tax <sup>3</sup>	-124	-	-	-	-	-	-	-124
Tax charged to OCI <sup>2</sup>	-	-	29	-	-	1	-	30
Reclassification	26	-	-	-	-	-	-	26
<b>Balance as of December 31, 2016</b>	<b>565</b>	<b>518</b>	<b>176</b>	<b>160</b>	<b>48</b>	<b>79</b>	<b>-455</b>	<b>1,091</b>

1 Other deductible temporary differences at December 31, 2016 include revenue recognition of EUR 15 million (2015: EUR 16 million).

2 Tax charged to OCI relates mainly to the hedge reserve. In 2016, the total DTA mainly increased due to future deductible cost relating to the tender premium.

3 The decrease is the result of the offset of taxable income against available fiscal losses.

4 Addition 2015 due to liquidation losses UK and France. The UK loss was realized in 2016.

#### Deferred tax liabilities

Amounts in millions of EUR (restated)	Software development	DTL recapture <sup>2</sup>	Accelerated depreciation <sup>1</sup>	Goodwill depreciation	PPA <sup>4</sup>	Other <sup>3</sup>	Offset against deferred tax assets	Total
<b>Balance as of December 31, 2014</b>	<b>203</b>	<b>78</b>	<b>172</b>	<b>35</b>	<b>57</b>	<b>65</b>	<b>-558</b>	<b>52</b>
Income statement (benefit)/charge	-20	-9	-51	11	-5	-9	56	-27
Changes in consolidation	-	-	-	-	-	8	-	8
Tax charged to Equity	-	-	-	-	-	-16	-	-16
Transfer to current tax	-	-7	-	-	-	-	-	-7
Tax charged to OCI	-	45	-	-	-	-	-	45
Transferred to held for sale	-	-	-	-	-	-8	-	-8
<b>Balance as of December 31, 2015</b>	<b>183</b>	<b>107</b>	<b>121</b>	<b>46</b>	<b>52</b>	<b>40</b>	<b>-502</b>	<b>47</b>
Income statement (benefit)/charge	-16	27	-59	16	-5	25	47	35
Changes in consolidation	-	-	-	-	-	4	-	4
Tax charged to Equity	-	-	-	-	-	-17	-	-17
Tax charged to OCI	-	-95	-	-	-	-	-	-95
Reclassification	-3	28	-	-	3	-2	-	26
<b>Balance as of December 31, 2016</b>	<b>164</b>	<b>67</b>	<b>62</b>	<b>62</b>	<b>50</b>	<b>50</b>	<b>-455</b>	<b>-</b>

1 Relates to property, plant and equipment in the Netherlands.

2 This relates to the unrealized capital gains on the stake in Telefónica Deutschland which are considered taxable in the Netherlands (recapture rule).

3 Other temporary differences at December 31, 2016 include bonds and hedges of EUR 26 million (2015: EUR 11 million).

4 PPA is Purchase price allocations and mainly relates to the recognition of customer bases.

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### Tax loss carry forward

Amounts in millions of EUR	December 31, 2016			December 31, 2015		
	Tax loss carry forward	Maximum deferred tax asset	Recognized deferred tax asset <sup>2</sup>	Tax loss carry forward	Maximum deferred tax asset	Recognized deferred tax asset <sup>2</sup>
Koninklijke KPN – corporate tax <sup>1</sup>	2,026	507	507	2,114	528	528
Other	258	72	58	306	85	68
<b>Total continuing operations</b>	<b>2,284</b>	<b>579</b>	<b>565</b>	<b>2,420</b>	<b>613</b>	<b>596</b>
BASE Company – corporate tax	-	-	-	115	39	39
<b>Total KPN Group</b>	<b>2,284</b>	<b>579</b>	<b>565</b>	<b>2,535</b>	<b>652</b>	<b>635</b>

1 Part of the tax loss carry forward are pre-consolidation losses ('voorvoegingsverliezen') limited in their use, as such losses may only be compensated by taxable income generated by the specific company itself. Part of the tax book loss which is recognized as a result of the sale of E-Plus to Telefónica Deutschland is included in this amount. This total tax book loss amounts to EUR 4 billion, of which EUR 2 billion is recorded in the DTA for Tax loss carry forward and EUR 2 billion is recorded in the DTA for unrealized liquidation losses. The offset of losses with future profits (carry forward) is limited to 9 years.

2 The tax loss carry forward for Germany has been removed due to the intended liquidation of the legal structure.

The expiration of the available tax loss carry forward and recognized tax assets at December 31, is as follows:

Amounts in millions of EUR	December 31, 2016			December 31, 2015		
	Tax loss carry forward	Maximum deferred tax asset	Recognized deferred tax asset	Tax loss carry forward	Maximum deferred tax asset	Recognized deferred tax asset
2016	n.a.	n.a.	n.a.	2	-	-
2017	-	-	-	13	3	3
2018	2	-	-	1	-	-
2019	5	1	1	27	7	7
2020	21	5	5	50	13	12
2021	22	5	5	N.a.	N.a.	N.a.
Later	2,233	568	554	2,311	586	574
Unlimited	1	-	-	16	4	-
<b>Total Group</b>	<b>2,284</b>	<b>579</b>	<b>565</b>	<b>2,420</b>	<b>613</b>	<b>596</b>
Discontinued operations unlimited	-	-	-	115	39	39
<b>Total KPN Group</b>	<b>2,284</b>	<b>579</b>	<b>565</b>	<b>2,535</b>	<b>652</b>	<b>635</b>

### Accounting policy: Taxation

#### Current income tax

The current corporate income tax charge recognized in the Statement of Profit or Loss is calculated in accordance with the prevailing tax regulations and rates, taking into account non-taxable income and non-deductible expenses. The current income tax expense reflects the amount for the current reporting period that KPN expects to recover from or pay to the tax authorities. Current income tax related to items recognized directly in equity is recorded in equity and not in the Statement of Profit or Loss. KPN's management periodically evaluates positions taken in the tax returns regarding situations in which applicable tax regulations are subject to interpretation and establishes provisions when deemed appropriate.

#### Deferred income taxes

Deferred income tax positions are recognized for temporary differences between the tax basis of assets and liabilities and their carrying values in KPN's Statement of Financial Position.

Deferred tax assets are recognized for deductible temporary differences, the carry forward of unused tax credits and any unused tax losses. Deferred tax assets are recognized only to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilized. Both the recognized and unrecognized deferred tax assets are reassessed on each reporting date based on available projections. If future taxable profits are insufficiently available, derecognition may become inevitable unless certain exceptions can be applied. No deferred tax assets are recognized for deductible temporary differences that arise from the initial recognition of an asset or liability in a transaction that is not a business combination and,

at the time of the transaction, affects neither the profit or loss reported in the Statement of Profit or Loss nor the taxable profit or loss. Deferred tax assets are recorded for deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures and are recorded only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

Deferred tax liabilities are recognized for all taxable temporary differences except when they arise from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the profit or loss reported in the Statement of Profit or Loss nor the taxable profit or loss. Also, no deferred tax liabilities are recorded for taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax positions are stated at nominal value and are measured at the corporate income tax rates KPN expects to be applicable in the year when the asset is realized or liability is settled based on enacted or substantially enacted tax laws.

Deferred income tax assets and liabilities are netted if there is a legally enforceable right to set off deferred income tax assets against deferred income tax liabilities and relate to income taxes levied by the same taxation authority on the same taxable entity and there is an intention to settle on a net basis.

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**[10] Earnings per share**

The following table shows the calculation of the basic and diluted earnings per share attributable to equity holders based on the profit attributable to equity holders, the average number of subscribed ordinary shares and the calculated weighted average number of subscribed ordinary shares divided by the weighted average number of subscribed ordinary shares taking into account the dilution effects:

	2016	2015
<b>Profit for the year from continuing operations</b>	370	524
<b>Profit for the year from discontinued operations</b>	430	135
 <b>Profit for the year</b>	<b>800</b>	<b>659</b>
Profit attributable to non-controlling interests [20]	-7	-21
Deduction for perpetual capital securities	-51	-51
<b>Adjusted profit (loss) attributable to ordinary shareholders of the company</b>	<b>742</b>	<b>587</b>
 <b>Weighted average number of subscribed ordinary shares outstanding</b>	<b>4,259,762,228</b>	<b>4,258,608,802</b>
 Dilution effects:		
- options and non-vested shares	3,581,632	4,135,263
 <b>Weighted average number of subscribed ordinary shares outstanding including dilution effects</b>	<b>4,263,343,860</b>	<b>4,262,744,065</b>

[..] Bracketed numbers refer to the related Notes.

**Basic continuing operations**

€ **0.07**  
2015: 0.11

**Basic discontinued operations**

€ **0.10**  
2015: 0.03

**Basic total, including discontinued**

€ **0.17**  
2015: 0.14

**Diluted continuing operations**

€ **0.07**  
2015: 0.11

**Diluted discontinued operations**

€ **0.10**  
2015: 0.03

**Diluted total, including discontinued**

€ **0.17**  
2015: 0.14

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. Share options and non-vested shares are regarded to have potential dilutive effects on the ordinary shares. For the share options and share plans, a calculation is made in order to determine the number of shares that could have been acquired at fair value based on the monetary value of the subscription rights attached to outstanding share options.

The profit attributable to equity holders used for calculations on a diluted basis is equal to the profit attributable to equity holders used for calculations on a non-diluted basis.

Coupons on the perpetual capital securities are deducted from the profit attributable to equity holders, since the perpetual hybrid bonds represent equity but do not constitute profit attributable to ordinary holders.

In the total basic earnings per share EUR 0.02 (2015: EUR 0.02) tax expense is included.

**[11] Intangible fixed assets**

	December 31, 2016	December 31, 2015
Goodwill	1,428	1,428
Licenses	1,037	1,180
Software	519	556
Other intangibles <sup>1</sup>	266	286
<b>Total intangible assets</b>	<b>3,250</b>	<b>3,450</b>

<sup>1</sup> Other intangibles mainly relate to customer relationships and trade names.

**Goodwill**

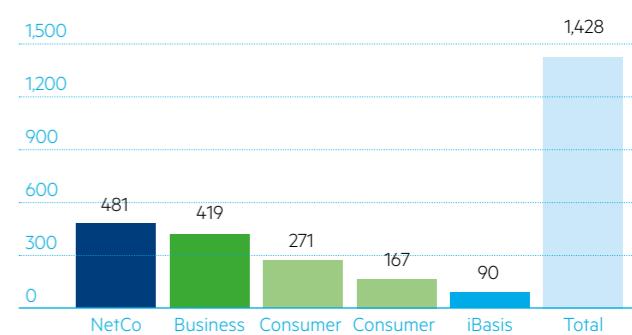
As per January 1, 2016, KPN adjusted its internal organizational structure (read more in Note 3). As a consequence, KPN's cash generating units (CGUs) revised. Before 2016, KPN's CGUs were deemed equal to KPN's operating segments.

As per January 1, 2016, the elimination of internal revenues changed 'Network, Operations & IT' (former NetCo) into a cost center. Consumer and Business operations moved from Consumer and Business segments to 'Network, Operations & IT'. Former Consumer Residential and Consumer Mobile merged into the new 'Consumer' segment. Wholesale (Mobile and Fixed) separated from Consumer Mobile and NetCo. This resulted in the following (new) CGUs: Business, Consumer, Wholesale and iBasis.

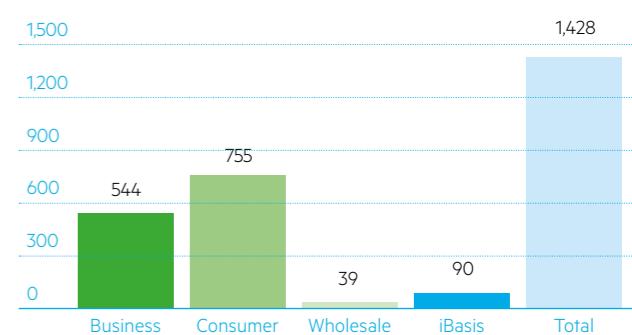
Goodwill of KPN the Netherlands was reallocated to the new CGUs applying the Relative Value Approach, whereas particularly the asset intensity of the subject CGUs was taken into account. For the reallocation of the goodwill, see figure 'Goodwill reallocated to new CGUs January 1, 2016'.

**Goodwill CGUs December 31, 2015**

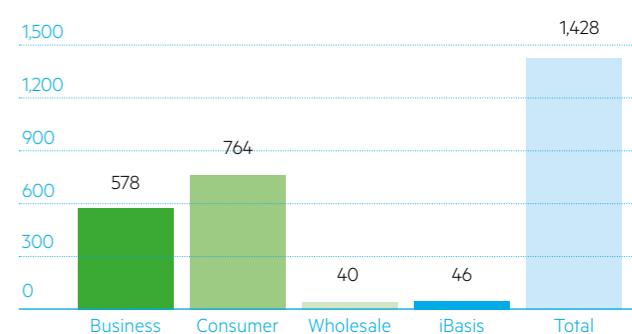
Amounts in millions of EUR

**Goodwill reallocated to new CGUs January 1, 2016**

Amounts in millions of EUR

**Goodwill CGUs December 31, 2016**

Amounts in millions of EUR



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### Statement of changes in goodwill

Amounts in millions of EUR	2016	2015
Cost	2,191	2,217
Accumulated impairments	-763	-763
<b>Balance as of January 1</b>	<b>1,428</b>	<b>1,454</b>
Investments <sup>1</sup>	38	65
Impairment <sup>2</sup>	-45	-
Exchange rate differences	1	4
Subsequent purchase price adjustments	6	-
Transferred to held for sale <sup>3</sup>	-	-95
<b>Closing net book value</b>	<b>1,428</b>	<b>1,428</b>
Cost	2,237	2,191
Accumulated impairments	-809	-763
<b>Balance as of December 31</b>	<b>1,428</b>	<b>1,428</b>

<sup>1</sup> 2016 investments mainly relate to the purchase price allocation of Dekatel Nederland B.V. (EUR 22 million), Glasvezelnet Amsterdam (EUR 11 million) and RedBee and FortyTwo (EUR 5 million). 2015 investments mainly related to Internetservices Group (EUR 63 million). For more details, read Note 29.

<sup>2</sup> Impairment of EUR 45 million related to iBasis.

<sup>3</sup> 2015 related to BASE Company classified as disposal group held for sale.

### iBasis

Following changing market dynamics affecting iBasis in the first half of 2016, an impairment test was performed. KPN based the recoverable amount on the value-in-use of the cash-generating unit iBasis, which was determined by using the discounted cash flow method. The assumptions used to determine the projected cash flows were updated to reflect the changing market dynamics. The individual assumptions remained within the ranges as disclosed in Note 11 of KPN's Integrated Annual Report 2015. Nonetheless, the shift of all combined key assumptions within these ranges resulted in a decrease of the discounted cash flows expected to be generated by iBasis. Therefore, KPN recognized an impairment of EUR 45 million against goodwill carried for iBasis in the first half of 2016.

### Goodwill impairment tests

KPN performed its annual impairment test as at December 31. KPN considers the relationship between its market capitalization and its book value, among other factors, when reviewing for indicators of impairment. As at December 31, 2016, the market capitalization of KPN was significantly higher than the book value of its equity, indicating no potential impairment of goodwill or assets.

A detailed review has been performed of the recoverable amount of each cash-generating unit. For all cash-generating units, the recoverable amount is based on their value-in-use, which was determined by using the discounted cash flow method.

Key assumptions used in the cash flow projections are estimated EBITDA, estimated capital expenditures, estimated change in working capital and pre-tax weighted average cost of capital (WACC) used for discounting the cash flow projections. The cash flow projections for the first five years are management's best estimate based on the most recent business plans, historical growth rates and EBITDA margins. For goodwill impairment purposes, cash flow projections and the carrying amount of both cost centers NOI and Netherlands' Other segments based on periodic management analysis have been allocated to the new CGUs. KPN believes the period used in the projections to be a suitable timescale for reviewing and considering the annual performance before applying a fixed terminal value multiple to the final year cash flows of the detailed projection.

The WACC is calculated using a Capital Asset Pricing Model, with input factors based on peer group information and other observable market data.

For all four cash-generating units, the annual impairment test in 2016 resulted in positive headroom as at December 31, 2016.

### Key long-term assumptions

Assumptions used in the impairment test as at December 31, 2016 are summarized in the table below.

	Terminal sales growth	Capex intensity	EBITDA margin	Discount rate
Consumer 2016 <sup>1</sup>	0%	12% – 20%	42% – 50%	7.5% – 8.5%
Business 2016 <sup>1</sup>	0%	10% – 14%	32% – 37%	7.5% – 8.5%
Wholesale 2016 <sup>1</sup>	0%	27% – 35%	66% – 71%	7.5% – 8.5%
iBasis 2016	0%	0% – 2%	2% – 4%	10% – 12%
iBasis 2015	0%	0% – 1%	1% – 3%	8% – 10%

<sup>1</sup> As per January 1, 2016, KPN adjusted its internal organizational structure and the internal revenues have been eliminated (read more in Note 3). As a consequence, the CGU structure for the Netherlands was revised and therefore the assumptions used in the impairment test as at December 31, 2015 are not disclosed in this table. For more information about the assumptions used as at December 31, 2015, read more in KPN's Integrated Annual Report 2015.

### Sensitivity to changes in key assumptions

The expected future cash flows used in the impairment analysis are based on management's estimates. Events among others in technology and telecommunications markets as well as the financial markets and the overall economy may have an impact on the estimated future cash flows of KPN's businesses. Since the headroom of the Dutch cash-generating units is more than sufficient, no sensitivity analysis is disclosed for these cash-generating units. A reasonable possible change in the assumptions would not result in an impairment.

The following table gives an indication of value change of iBasis as at the end of 2016:

Amounts in millions of EUR	Value change iBasis -0.5pps	Value change iBasis +0.5pps
Terminal sales growth	(3) – (4)	3 – 4
Capex intensity	15 – 16	(15) – (16)
EBITDA margin	(15) – (16)	15 – 16
Discount rate	4 – 6	(4) – (6)

Considering the margin of approximately EUR 30 million between the recoverable amount (approximately EUR 100 million) and the carrying amount of iBasis, negative sensitivities as included in this table will decrease the available headroom. However, a negative sensitivity for an individual assumption will not result in an impairment.

### Accounting policy: Goodwill

The excess of the consideration transferred over the fair value of the identifiable net assets acquired in a business combination is recorded as goodwill. Goodwill on acquisitions of subsidiaries is included in intangible assets. Goodwill on acquisition of associates and joint ventures is included in investments in associates and joint ventures.

Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the synergies of the business combination in which the goodwill arose, irrespective of whether other assets or liabilities of the acquiree are assigned to those cash-generating units. Goodwill is carried at cost less accumulated impairment losses and tested for impairment annually or whenever KPN has an indication that the goodwill may be impaired. Goodwill is impaired if the recoverable amount of the cash-generating unit or groups of cash-generating units to which it is allocated is lower than the book value of the cash-generating unit or groups of cash-generating units concerned. The recoverable amount is defined as the higher of the fair value less costs of disposal and the value in use of the cash-generating units concerned. Following the restrictions of IFRS, impairment losses on goodwill are not reversed.

In case of disposal of a business which was part of a cash-generating unit, goodwill is allocated to that business on a relative value basis and included in the carrying amount of the business when determining the result on the sale.

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### Statement of changes in intangible fixed assets with finite lives

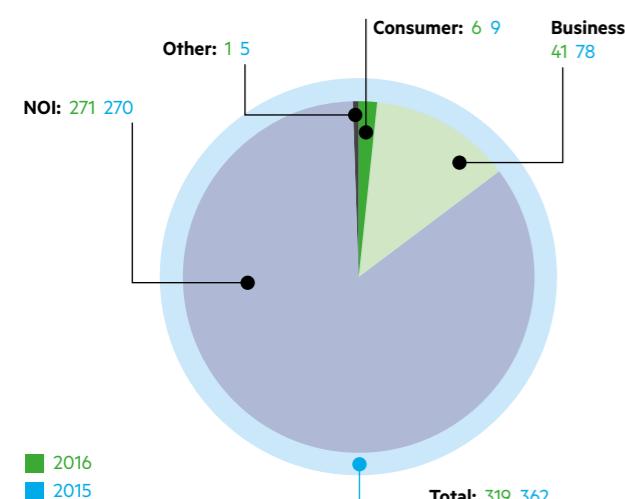
Amounts in millions of EUR	Licenses	Computer software	Software in development	Customer relationships	Trade names	Other	Total
<b>Balance as of January 1, 2015</b>	<b>1,564</b>	<b>579</b>	<b>96</b>	<b>260</b>	<b>24</b>	<b>15</b>	<b>2,538</b>
Investments	—	268	25	—	—	—	293
Change in consolidation <sup>1</sup>	—	1	—	30	—	—	31
Reclassification	—	-2	-2	—	—	—	-4
Amortization	-154	-328	—	-30	-4	-4	-520
Impairments	—	-8	-1	—	-1	-1	-11
Exchange rate differences	—	—	—	—	1	—	1
Transferred to held for sale (net) <sup>2</sup>	-230	-47	-25	—	-2	-2	-306
<b>Closing net book value</b>	<b>1,180</b>	<b>463</b>	<b>93</b>	<b>260</b>	<b>18</b>	<b>8</b>	<b>2,022</b>
Cost	2,083	1,049	93	359	60	53	3,697
Accumulated amortization/impairments	-903	-586	—	-99	-42	-45	-1,675
<b>Balance as of December 31, 2015</b>	<b>1,180</b>	<b>463</b>	<b>93</b>	<b>260</b>	<b>18</b>	<b>8</b>	<b>2,022</b>
Investments	—	326	-50	—	—	—	276
Change in consolidation <sup>1</sup>	—	—	—	16	—	—	16
Amortization	-143	-307	—	-29	-4	-3	-486
Impairments	—	-5	-1	—	—	—	-6
<b>Closing net book value</b>	<b>1,037</b>	<b>477</b>	<b>42</b>	<b>247</b>	<b>14</b>	<b>5</b>	<b>1,822</b>
Cost	2,083	1,021	42	351	61	12	3,570
Accumulated amortization/impairments	-1,046	-544	—	-104	-47	-7	-1,748
<b>Balance as of December 31, 2016</b>	<b>1,037</b>	<b>477</b>	<b>42</b>	<b>247</b>	<b>14</b>	<b>5</b>	<b>1,822</b>

1 The change in consolidation in 2016 of EUR 15 million includes the customer base of Dekatel (2015: EUR 30 million mainly related to the customer base of Internedservices Group).

2 Transferred to held for sale relates to BASE Company classified as disposal group held for sale.

### Investments in intangible fixed assets per segment

Amounts in millions of EUR



### Accounting policy: Intangible fixed assets

#### Licenses

Licenses are valued at cost less amortization and impairment. The cost value of a qualifying asset may include capitalized borrowing costs related to qualifying assets incurred during the construction phase of the related asset. Amortization is calculated using the straight-line method over the economic useful life and commences at the date that services can be offered (available for use). The amortization period for licenses equals the useful life, but is limited to the expiration date of the licenses. Licenses are reviewed for impairment whenever events or changes in circumstances indicate that the book value of the asset concerned may not be recoverable. An impairment loss is recognized for the amount by which the book value of the licenses exceeds its recoverable amount. The recoverable amount is defined as the higher of an asset's fair value less costs of disposal and its value in use. Impairments are reversed if and to the extent that the impairment no longer exists.

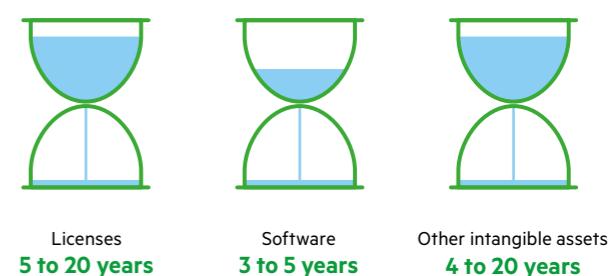
of an asset's fair value less costs of disposal and its value in use. Impairments are reversed if and to the extent that the impairment no longer exists.

#### Software

Internally developed and acquired software, not being an integral part of property, plant and equipment, is capitalized on the basis of the costs incurred, which include direct costs and directly attributable overhead costs incurred. During the development phase, interest expenses incurred are capitalized as part of qualifying assets if material. Software is amortized over the estimated useful life. Amortization commences when software is available for use.

Intangible fixed assets not yet available for use are tested annually for impairment or whenever KPN has an indication that the intangible fixed assets may be impaired. For example, licenses are tested as part of a cash-generating unit as licenses do not generate independent cash flows.

The amortization period of the intangible assets are as follows:



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**[12] Property, plant and equipment****Statement of changes in property, plant and equipment**

Amounts in millions of EUR	Land and buildings	Plant and equipment	Other tangible non-current assets	Assets under construction	Total
<b>Balance as of January 1, 2015</b>	<b>569</b>	<b>5,704</b>	<b>58</b>	<b>275</b>	<b>6,606</b>
Investments	35	997	21	-19	1,034
Disposals	-2	-16	-	-	-18
Depreciation	-69	-997	-19	-	-1,085
Impairments and retirements	-4	-28	-1	-14	-47
Other	-	12	-	-2	10
Transferred to held for sale (net) <sup>2</sup>	-4	-442	-21	-32	-499
<b>Closing net book value</b>	<b>525</b>	<b>5,230</b>	<b>38</b>	<b>208</b>	<b>6,001</b>
Cost	1,919	9,884	136	208	12,147
Accumulated depreciation/impairments	-1,394	-4,654	-98	-	-6,146
<b>Balance as of December 31, 2015</b>	<b>525</b>	<b>5,230</b>	<b>38</b>	<b>208</b>	<b>6,001</b>
Investments	40	861	13	11	925
Disposals	-7	-	-	-	-7
Depreciation	-67	-902	-15	-	-984
Impairments and retirements	-4	-12	-	-8	-24
Other	2	1	-5	-	-2
Change in consolidation <sup>1</sup>	-	60	-	-	60
<b>Closing net book value</b>	<b>489</b>	<b>5,238</b>	<b>31</b>	<b>211</b>	<b>5,969</b>
Cost	1,866	9,553	89	211	11,719
Accumulated depreciation/impairments	-1,377	-4,315	-58	-	-5,750
<b>Balance as of December 31, 2016</b>	<b>489</b>	<b>5,238</b>	<b>31</b>	<b>211</b>	<b>5,969</b>

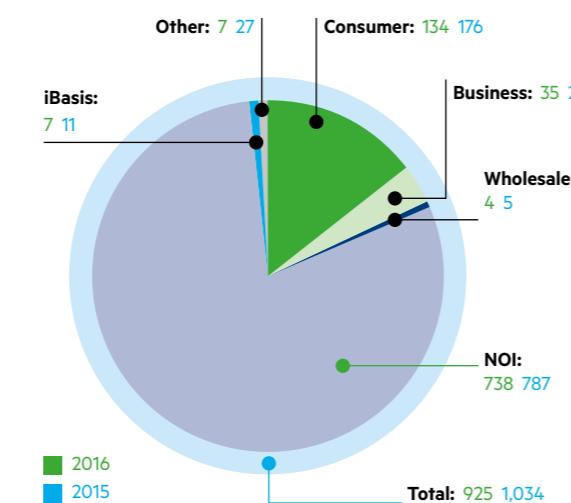
1. 2016: Relates to fiber network as a consequence of the consolidation of Glasvezelnet Amsterdam B.V. as per January 1, 2016.

2. Relates to BASE Company classified as held for sale as of April 15, 2015.

The book value of property, plant and equipment of which KPN as the lessee is the beneficial owner under financial lease programs amounted to EUR 32 million (2015: EUR 75 million). The book value of property, plant and equipment of which KPN is the lessor under operating lease programs amounted to EUR 174 million (2015: EUR 176 million). The non-cancellable future minimum lease payments receivable related to these operating leases for 2017 are EUR 2 million (2015: EUR 2 million), which matures within one month.

**Investments in property, plant and equipment**

Amounts in millions of EUR

**Sensitivity analysis**

At the end of 2016, the book value for copper and fiber cables is EUR 1,818 million, which is included in plant and equipment. The current depreciation rates for these investments are based on estimates and judgment about the useful lives of these assets.

For copper cables, KPN estimates that the remaining useful life of investments is 10 years. The depreciation charge for

2016 amounted to EUR 151 million. If the useful life was set at 20 years, for example due to technological developments, the depreciation charge for 2016 would be EUR 68 million.

For fiber cables, KPN estimates that the remaining useful life of investments is 30 years. The depreciation charge for 2016 amounted to EUR 53 million. If the useful life was set at 40 years, for example due to technological developments, the depreciation charge for 2016 would be EUR 35 million.

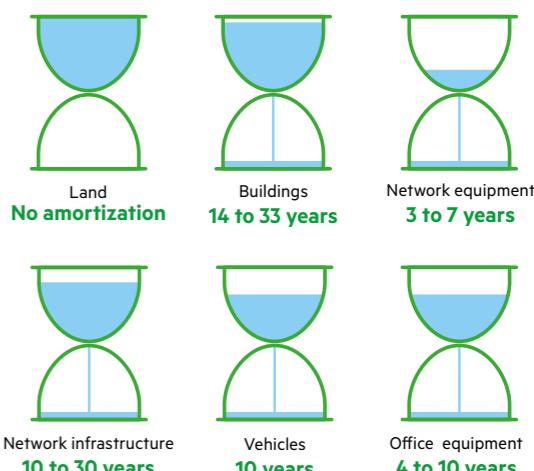
**Accounting policy: Property, plant and equipment**

Property, plant and equipment (PPE) are valued at cost less depreciation and impairment. The cost includes direct costs (materials, direct labor and work contracted out), directly attributable overhead costs and may include borrowing costs capitalized as part of qualifying asset, recorded during the construction phase of PPE components. Asset retirement obligations are capitalized as part of the cost of tangible fixed assets and expensed as either depreciation over the asset's estimated useful life or as impairment charges.

PPE are depreciated using the straight-line method, based on estimated useful life, taking into account residual value. Land is not depreciated. PPE are reviewed for impairment whenever events or changes in circumstances indicate that the book value of the assets concerned may not be recoverable. An impairment loss is recognized for the amount by which the asset's book value exceeds its recoverable amount. Impairments are reversed if and to the extent that the impairment no longer exists. The recoverable amount is defined as the higher of an asset's fair value less costs of disposal and its value in use.

Subsequent costs such as costs for replacement of network components are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that KPN will receive future economic benefits associated with the item and the cost can be measured reliably. The carrying amounts of replaced assets are derecognized. All other repairs and maintenance costs are recognized in profit or loss when incurred.

The estimated useful lives of the principal PPE categories are as follows:



The assets' residual values and useful lives are reviewed at least annually and adjusted if appropriate.

**Borrowing costs**

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for intended use or sale. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale. KPN's qualifying assets mainly are its network (included in PPE) as well as operating licenses (included under intangible fixed assets) which are dependent on a related network. Borrowing costs related to licenses are capitalized during the construction phase of the related network up to the time that services can be first rendered on a commercial basis. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

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**[13] Investments in and loans to associates and joint ventures**

Amounts in millions of EUR	2016	2015
<b>Balance as of January 1</b>	<b>42</b>	<b>42</b>
Movement due to business combination [31]	-17	-
Income from associates and joint ventures	-1	2
Dividend received	-	-1
Transferred to held for sale	-	-1
<b>Balance as of December 31</b>	<b>24</b>	<b>42</b>

KPN holds interests in several legal entities. As at December 31, 2016, investments in associates and joint ventures include NTT Data Getronics (30%) for an amount of EUR 18 million (December 31, 2015: EUR 18 million). At December 31, 2015, investments in associates and joint ventures also included Glasvezelnet Amsterdam B.V. (GNA) (70%) for EUR 17 million. GNA has been consolidated as of January 1, 2016 (read more in Note 29).

The following table illustrates summarized financial data of the joint ventures and associates, based on KPN's relative share.

Amounts in millions of EUR	2016	2015
Current assets	30	27
Non-current assets	5	48
Current liabilities	19	18
Non-current liabilities	3	26
Total revenues	63	73
Total operating expenses	-51	-60
Profit or loss after taxes	-1	2

The difference in value between the assets and liabilities of the table above and the investment value is the goodwill paid by KPN, which is included in the book value of the associates and joint ventures.

**Accounting policy: Investments in associates and joint ventures**

Associates are investments in entities in which KPN has significant influence, but not control, over the financial and operating policy decisions, generally by KPN having 20% to 50% of the voting rights. A joint arrangement is an arrangement of which two or more parties have joint control. Joint arrangements are classified either as joint operations or joint ventures. KPN has assessed the nature of its joint arrangements and determined them to be joint ventures.

Associates and joint ventures are accounted for using the equity method and are initially recognized at cost. Their carrying value includes goodwill identified upon acquisition. The carrying value is subsequently adjusted to recognize KPN's share of the post-acquisition profits or losses and movements in OCI, dividends and impairments of goodwill. To determine KPN's share in the results, the accounting policies of associates and joint ventures are aligned with KPN's accounting policies. Unrealized results on transactions with associates and joint ventures are eliminated to the extent of KPN's share.

When KPN's share of accumulated losses in an associate or joint venture exceeds its interest, KPN does not recognize further losses, unless KPN has obligations to or made payments on behalf of the associate or joint venture.

Loans to associates and joint ventures classify as 'loans and receivables', a category of financial assets. For the accounting policy on 'loans and receivables', read more in Note 15.

**[14] Available-for-sale financial assets**

Amounts in millions of EUR	2016	2015
<b>Balance as of January 1</b>	<b>2,272</b>	<b>2,713</b>
Increase due to purchase	3	3
Decrease due to sale	-9	-805
Fair value adjustment recorded in OCI	-356	363
Other	-1	-2
<b>Balance as of December 31</b>	<b>1,909</b>	<b>2,272</b>

Available-for-sale financial assets consist mainly of KPN's stake in Telefónica Deutschland Holding AG ('Telefónica Deutschland'). Upon the sale of E-Plus in 2014, KPN obtained a 20.5% interest which was reduced to 15.5% in 2015. At December 31, 2016, the fair value of the stake amounted to EUR 1,867 million (2015: EUR 2,249 million). The fair value is based on the price of a Telefónica Deutschland share on the Frankfurt Stock Exchange which was EUR 4.145 when KPN obtained the shares in 2014, EUR 4.414 on December 31, 2014, EUR 4.891 on December 31, 2015 and EUR 4.061 on December 31, 2016.

The stake is accounted for as an available-for-sale financial asset because KPN has no significant influence on Telefónica Deutschland. The considerations of the facts and circumstances that lead to this conclusion are disclosed in KPN's Integrated Annual Report 2015.

In 2016, KPN received a dividend from Telefónica Deutschland of EUR 110 million (2015: EUR 146 million) which has been recorded as Finance income (read more in Note 8). In 2015, KPN reduced its stake in the outstanding share capital of Telefónica Deutschland from 20.5% to 15.5% through the sale of 150 million shares (at a price of EUR 5.37 per share), realizing EUR 805 million in proceeds. A gain of EUR 184 million on this transaction was recognized in Other financial results (read more in Note 8).

In 2016, KPN sold its 3% equity share in Jasper Technologies, a privately held company that provides a global machine-to-machine platform, for an amount of EUR 36 million. The bookvalue as at December 31, 2015 was EUR 9 million. The gain on the sale of EUR 29 million has been recorded as Other financial results (read more in Note 8).

Other available-for-sale financial assets' include minority stakes in:

- › Tecnocom, a listed Spanish ICT services company with a carrying value of EUR 35 million (2015: EUR 10 million);
- › Actility SA, a provider of network solutions and managed information systems for the Internet of Things market with a carrying value of EUR 3 million (2015: EUR 3 million); and
- › EclecticIQ B.V., OPNT CV, SecurityMatters, Viloc and Keen Venture Partners for a total amount of EUR 3 million (all acquired in 2016).

**Accounting policy: AFS financial assets**

AFS financial assets include equity investments which, after initial measurement, are subsequently measured at fair value. Unrealized gains or losses are recognized in OCI. When the investment is derecognized, the cumulative gain is recognized in profit or loss. When the investment is impaired, the cumulative loss is recognized in profit or loss. A significant or prolonged decline for recognizing an impairment on available-for-sale equity instruments is defined by 20% or 9 months measured at reporting date.

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**[15] Trade and other receivables****Trade and other receivables (non-current)**

Amounts in millions of EUR	2016	2015
Balance as of January 1	81	140
Current portion of non-current receivables	30	31
<b>Gross</b>	<b>111</b>	<b>171</b>
Additions	35	15
Redemptions	-60	-79
Other changes	2	4
<b>Total gross at December 31</b>	<b>88</b>	<b>111</b>
Current portion of non-current receivables	27	30
<b>Balance as of December 31</b>	<b>61</b>	<b>81</b>

The non-current balance as of December 31 included the following:

Amounts in millions of EUR	2016	2015
Accrued income and prepayments	34	21
Receivables from financial leases	1	2
Cash collateral paid on derivatives	24	56
Other loans	2	2
<b>Total</b>	<b>61</b>	<b>81</b>

Accrued income and prepayments mainly consist of prepaid rent recognized at nominal value. The gross amount with respect to receivables from financial leases amounts to EUR 1 million (2015: EUR 2 million), which fully matures within five years. The short-term portion of the financial leases is less than 1 million (2015: less than EUR 1 million) and is classified as current trade and other receivables.

**Trade and other receivables (current)**

Amounts in millions of EUR	2016	2015
Trade receivables – gross	437	475
Provision for doubtful trade receivables	-64	-97
Trade receivables – net	373	378
Social security and other taxes	1	-
Other receivables	30	30
Accrued income	263	268
Prepayments	99	102
<b>Total</b>	<b>766</b>	<b>778</b>

The carrying amounts of trade and other receivables approximate their fair value. Trade and other receivables are non-interest bearing.

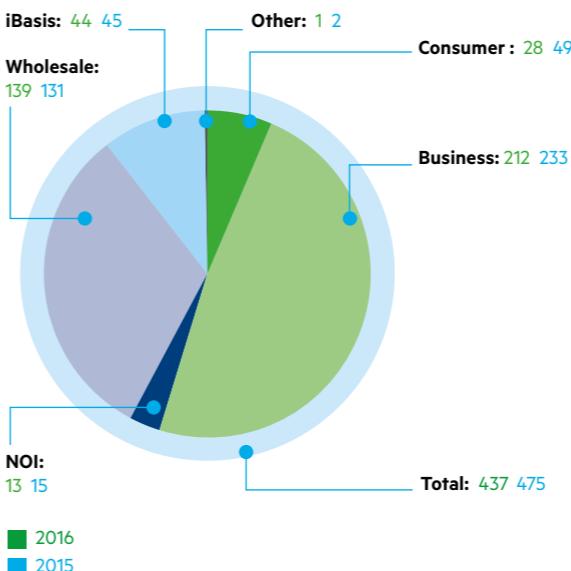
The movements in the provision for doubtful trade receivables are as follows:

Amounts in millions of EUR	2016	2015
Balance as of January 1	97	95
Addition through Statement of Profit or Loss	6	32
Usage/release	-39	-16
Transferred to held for sale	-	-14
<b>Balance as of December 31</b>	<b>64</b>	<b>97</b>

The maximum exposure to credit risk on trade receivables is limited to their gross amount. The concentration of KPN's trade receivables over the different segments as at December 31 can be summarized as follows:

**Trade receivables – gross (current)**

Amounts in millions of EUR



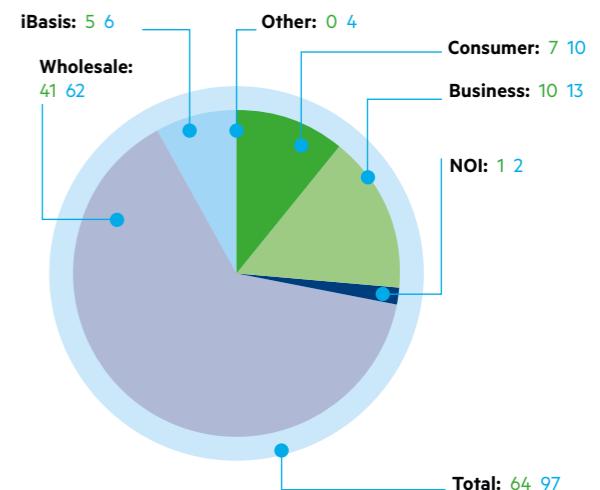
The aging of the gross trade receivables at the reporting date was as follows:

Amounts in millions of EUR	December 31, 2016		December 31, 2015	
	Gross	Provision	Gross	Provision
Amounts undue	241	1	252	3
Past due 0–90 days	91	9	106	11
Past due 91–180 days	37	17	55	35
Past due 181–270 days	6	4	10	4
Past due 271–360 days	4	3	9	5
More than one year	58	30	43	39
<b>Total</b>	<b>437</b>	<b>64</b>	<b>475</b>	<b>97</b>

For a discussion of KPN's policies to reduce credit risk on trade receivables as well as concentration of the credit risk, read more in Note 28. Postpaid mobile services are considered to have the highest credit risks within KPN's business (Business and Consumer segments). Overall, concentrations of credit risk with respect to trade receivables are limited due to the Group's large and unrelated customer base. The provision for doubtful trade receivables is predominantly collectively determined based on ageing and is reviewed periodically.

**Provision for doubtful trade receivables**

Amounts in millions of EUR



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**Accounting policy: Trade and other receivables**

Trade and other receivables classify as loans and receivables, a category of financial assets with fixed or determinable payments that are not quoted in an active market and created by KPN by providing money, goods or services directly to a debtor, other than:

- › those KPN intends to sell immediately or in the short term, which are classified as held for trading; and
- › those for which KPN may not recover substantially all of its initial investment, other than because of credit deterioration, which are classified as available-for-sale.

Loans and receivables are initially recognized at fair value, and subsequently measured at amortized cost using the effective interest rate method, less provisions for impairment. The amortized cost value may equal the initial cost value if there is no maturity. The amortized cost is calculated by taking into account any discounts or premiums on acquisition and transactions costs.

The effective interest rate amortization is recognized in the Statement of Profit or Loss under finance income or finance costs.

A provision for impairment is established when there is objective evidence that KPN will not be able to collect all amounts due according to the original terms of the receivables (uncollectability). The provision is the difference between the carrying amount and the present value of the estimated future cash flows, discounted at the original effective interest rate. The provision is set up through the Statement of Profit or Loss as Other operating expenses.

When a trade receivable is uncollectible, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited against Other operating expenses.

Loans and receivables are included in current assets, except for maturities greater than 12 months after the Statement of Financial Position Date.

**[16] Inventories**

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Resources, parts, tools and measuring instruments	48	67
Finished goods	8	8
<b>Total inventories, gross</b>	<b>56</b>	<b>75</b>
Provision for obsolescence	-9	-10
<b>Total inventories, net</b>	<b>47</b>	<b>65</b>

During 2016, a net amount of EUR 4 million (2015: EUR 4 million) was recorded as an expense for inventories carried at net realizable value. The expense is included in the line item Cost of materials in the Statement of Profit or Loss.

**Accounting policy: Inventories**

Inventories of resources, parts, tools and measuring instruments, and finished goods are valued at the lower of cost or net realizable value. The cost of inventories is determined using the weighted average cost. Net realizable value is the estimated selling price in the ordinary course of business less applicable variable selling expenses.

Losses on the sale of handsets which are sold for less than cost is only recorded when the sale occurs if the normal resale value is higher than the cost of the handset. If the normal resale value is lower than costs, the difference is recognized as impairment immediately.

Transition costs relating to fixed-price contracts involving managed ICT services are capitalized and subsequently recognized in the Statement of Profit or Loss on a straight-line basis during the period the services are provided, taking into account the number of office seats included in the service contract during the term of the contract. Transition costs consist primarily of the labor and other cost of personnel directly engaged in performing the transition, third party services, products and other costs which will be charged to the customer. Transition costs are capitalized if it is probable that they will be recovered and are classified under inventories.

**[17] Other current financial assets**

As at December 31, 2015, and December 31, 2016, other current financial assets included investments in short-duration fixed income funds, which were held at fair value through profit or loss. These funds have low volatility, with an investment objective of preservation of principal.

As at December 31, 2015, other current financial assets also included held-to-maturity investments with initial maturities longer than three months. These include bank deposits and repurchase agreements which are fully collateralized. In case of counterparty default, the collateral ownership would transfer to KPN and can be converted to cash. Read more in Note 27 regarding the decrease in 2016.

Other current financial assets are classified as short-term investments in KPN's Net Debt definition. Read more in Note 28 for KPN's net debt definition.

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Held-to-maturity investments with initial maturities longer than 3 months	–	350
Short-duration fixed income funds held at fair value through profit or loss	140	225
<b>Total Other current financial assets</b>	<b>140</b>	<b>575</b>

**Accounting policy: Held-to-maturity investments**

Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held-to-maturity when KPN has the intention and ability to hold them to maturity. After initial measurement, held-to-maturity investments are measured at amortized cost using the effective interest rate, less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included as finance income in the Statement of Profit or Loss. Losses arising from impairment are recognized in the Statement of Profit or Loss as finance costs.

**Accounting policy: Current financial assets at fair value through profit or loss**

Financial assets at fair value through profit or loss are recognized in the Statement of Financial Position at their fair value with net changes in the fair value presented as finance costs (in case of negative net changes to the fair value) or finance income (in case of positive net changes to the fair value) in the Statement of Profit or Loss.

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**[18] Cash and cash equivalents**

As at December 31, 2016, cash and cash equivalents amounted to EUR 1,179 million (2015: EUR 1,446 million). The main items causing the decrease in cash and cash equivalents were the EUR 0.8 billion scheduled bond redemptions, a EUR 1.2 billion capital repayment in June 2016 and EUR 0.5 billion paid dividends, partly offset by the net proceeds from BASE of EUR 1.2 billion and regular free cash flow generation.

KPN's cash and cash equivalents as at December 31, 2016, consisted of highly liquid instruments, mainly balances on bank accounts, bank deposits, AAA-rated money market funds and tri-party repurchase agreements, all with initial maturities of three months or less. Part of KPN's cash balances have been invested in instruments which are classified as Other current financial assets rather than cash and cash equivalents. Read more in Note 17.

Cash and cash equivalents as at December 31, 2016, were for more than 98% (2015: 99%) denominated in the functional currency of the related entities. The effective interest rate on cash and cash equivalents as at December 31, 2016, was approximately 0.07% negative (2015: 0.01% negative).

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Cash	490	396
Short-term bank deposits, repurchase agreements and money market funds	689	1,050
<b>Total cash and cash equivalents</b>	<b>1,179</b>	<b>1,446</b>
Bank overdraft	-1	-4
<b>Net cash and cash equivalents</b>	<b>1,178</b>	<b>1,442</b>

**Accounting policy: Cash and cash equivalents**

Cash and cash equivalents comprise cash in hand, deposits held at call with banks, and other short-term highly liquid investments with original maturities of three months or less. Bank overdrafts are included within borrowings in current liabilities on the Statement of Financial Position and are not deducted from cash and cash equivalents.

**[19] Non-current assets, liabilities and disposal groups held for sale**

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Intangible assets (including goodwill)	-	419
Property, plant and equipment	2	564
Other non-current assets	-	78
Current assets	-	247
<b>Total assets of disposal groups held for sale</b>	<b>2</b>	<b>1,308</b>
Non-current liabilities	-	105
Current liabilities	-	261
<b>Total liabilities directly associated with the non-current assets and disposal groups classified as held for sale</b>	<b>-</b>	<b>366</b>

On April 20, 2015, KPN announced it had reached an agreement to sell BASE Company (BASE) to Telenet for a consideration of EUR 1,325 million. As of April 15, 2015, BASE has been presented as disposal group held for sale and measured at the book value because this is lower than the fair value less costs of disposal. Given the significance of BASE to KPN, BASE is considered a discontinued operation. The sale of BASE was completed on February 11, 2016.

All assets and liabilities of BASE were presented separately on KPN's Statement of Financial Position as of April 15, 2015, as 'non-current assets and disposal groups classified as held for sale' and 'liabilities directly associated with non-current assets and disposal groups held for sale' until completion of the sale. The assets and liabilities of BASE continued to be accounted for in accordance with the relevant IFRS standards as before April 15, 2015, except that non-current assets held by BASE were no longer amortized or depreciated as of April 15, 2015. Results from BASE are reported as profit/loss (-) for the period from discontinued operations and cash flows from BASE are reported as cash flows from discontinued operations, separate from results and cash flows from KPN's continuing operations as of January 1, 2015, in these Consolidated Financial Statements.

The sale of E-Plus was completed on October 1, 2014. Some results continue to arise from the unwinding of the remaining E-Plus positions. In 2016, previously recorded provisions were released following agreements reached.

The following table summarizes the results included in the Statement of Profit or Loss as profit for the period from discontinued operations:

**Accounting policy: Non-current assets and disposal groups held for sale**

Non-current assets and disposal groups classified as held for sale as well as liabilities directly associated therewith are stated at the lower of carrying amount (book value) and fair value less costs of disposal if their carrying amount is recovered principally through a sale transaction rather than through continuing use. If fixed assets are transferred to held for sale, depreciation and amortization ceases. A disposal group classifies as a 'discontinued operation' based on its significance to the KPN Group.

Amounts in millions of EUR	BASE Company		E-Plus		Total	
	2016	2015	2016	2015	2016	2015
Revenues and other income	53	716	-	-	53	716
Operating expenses	-54	-500	-	-	-54	-500
Finance income and expenses	-	-3	-	-	-	-3
Income taxes	-1	-65	-	-	-1	-65
<b>Subtotal</b>	<b>-2</b>	<b>148</b>	<b>-</b>	<b>-</b>	<b>-2</b>	<b>148</b>
Result on disposal	374	-	-	-	374	-
Transaction costs	-5	-	-	-6	-5	-6
Tax adjustments	-	-	63	-7	63	-7
<b>Total profit (loss) for the period from discontinued operations</b>	<b>367</b>	<b>148</b>	<b>63</b>	<b>-13</b>	<b>430</b>	<b>135</b>

The following table summarizes the net cash flows related to discontinued operations:

Amounts in millions of EUR	BASE Company		E-Plus		Total	
	2016	2015	2016	2015	2016	2015
Cash flow from operating activities	-3	230	-4	-8	-7	222
Cash flow from investing activities	1,183	-101	-	-146	1,183	-247
Cash flow from financing activities	-	-	-	-	-	-
<b>Total net cash (outflow)/inflow from discontinued operations</b>	<b>1,180</b>	<b>129</b>	<b>-4</b>	<b>-154</b>	<b>1,176</b>	<b>-25</b>

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### [20] Group Equity

For a breakdown of equity attributable to equity holders, see the Statement of Changes in Group Equity. The total distributable reserves as at December 31, 2016 amounted to EUR 3,267 million (2015: EUR 4,305 million). For further details on the non-distributable reserves, read the Corporate Financial Statements.

#### Share capital

KPN's authorized capital stock totals EUR 720 million divided into nine billion ordinary shares of EUR 4ct each and nine billion preference shares B of EUR 4ct each. As of December 31, 2016 and 2015, a total of 4,270,254,664 ordinary shares were outstanding and fully paid-in. Dutch law prohibits KPN from casting a vote on shares KPN holds (treasury shares). The ordinary shares and preference shares B carry the right to cast one vote each. The ordinary shares are registered or payable to the bearer. Shareholders may request the company to convert their registered shares to bearer shares but not vice versa.

#### Share premium

The additional paid-in capital is exempt from Dutch tax up to an amount of EUR 9,431 million as at December 31, 2016 (2015: EUR 10,568 million).

On April 13, 2016, the Annual General Meeting of Shareholders of KPN approved a capital repayment to shareholders of EUR 28ct per share. This capital repayment was related to the cash proceeds from the sale of BASE Company in February 2016 and the sale of 150 million shares in Telefónica Deutschland in November 2015. The capital repayment was executed in two steps. In the first step the nominal value of the ordinary shares was increased from EUR 4ct to EUR 32ct per share. The increase in share capital, in total EUR 1.2 billion, was recorded as a deduction of the share premium reserve. In the second step the nominal value of the ordinary shares was decreased from EUR 32ct to EUR 4ct per share. The reduction of the share capital, amounting to EUR 1.2 billion, was paid in cash to the holders of ordinary shares on June 30, 2016.

#### Other reserves

Below is a detailed overview of the movements in the number of treasury shares and other reserves:

Amounts in millions of EUR, unless indicated otherwise	Number of treasury shares	Treasury shares reserve	Hedge reserve	Fair value reserve available-for-sale financial assets	Currency translation reserve	Total other reserves
<b>Balance as of January 1, 2015</b>	<b>12,156,391</b>	<b>-138</b>	<b>-393</b>	<b>125</b>	<b>18</b>	<b>-388</b>
Movements recorded in OCI (net)	-	-	125	134	-2	257
Disposals	-556,941	6	-	-	-	6
<b>Balance as of December 31, 2015</b>	<b>11,599,450</b>	<b>-132</b>	<b>-268</b>	<b>259</b>	<b>16</b>	<b>-125</b>
Movements recorded in OCI (net)	-	-	-85	-261	20	-326
Movement recorded in the Income Statement	-	-	-	-2	-	-2
Sold treasury shares	-1,265,159	14	-	-	-	14
Capital repayment	-	3	-	-	-	3
Reclassification	-	-	-	-15	-	-15
<b>Balance as of December 31, 2016</b>	<b>10,334,291</b>	<b>-115</b>	<b>-353</b>	<b>-19</b>	<b>36</b>	<b>-451</b>

#### Hedge reserve

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Effective portion cash flow hedges <sup>1</sup>	-278	-202
Amortizable part <sup>2</sup> [8]	-193	-155
<b>Hedge reserve</b>	<b>-471</b>	<b>-357</b>
Tax effect	118	89
<b>Hedge reserve, net of tax</b>	<b>-353</b>	<b>-268</b>

<sup>1</sup> The effective portion of cash flow hedges will be recognized in the Statement of Profit or Loss in line with the maturities of the related derivatives. Read more in Note 26.

<sup>2</sup> The amortizable part of the hedge reserve is amortized over the remaining life of the related bonds (between 2016 and 2030). The impact on the Statement of Profit or Loss will be EUR 16 million in 2017.

[.] Bracketed number refers to the related Note.

#### Foundation Preference Shares B KPN

KPN has granted a call option, which is not limited in time, to the Foundation Preference Shares B KPN (the Foundation) to acquire a number of preference shares B in KPN. In addition, KPN has a put option to sell to the Foundation a number of its Class B preference shares. For further information about the Foundation, read more in the chapter 'Corporate governance'.

KPN is of the opinion that neither the put option nor the call option represent a significant fair value as mentioned in IAS 1.31 due to the fact that the put option can no longer be exercised by KPN and the fact that the preference shares B, issued after exercise of the call option, bear interest linked to EURIBOR. The options are therefore not accounted for in the annual accounts nor is any additional information disclosed as meant in IFRS 7.

#### Non-controlling interests

In 2012, KPN acquired a stake in GroupIT B.V. of 12.5% at fair value with a right to acquire the remaining stake and thus obtained control over GroupIT B.V. The amount of noncontrolling interest as at December 31, 2015, included the 87.5% stake of a group of third party shareholders in GroupIT B.V. In 2016, KPN exercised the option and acquired the remaining 87.5% stake on April 1, 2016. This acquisition has been accounted for as a transaction between equity holders resulting in the derecognition of the non-controlling interest in GroupIT B.V. and the option value (read more in Note 28) and a decrease in equity attributable to equity holders.

Glasvezelnet Amsterdam B.V. has been consolidated as of January 1, 2016 (read more in Note 29).

#### Treasury shares and treasury shares reserve

KPN purchased shares in its own capital for delivery upon exercise of share options by management and personnel under the share option and performance share plans (read more in Note 5). Votes on purchased shares may not be cast and they do not count towards determining the number of votes required at a General Meeting of Shareholders. In 2016 and 2015, no shares were purchased. In 2016, 1,265,159 shares were sold in connection with vesting of the 2013 grant of the KPN Restricted Share Plan (read more in Note 5). In 2015, 556,941 shares were sold in connection with vesting of the 2012 grant of the KPN Restricted Share Plan.

Treasury shares are accounted for at cost, representing the market price on the acquisition date. The proceeds at delivery of the treasury shares are recognized directly in the other reserves. In the event that more options are exercised than available as treasury shares for option plans, KPN anticipates providing shares for equity-settled plans through the purchase of shares in the market. All rights with respect to repurchased treasury shares are suspended until those shares are delivered.

#### Equity attributable to holders of perpetual capital securities

The EUR 1.1 billion hybrid bond with a 6.125% coupon is subordinated to KPN Group's senior creditors but ranks above the ordinary and preference shareholders in the event of the company's winding up. This hybrid bond has a perpetual maturity and can, at KPN's discretion, first be redeemed in September 2018. The hybrid bond is classified as equity in the Consolidated Statement of Financial Position (classified as perpetual capital securities). For interest payments and credit ratings, read more in Note 22.

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### [21] Dividend per share

At the Annual General Meeting of Shareholders, to be held on April 12, 2017, a final dividend of EUR 6.7ct per share will be proposed in respect of 2016. In August 2016, KPN paid an interim dividend in respect of 2016 of EUR 3.3ct per share, in total EUR 141 million, bringing the total regular dividend in respect of 2016 to EUR 10ct per share. These financial statements do not reflect the proposal for the remaining dividend payable, which will be accounted for in the Statement of Changes in Group Equity as an appropriation of retained earnings in the year ending December 31, 2016.

In May 2016, the dividend received from KPN's stake in Telefónica Deutschland was distributed to KPN shareholders as an additional interim cash dividend of EUR 2.5ct per ordinary share (EUR 106 million). The total dividend in respect of 2016, including the additional interim cash dividend, will then amount to EUR 12.5ct per ordinary share.

The capital repayment to shareholders of EUR 28ct per ordinary share, equivalent to a total of EUR 1.2 billion, was executed in June 2016.

In April 2016, KPN paid a final dividend of EUR 5ct per share in respect of 2015, in total EUR 213 million. The total dividend in respect of 2015 was EUR 11.4ct per ordinary share including the additional interim cash dividend of EUR 3.4ct per share in relation to the dividend received from KPN's stake in Telefónica Deutschland.

### [22] Borrowings

The carrying amounts and fair value of the borrowings are as follows:

Amounts in millions of EUR	December 31, 2016		December 31, 2015	
	Carrying amount	Fair value	Carrying amount	Fair value
Eurobonds EUR	4,641	4,994	5,139	5,636
Eurobonds GBP	1,557	1,952	1,999	2,251
Global Bonds USD	1,202	1,275	1,191	1,198
Hybrid Bonds (GBP and USD)	1,030	1,113	1,088	1,148
Financial lease obligations	76	73	81	76
Bank overdraft	1	1	4	4
Cash collateral received on derivatives	69	69	147	147
Other loans	56	71	51	65
<b>Total borrowings</b>	<b>8,632</b>	<b>9,548</b>	<b>9,700</b>	<b>10,525</b>
<b>- of which: current</b>	<b>735</b>	<b>736</b>	<b>847</b>	<b>859</b>
<b>- of which: non-current</b>	<b>7,897</b>	<b>8,812</b>	<b>8,853</b>	<b>9,666</b>

The fair value for Eurobonds, Global Bonds and Hybrid Bonds is based on the listed price of the bonds.

All Eurobonds, Global Bonds and Hybrid Bonds pay interest based on fixed coupons. KPN's weighted average interest rate on the borrowings outstanding before swaps at December 31, 2016 was 5.2% (2015: 6.0%). The EUR perpetual hybrid bonds, classified as equity, have been included in this calculation. The weighted average interest rate after swaps was 4.6% (2015: 5.4%). Excluding all hybrid bonds, the average interest rate on the senior bond portfolio after swaps at December 31, 2016 was 4.1% (2015: 5.1%).

For further details on borrowings, including a redemption schedule, read more in Note 28.

#### Bonds

On September 9, 2016, KPN completed a tender offer, in which KPN repurchased an aggregate principal amount of EUR 1.0 billion across five Eurobonds with maturity dates between 2017 and 2024. The total cash-out for the tender amounted to EUR 1.3 billion. As a result of this tender, KPN recorded a loss of EUR 160 million in the profit and loss account.

The tender was financed with the issue of two new Eurobonds.

On August 31, 2016, KPN priced a EUR 625 million Eurobond with a coupon of 0.625% and maturity date of April 9, 2025, and a EUR 625 million Eurobond with a coupon of 1.125% and maturity date of September 11, 2028.

On March 18, 2016, KPN redeemed the GBP 135 million Eurobond 2006–2016 in accordance with the regular redemption schedule.

On January 15, 2016, KPN redeemed the EUR 645 million Eurobond 2008–2016 in accordance with the regular redemption schedule.

On June 22, 2015, KPN redeemed the EUR 1.0 billion Eurobond 2005–2015 in accordance with the regular redemption schedule.

#### Hybrid bonds

The EUR 11 billion hybrid bond has a coupon of 6.125%, the GBP 400 million hybrid bond has a coupon of 6.875% (swapped to EUR 460 million and a 6.78% coupon for a period of seven years) and the USD 600 million hybrid bond has a coupon of 7% coupon (swapped to EUR 465 million and a 6.34% coupon for a period of 10 years).

The GBP and USD hybrid bonds are subordinated bonds with 60-year maturities. The GBP and USD hybrid bonds can, at KPN's discretion, first be redeemed in March 2020 and

Credit rating agency	Rating as at December 31, 2016		Current outlook	Adjustments 2016	Adjustments 2015
	Standard & Poor's	Moody's			
Standard & Poor's	BBB-	Baa3	Stable	None	None
Moody's	Baa3	Baa3	Stable	None	None
Fitch Ratings	BBB	BBB	Stable	June 8: rating changed to BBB with stable outlook	May 1: outlook changed to positive from stable

#### Accounting policy: Loans and borrowings

After initial recognition, loans and borrowings are subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the Statement of Profit or Loss over the period of the borrowings using the effective interest method. The amortized cost is calculated by taking into account any discounts or premiums on acquisition or issuance and transaction costs. The effective interest rate amortization is recognized in the Statement of Profit or Loss under finance costs.

Borrowings are classified as current liabilities unless KPN has an unconditional right to defer settlement of the liability

March 2023 respectively. The GBP and USD hybrid bonds are classified as borrowings in the Statement of Financial Position. The EUR hybrid bond is classified as equity in the Consolidated Statement of Financial Position, read more in Note 20. KPN may, at its discretion and subject to certain conditions, elect to defer payments of interest on each of the three hybrid bonds. Arrears of interest must be paid if dividends are paid on ordinary shares, in the event of early redemption, and for the GBP/USD hybrid bonds at final maturity. Unless previously redeemed at the first call dates, the interest paid on the hybrid bonds will be reset at pre-agreed dates in the future, based on the prevailing swap rate plus a predetermined spread. KPN does not recognize accruals for coupon payments on the EUR hybrid bond (EUR 67 million per year). If an accrual had been recognized, the amount would have been EUR 20 million as at December 31, 2016.

The ratings for all three hybrid bonds are BB by Standard & Poor's, Ba2 by Moody's and BB by Fitch Ratings. The rating agencies recognize 50% of the three hybrid bonds as equity and 50% as debt. The three hybrid bonds are for 50% treated as equity and 50% as debt in KPN's gross and net debt definitions.

#### Credit rating

KPN maintains credit ratings from Standard & Poor's, Moody's and Fitch Ratings. The table below shows the adjustments to the credit ratings during 2016 and 2015.

for at least 12 months after the Statement of Financial Position date.

When bonds are repurchased with the issue of new bonds, the expenses related to the old bonds, including tender premiums, are expensed as incurred unless the new bonds are placed with the same holders and the change in the net present value of the cash flows is less than 10%. In the latter case, these expenses are capitalized and amortized over the term of the new bonds.

This accounting policy also applies to deferred income and trade and other payables (Note 25).

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**[23] Retirement benefits**

Retirement benefits are provided through a number of defined contribution plans and funded and unfunded defined benefit plans. The most significant plans are described below.

**KPN main pension plan**

KPN's main pension plan covers employees in the Netherlands who are subject to KPN's collective labor agreement and employees with an individual labor agreement and is externally funded through Stichting Pensioenfonds KPN (KPN pension fund). This plan is a Collective Defined Contribution pension plan and is accounted for as a defined contribution plan because KPN has no other obligation than to pay the annual contribution which is a fixed percentage of the pensionable base. The coverage ratio of the KPN pension fund as at December 31, 2016 was 112.6%.

**SVG**

Stichting Voorzieningsfonds Getronics (SVG) was the administrator of a number of pension plans of former employees of KPN Corporate Market B.V. (formerly Getronics) and related companies in the Netherlands. As of January 1, 2015, the active members were transferred to the KPN pension fund and accrue benefits under KPN's Collective Defined Contribution plan. Benefits accrued until December 31, 2014 remained at SVG. As of January 1, 2015, KPN's only obligation to SVG was to pay administration expenses for participants who are employed by KPN or certain of its previously divested entities. The amount of administration expenses was linked to the value of the individual savings accounts and therefore the SVG plans continued to be accounted for as a defined benefit plan. For this obligation a provision of EUR 16 million was recognized as at December 31, 2015, and classified as 'provisions for retirement benefit obligation'.

In 2016, the board of SVG initiated a liquidation proceeding. After approval of De Nederlandsche Bank (the regulatory body for pension funds in the Netherlands), SVG's remaining assets and accrued benefit obligations were collectively transferred in December 2016 to Stichting Algemeen Pensioenfonds Stap and the KPN pension fund. This transfer eliminated KPN's obligation to pay administration expenses to SVG. As KPN has no further obligations to SVG to pay for accrued benefits, the transfer of capital was accounted for as a settlement. After a remeasurement, the remaining obligation to pay administration expenses was released, through the Statement of Profit or Loss, to the amount of administration expenses to be paid for the period until settlement, which is fixed. For details, read more in the table on page 139. The administrative liquidation of SVG is expected to be finalized in the second quarter of 2017.

**Getronics UK and US**

The Getronics US and UK operations were divested in 2008 and 2012 respectively. The closed and frozen pension plans of the US and UK operations remained with KPN and are accounted for as a defined benefit plan. The assets of the plans are held separately from KPN in independently administered funds. The UK plan operates under the regulations of the UK Pensions Regulator and the US plan under the provisions of the Employee Retirement Income Security Act (ERISA). The deficit in the plans' funding must be recovered by the investment returns in the plans' assets and contributions by KPN. In 2016, lump-sum distributions were paid to certain participants of the US plan, which has been recorded as a settlement. For details, read more in the table on page 139.

The pension plans in the UK and US expose KPN to a number of risks which can have an impact on the future contributions by KPN and the liability recorded in its balance sheet. The most significant risks are summarized below:

- › Asset volatility: the pension plans' assets are predominantly invested in equity securities and therefore the plans' funding levels are exposed to equity market risks;
- › Interest rate risk: a decrease in interest rates will increase the plans' liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings;
- › Inflation risk: in the UK the indexation of the accrued benefits is unconditional and is based on a combination of consumer and retail price indices and therefore the UK plan is exposed to inflation risk; and
- › Life expectancy: the plans provide benefits for the life of the members, so increases in life expectancy will result in an increase in the plans' liabilities.

**Other**

KPN has a number of other funded plans in the Netherlands, which are closed to new entrants. The risks related to these plans are limited because the obligations are insured with external parties. The pension plan of BASE Company in Belgium was transferred, together with all the associated risks, with the sale of this company on February 11, 2016.

KPN also has a transitional early retirement plan which is unfunded and closed to new entrants. The risks related to this plan are limited because of their short duration (last payment expected in 2020). The amount recorded as a provision for this plan amounts to EUR 52 million as at December 31, 2016.

Furthermore, with regard to closed and frozen plans which are insured, based on Dutch law, KPN could be required to make contributions if participants of these plans require a value transfer to another pension fund or insurer. The risk related to these value transfers is limited and therefore no provision has been recognized for these plans.

**Provisions for retirement benefit obligations**

The provisions for retirement benefit obligations consist of the net defined benefit liability regarding pension plans and early

retirement plans which are accounted for as defined benefit plans as described above. The balance sheet position can be broken down as follows:

Amounts in millions of EUR	Defined benefit obligation <sup>4</sup>		Fair value of plan assets		Net defined benefit liability (asset)	
	2016	2015	2016	2015	2016	2015
Balance as of January 1	2,039	2,132	-1,780	-1,816	259	316
<b>Included in profit or loss:</b>						
› Operating expense:						
current service costs	2	2	-	-	2	2
past service gain <sup>1</sup>	-11	-	-	-	-11	-
settlement gain (net) <sup>2</sup>	-1,339	-	1,336	-	-3	-
administration cost	-	-	3	1	3	1
interest costs (income)	57	43	-50	-34	7	9
<b>Total</b>	<b>-1,291</b>	<b>45</b>	<b>1,289</b>	<b>-33</b>	<b>-2</b>	<b>12</b>

**Included in OCI**

Remeasurements loss (gain):

› Actuarial loss (gain) arising from:						
demographic assumptions	-5	-9	-	-	-5	-9
financial assumptions	149	-89	-	-	149	-89
experience adjustment	1	7	-	-	1	7
› Return on plan assets excluding interest income	-	-	-87	46	-87	46
› Effect of movements in exchange rates	-49	55	33	-37	-16	18
<b>Total</b>	<b>96</b>	<b>-36</b>	<b>-54</b>	<b>9</b>	<b>42</b>	<b>-27</b>

**Other**

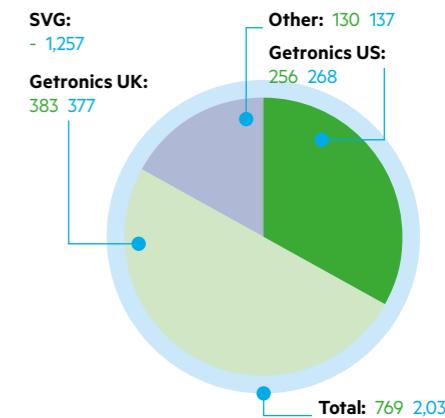
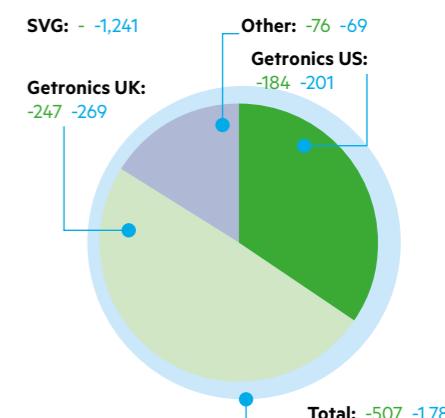
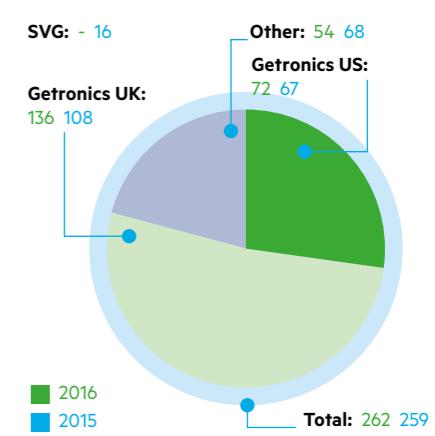
Employer's contribution	-	-	-37	-40	-37	-40
Benefits paid	-75	-86	75	86	-	-
Transferred to held for sale <sup>3</sup>	-	-15	-	14	-	-1
Other	-	-1	-	-	-	-1
<b>Balance as of December 31</b>	<b>769</b>	<b>2,039</b>	<b>-507</b>	<b>-1,780</b>	<b>262</b>	<b>259</b>

1 Relates to SVG: amendment gain due to reduction of the charges for administration expenses (EUR 4 million) and transfer of part of SVG's assets and accrued benefit obligations to the KPN pension fund on April 1, 2016 (EUR 7 million).

2 Settlement gain at SVG of EUR 4 million (EUR 1,313 million defined benefit obligations and EUR 1,313 million plan assets) and settlement loss of EUR 1 million due to lump sum payments to certain participants of the US plan (EUR 22 million defined benefit obligations and EUR 23 million plan assets).

3 Includes BASE Company which was classified as 'held for sale' as of April 15, 2015.

4 The measurement date for all defined benefit plans is December 31.

**Defined benefit obligation****Fair value of plan assets****Net defined benefit liability (asset)**

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**Defined benefit obligations****Actuarial assumptions**

The key actuarial assumptions used in the calculation of the defined benefit obligations are as follows:

	December 31, 2016			December 31, 2015				
	SVG	Getronics UK	Getronics US	Other	SVG	Getronics UK	Getronics US	Other
Discount rate (%)	N.a.	2.7	4.1	1.8	2.5	3.7	4.4	2.6
Expected salary increases (%)	N.a.	N.a.	N.a.	2.0	N.a.	N.a.	N.a.	2.0
Expected benefit increases/indexation (%)	N.a.	2.3-3.3	N.a.	0.5	0.8	2.0-3.0	N.a.	0.8
› Life expectancy for pensioners at the age of 65:								
Male	N.a.	23.0	21.7	21.4	22.1	23.0	21.7	22.1
Female	N.a.	25.0	24.2	23.6	23.3	25.0	24.2	23.4

The discount rate is based on yield curves of AA corporate bonds with maturities equal to the duration of the benefit obligations and in the applicable currency. For the remeasurement at SVG in December 2016 (immediately before the settlement), a discount rate of 1.8% was used and an expected indexation of 1.47%. As at December 31, 2016, the (weighted) average duration of the defined benefit obligation was 15 years. Assumptions regarding life expectancy are based on published statistics and mortality tables that include allowances for future improvement in mortality. The mortality table used in the Netherlands is the projected table AG 2014 which includes projected improvement rates varying by year of

birth, corrected for fund specific circumstances. The mortality table used in the UK is the 93% of SAPS S2P tables CMI 2015 projection with a 1.5% long-term improvement and in the US the RP-2006 with Scale MP-2016. The life expectancy at the age of 65 is expected to increase in the next 20 years with approximately two years in the UK and the US.

**Sensitivity analysis**

The table below shows the approximate impact on the defined benefit obligation of a change in the key actuarial assumptions of 0.5% and in the case of life expectancy of a change of one year.

Amounts in millions of EUR	December 31, 2016		December 31, 2015	
	Increase	Decrease	Increase	Decrease
Discount rate	-54	60	-100	108
Expected salary increases	-	-	-	-
Expected benefit increases	27	-25	60	-59
Life expectancy	27	-27	54	-57

The sensitivities in the table on the left page were estimated by actuaries based on the defined benefit obligations as at December 31, 2016. If more than one of the assumptions change, the impact would not necessarily be equal to the total impact of changes in those individual assumptions.

**Plan assets**

The assets of all defined benefit pension plans as at December 31, 2016 and 2015 consisted of the following (in millions of EUR):

	December 31, 2016			December 31, 2015				
	Quoted	Unquoted	Total	Quoted	Unquoted	Total		
› Equity securities								
Europe	37	-	37	211	-	211		
North America	82	-	82	366	-	366		
Asia	1	-	1	13	-	13		
South America	9	-	9	119	-	119		
Other	25	-	25	38	-	38		
<b>Total</b>	<b>154</b>	<b>-</b>	<b>154</b>	<b>30%</b>	<b>747</b>	<b>-</b>	<b>747</b>	<b>42%</b>

## › Fixed income securities including inflation-linked bonds (per Standard &amp; Poor's rating)

AAA	24	5	29	206	-	206		
AA	9	3	12	271	-	271		
A	20	8	28	124	-	124		
BBB	30	17	47	118	-	118		
< BBB	41	18	59	91	-	91		
no rating	-	1	1	13	-	13		
<b>Total</b>	<b>124</b>	<b>52</b>	<b>176</b>	<b>35%</b>	<b>823</b>	<b>-</b>	<b>823</b>	<b>46%</b>
<b>Real estate<sup>1</sup></b>	<b>6</b>	<b>9</b>	<b>15</b>	<b>3%</b>	<b>-</b>	<b>18</b>	<b>18</b>	<b>1%</b>
<b>Commodities<sup>2</sup></b>	<b>6</b>	<b>-</b>	<b>6</b>	<b>1%</b>	<b>5</b>	<b>-</b>	<b>5</b>	<b>-</b>
<b>Derivatives<sup>3</sup></b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>25</b>	<b>25</b>	<b>2%</b>
<b>Other (mainly insurance contracts)</b>	<b>57</b>	<b>99</b>	<b>156</b>	<b>31%</b>	<b>91</b>	<b>71</b>	<b>162</b>	<b>9%</b>
<b>Total</b>	<b>347</b>	<b>160</b>	<b>507</b>	<b>100%</b>	<b>1,666</b>	<b>114</b>	<b>1,780</b>	<b>100%</b>

<sup>1</sup> As at December 31, 2015, all investments in real estate were located in Europe (2016: none).

<sup>2</sup> Includes investment funds which invest in financial instruments related to commodities such as energy, agricultural products and precious metals.

<sup>3</sup> Includes interest rate swaps, interest rate swaptions and put options on equity securities. See the description of the strategic investment policies for an explanation of the use of these financial derivatives.

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### Strategic investment policies

The strategic investment portfolios of the defined benefit plans (before hedging) at year-end 2016 were as follows:

	Getronics UK	Getronics US	Other plans
Equity securities	35%	45%	–
Fixed income securities (including inflation-linked bonds)	35%	25%	–
Other	30%	30%	100%
Total	100%	100%	100%

In both the UK and the US a road map is in place to move to more fixed income exposure as the funded status improves. The Getronics UK pension fund does not hedge interest rate risks, currency risks and equity risks. The Getronics US pension fund does not hedge currency and equity risks but partially hedges interest rate risk.

As the pension funds mainly invest in the global investment funds, a minor part of these investments could be related to KPN equities. The pension funds do not have direct investments in KPN equities.

### Expected contributions and benefits

In 2016, the total employer's contributions and benefit payments for all defined benefit and defined contribution plans amounted to EUR 127 million (excluding discontinued operations), consisting of EUR 91 million employer's premiums for defined contribution plans, EUR 12 million contributions for funded defined benefit plans and EUR 24 million payments for unfunded plans.

The amount of employer's contributions in 2017 for the remaining defined benefit pension plans is estimated to be EUR 30 million for both funded and unfunded plans. The total amount of employer's premiums to be paid in 2017 for the defined contribution plans is estimated to be EUR 89 million.

### Accounting policy: Provisions for retirement benefit obligations

#### Pension obligations

The liability recognized in the Statement of Financial Position in respect of all pension and early retirement plans that qualify as defined benefit obligation is the present value of the defined benefit obligation at the Statement of Financial Position date less the fair value of plan assets. KPN uses actuarial calculations (projected unit credit method) to measure the obligations and the costs. For the calculation, actuarial assumptions are made about demographic variables (such as employee turnover and mortality) and financial variables (such as future indexation and the discount rate). The discount rate is determined by reference to market rates. These are interest rates of high-quality corporate bonds that are denominated in the currency in which the benefit will be paid and that have terms to maturity approximating the terms of the related liability.

A net defined benefit asset may arise where a defined

benefit plan has been overfunded. KPN recognizes a net defined benefit asset in such a case only when future economic benefits are available to KPN in the form of a reduction in future contributions or a cash refund.

Actuarial gains and losses are recognized immediately in the Statement of OCI.

Past service costs, curtailments and settlements are recognized immediately in the Statement of Profit or Loss.

The amount of pension costs included in operating expenses with respect to defined benefit plans consist of service cost, past service costs, curtailments and settlements and administration costs. Net interest on the net defined benefit liability is presented as part of finance costs.

For pension plans that qualify as a defined contribution plan, KPN recognizes contributions as an expense when an employee has rendered service in exchange for those contributions.

### [24] Provisions for other liabilities and charges

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Restructuring provision	45	79
Asset retirement obligations	34	36
Other provisions	59	41
<b>Total provisions for other liabilities and charges</b>	<b>138</b>	<b>156</b>
<b>of which: non-current</b>	<b>89</b>	<b>97</b>
<b>of which: current</b>	<b>49</b>	<b>59</b>

### Statement of changes in provisions

	Personnel	Contractual	Total restructuring	Asset retirement obligation	Other provisions	Total provisions
<b>Balance of January 1, 2015</b>	<b>35</b>	<b>41</b>	<b>76</b>	<b>67</b>	<b>61</b>	<b>204</b>
<b>of which: current portion</b>	<b>35</b>	<b>10</b>	<b>45</b>	<b>1</b>	<b>45</b>	<b>91</b>
Additions	89	11	100	–	16	116
Releases	–	-3	-3	-9	–	-12
Changes in assumptions	–	–	–	4	–	4
Usage	-87	-8	-95	-1	-27	-123
Transferred to held for sale	1	–	1	-25	-6	-30
Other movements	–	–	–	–	-3	-3
<b>Balance as of December 31, 2015</b>	<b>38</b>	<b>41</b>	<b>79</b>	<b>36</b>	<b>41</b>	<b>156</b>
<b>of which: current portion</b>	<b>38</b>	<b>9</b>	<b>47</b>	<b>3</b>	<b>9</b>	<b>59</b>
Additions	55	3	58	–	33	91
Releases	–	-13	-13	-2	–	-15
Usage	-70	-9	-79	-3	-15	-97
Other movements	–	–	–	3	–	3
<b>Balance as of December 31, 2016</b>	<b>23</b>	<b>22</b>	<b>45</b>	<b>34</b>	<b>59</b>	<b>138</b>
<b>&lt; 1 year</b>	<b>23</b>	<b>6</b>	<b>29</b>	<b>6</b>	<b>14</b>	<b>49</b>
<b>1 - 5 year</b>	<b>–</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>5</b>	<b>22</b>
<b>&gt; 5 year</b>	<b>–</b>	<b>7</b>	<b>7</b>	<b>20</b>	<b>40</b>	<b>67</b>

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### Restructuring provision

During 2016, KPN further decreased the number of employees. The restructuring provision relating to FTE reduction amounted to EUR 23 million as at December 31, 2016 (2015: EUR 38 million). A higher amount of usage compared to additions resulted in a decrease of the restructuring provision.

### Asset retirement obligations

The asset retirement obligations at December 31, 2016 amounted to EUR 34 million (2015: EUR 36 million). The main assumptions of calculation for the asset retirement obligations relate to the estimated costs of removal, discount rate and estimated period of removal, which vary per type of asset. The discount rate for 2016 is 1.4% (2015: 1.4%).

As defined in the Telecommunications Act, the obligation for landlords to tolerate cables, which are part of a public electronic communications network, terminates as soon as those cables have been idle for a continuous period of 10 years. In that situation, a public electronic communications network supplier is required to remove cables on request by a landlord. Due to the fact that the date, when the cables will become idle, is uncertain and KPN is not able to predict whether and when a landlord will place a request for removal, KPN is not able to make a reliable estimate of the impact and therefore no provision was recognized at December 31, 2016 nor at December 31, 2015.

### Other provisions

Other provisions relate to various risks and commitments, onerous contracts, claims and litigations, read more in Note 30.

On February 12, 2016, the Dutch Supreme Court ruled on the consequences of its earlier decision that providing mobile handsets with a postpaid subscription 'for free' or at a reduced price may under circumstances be qualified as providing 'consumer credit'. The Supreme Court concluded that a consumer can in principle annul his agreement with his mobile provider for the part of the agreement that qualifies as consumer credit, if the conditions for providing such credit have not been met. The number of qualifying claims submitted to KPN to date, that fulfilled the criteria, is limited. At this point in time, we expect limited cash outflow for which a provision has been recorded.

### Accounting policy: Provisions for other liabilities and charges

Provisions for items such as asset retirement obligations, restructuring costs and legal claims are recognized when KPN has a present legal or constructive obligation as a result of past events, and it is more likely than not that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the Statement of Financial Position date. The discount rate used to determine the present value reflects current market assessments of the time value of money and the risks specific to the liability.

### Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. KPN recognizes termination benefits when KPN is demonstrably committed either to terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or to providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after December 31 are discounted to present value.

### Other long-term employee obligations

These employee benefits include jubilee or other long-service benefits, long-term disability benefits and, if they are not fully payable within 12 months after the end of the period, bonuses and deferred compensation. The expected costs of these benefits are accrued over the period of employment using an accounting method similar to that for defined benefit pension plans, except that actuarial gains and losses and past-service costs are recognized immediately in the Statement of Profit or Loss.

## [25] Deferred income, trade and other payables

### Other payables and deferred income (non-current)

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Non-interest-bearing accruals	13	15
Deferred income	40	32
Cash-settled share plans	6	6
Other payables	3	12
<b>Total</b>	<b>62</b>	<b>65</b>

Deferred income concerns amounts received in advance for deferred connection fees and other revenues that will be recognized in the future.

### Trade and other payables (current)

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Trade payables	640	774
Deferred income	230	247
Accrued interest	197	278
Accrued expenses	502	540
Social security and other taxes payable	241	228
Other payables	29	23
<b>Total</b>	<b>1,839</b>	<b>2,090</b>

Deferred income (current) mainly concerns amounts billed in advance for fixed fees and subscriptions that will be recognized within 12 months.

### Accounting policy: Deferred income, trade and other payables

Other payables and deferred income (non-current) and trade and other payables (current) classify as 'loans and borrowings' within KPN's financial liabilities. For the accounting policy, read more in Note 22.

## [26] Derivative financial instruments

Derivative financial instruments can be broken down as follows:

Amounts in millions of EUR	December 31, 2016	December 31, 2015
<b>Assets</b>	<b>298</b>	<b>632</b>
Non-current	298	530
Current	–	102
<b>Liabilities</b>	<b>-198</b>	<b>-20</b>
Non-current	-197	-17
Current	-1	-3
<b>Total derivative financial instruments</b>	<b>100</b>	<b>612</b>
of which: designated in a hedge relationship	-59	349
of which: forward exchange contracts	–	1
of which: other derivative financial instruments not designated in a hedge relationship	159	262

The ineffective portion of the fair value hedges and cash flow hedges during 2016 recognized in the Statement of Profit or Loss resulted in a loss of EUR 1 million (2015: EUR 9 million loss).

KPN reports its derivatives positions on the balance sheet on a gross basis. Part of the derivatives portfolio is subject to master netting agreements that allow netting under certain circumstances. If netting had been applied, the total derivatives asset position would be EUR 124 million and the total derivatives liability position would be EUR 24 million at December 31, 2016 (asset position of EUR 612 million and liability position of zero at December 31, 2015).

### Bonds denominated in foreign currency

All bonds denominated in foreign currencies are hedged with cross-currency swaps. The swaps are used to mitigate the exposure on currency risk and interest rate risk. KPN hedged the currency exposure by effectively fixing the countervalue in foreign currency to euro and by hedging the interest rate exposure by swapping the fixed interest rates in foreign currency to fixed rates in euro. The hedges are until maturity of the underlying senior bonds, or until the first call date in case of the hybrid bonds.

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For these hedges, KPN meets the criteria of, and also applies, cash flow hedge accounting. KPN determines the effectiveness of the hedges at inception and on a quarterly basis. KPN uses the cumulative dollar offset method for its cash flow hedges related to cross-currency swaps.

An overview of the cross-currency swaps at December 31, 2016 and December 31, 2015 is presented below (in millions):

Nominal (receive)	Coupon (receive)	Nominal (pay)	Coupon (pay)	Maturity date	Fair value in EUR 2016	Fair value in EUR 2015
GBP 135	5.75%, annual	EUR 158	4.89%, annual	March 18, 2016	-	26
GBP 96	6.0%, annual	EUR 123	4.58%, annual	May 29, 2019	-11	8
GBP 400	6.875%, annual	EUR 460	6.78%, annual	March 14, 2020	-8	71
USD 600	7.0%, semi-annual	EUR 465	6.34%, semi-annual	March 28, 2023	68	66
GBP 400	5.0%, annual	EUR 479	4.72%, annual	November 11, 2026	-58	30
GBP 850	5.75%, annual	EUR 971	5.43%, annual	September 17, 2029	-65	103
USD 1,000	8.375%, semi-annual	EUR 756	8.56%, semi-annual	October 1, 2030	15	45
<b>Total</b>					<b>-59</b>	<b>349</b>

<sup>1</sup> Negative amounts are liabilities.

Part of KPN's derivatives portfolio contains reset clauses or collateral postings at pre-agreed dates (read more in Note 28).

### Bonds denominated in EUR

Since 2011, the Eurobonds with maturities on September 21, 2020, October 4, 2021, and September 30, 2024, have been swapped to a floating rate based on three-month Euribor using fixed-to-floating interest swaps. In May 2015, KPN changed the interest profile for these bonds, by swapping the floating rate exposure to a fixed rate for the remaining maturity of the relevant bond.

KPN discontinued fair value hedge accounting for the fixed-to-floating interest rate swaps in May 2015, with the cumulative gain of EUR 224 million amortized to earnings

until maturity of the bonds. Until May 2015, KPN determined the effectiveness of these fair value hedges at inception and on a quarterly basis, based on a regression method. The balance of the unamortized gain was EUR 108 million at December 31, 2016 (2015: EUR 202 million).

Since May 2015, KPN holds all interest rate swaps at fair value through profit or loss. During 2016, KPN recorded a loss in the Statement of Profit or Loss of EUR 28 million, excluding amortization of discontinued fair value hedges (2015: EUR 8 million loss).

An overview of the interest rate swaps at December 31, 2016 and December 31, 2015 is presented below (in millions).

Nominal	Currency	Maturity date	Pay	Receive	Fair value in EUR 2016	Fair value in EUR 2015
710	EUR	September 21, 2020	Floating	Fixed	61	66
500	EUR	October 4, 2021	Floating	Fixed	57	58
595	EUR	September 30, 2024	Floating	Fixed	96	84
710	EUR	September 21, 2020	Fixed	Floating	-15	-9
500	EUR	October 4, 2021	Fixed	Floating	-15	-7
595	EUR	September 30, 2024	Fixed	Floating	-25	-5
<b>Total</b>					<b>159</b>	<b>187</b>

### Foreign exchange contracts

The fair value of foreign exchange exposure hedge contracts is determined using market forward exchange rates at the balance sheet date. As of December 31, 2016, the contract volume amounted to EUR 78 million (2015: EUR 69 million),

with a fair value around nil (2015: EUR 1 million). All foreign exchange contracts had maturities shorter than one year.

For further details on derivative financial instruments, read more in Note 28.

### Accounting policy: Financial assets at fair value through profit or loss

This category of 'financial assets' has two subcategories: financial assets held for trading and those designated at fair value through profit or loss at inception. Financial assets held for trading are classified in this category when acquired principally for the purpose of selling in the short-term or if so designated by management. Derivatives, including separated embedded derivatives, are classified as held for trading except when they are

designated as effective hedge instruments under IAS 39 'Financial Instruments: Recognition and Measurement'.

Financial assets at fair value through profit or loss are recognized in the Statement of Financial Position at their fair value with net changes in the fair value presented as finance costs (in case of negative net changes to the fair value) or finance income (in case of positive net changes to the fair value) in the Statement of Profit or Loss.

### Accounting policy: Derivative financial instruments and hedging activities

Derivative financial instruments are initially recognized at fair value. Subsequently, KPN measures all derivative financial instruments based on fair values derived from market prices of the instruments or valuation techniques such as discounted cash flows. Gains and losses arising from changes in the fair value of the instruments are recognized in the Statement of Profit or Loss as finance cost (in case of negative net changes to the fair value) or finance income (in case of positive net changes to the fair value) during the period in which they arise to the extent that the derivatives have no hedging designation or they are ineffective.

In general, KPN designates derivatives related to loans as either cash flow hedges or fair value hedges. KPN applies hedge accounting as this recognizes the offsetting effects on profit or loss of changes in the fair values of the hedging instrument and the hedged item (borrowings) and/or forecasted transactions.

At the inception of transactions, KPN documents the relationship between the derivative and hedged item (such as the underlying loan), as well as the objective of the risk management and the strategy for undertaking transactions. In the documentation, it is also stated whether the hedge relationship is expected to be effective – at inception and on an ongoing basis – and how the effectiveness is tested.

Changes in the fair value of an effective derivative, which is designated as a fair value hedge and qualifies as such, along

with the gain or loss on the hedged item that is attributable to the hedged risk, are recorded in the Statement of Profit or Loss as finance cost (in case of negative changes to the fair value) or finance income (in case of positive net changes to the fair value).

Changes in the fair value of an effective derivative, which is designated as a cash flow hedge and qualifies as such, are recorded in the Statement of OCI for the effective part, until the profit or loss is affected by the variability in cash flows of the designated hedged item. The ineffective part of the cash flow hedge is recognized in the Statement of Profit or Loss as finance cost (in case of negative changes to the fair value) or finance income (in case of positive net changes to the fair value).

If an underlying transaction has ceased to be an effective hedge or in case of early redemption of the hedged item, KPN discontinues hedge accounting prospectively which means that subsequent changes in the fair value are recognized in the Statement of Profit or Loss, under 'finance income' or 'finance costs'. The cumulative amount recorded in the Statement of OCI is released in profit or loss.

The full fair value of the derivatives is classified as a non-current asset or liability if the remaining maturity of the hedged item is more than 12 months and as a current asset or liability if the remaining maturity is less than 12 months.

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# Other Notes to the Consolidated Financial Statements

## [27] Net cash flow used in investing and financing activities

### Investing activities

Acquisitions of subsidiaries, associates and joint ventures in the Statement of Cash Flows in 2016 mainly consist of the acquisition of Dekatel Nederland B.V. and in 2015 the acquisition of Internedservices Group B.V. Read more in Note 29.

The proceeds from the sale of BASE Company of EUR 1,193 million (net of cash transferred) are included in net cash flow from investing activities from discontinued operations. Read more in Note 19.

During 2016, KPN reduced its position in Other current financial assets by EUR 435 million. This includes the maturity of bank deposits and tri-party repurchase agreements with initial maturities longer than three months for a net amount of EUR 350 million (net investment of EUR 50 million in 2015) and the divestment of short-duration fixed income funds for a net amount of EUR 85 million (net investment of EUR 225 million in 2015). Read more in Note 17.

Disposal of available-for-sale financial assets in 2016 consists of the proceeds of the sale of KPN's stake in Jasper Wireless and in 2015 of the proceeds of the sale of 150 million shares in Telefónica Deutschland. Read more in Note 14.

### Financing activities

On September 9, 2016, KPN completed a tender offer on part of its outstanding bonds, which was financed by issuing two new Eurobonds. Scheduled bond redemptions, the bond tender and the new issue transaction resulted in net financing cash flows during 2015 and 2016. Read more in Note 22.

In 2016, a capital repayment to holders of ordinary shares of EUR 28ct per share was executed. This capital repayment was related to the cash proceeds from the sale of BASE Company in February 2016 and the sale of 150 million shares in Telefónica Deutschland in November 2015. Read more in Note 20.

Other in 2016 consists, among other items, of changes in non-controlling interests in GroupIT B.V. and Glasvezelnet Amsterdam B.V. Read more in Notes 20, 28 and 29.

### Accounting policy: Statement of Cash Flows

The Statement of Cash Flows is prepared using the indirect method. Cash flows denominated in currencies other than EUR are translated at average exchange rates. Cash flows relating to interest and taxes on profits and tax deductions relating to interest on perpetual hybrid bonds (which are classified as equity) are included in the cash flow from operating activities.

The consideration paid in cash for acquired subsidiaries is included in the cash flow from investing activities net of cash acquired. Cash flows resulting from the disposal of subsidiaries are disclosed separately, net of cash sold. Investments in property, plant and equipment, which are financed by financial leases, are not included in the cash flow used in investing activities.

## [28] Capital and Financial Risk Management

### Capital management

#### Financing policy

KPN is committed to striving for the right balance between a prudent financing policy, investments in the business and shareholder remuneration. KPN is committed to an investment grade credit profile. It is KPN's policy to utilize its excess cash for operational and financial flexibility, (small) in-country mergers and acquisitions and/or shareholder remuneration.

KPN monitors its Net Debt/EBITDA ratio as one of the drivers for its credit ratings. The table below shows the calculation of KPN's Net Debt/EBITDA ratio, which is based on numbers including BASE Company for 2015. A number of adjustments were made to the borrowings in Note 22 in order to arrive at the Net Debt for the Net Debt/EBITDA calculation.

The difference between carrying value and nominal value includes (1) carrying value adjustments resulting from discontinued fair value hedges and (2) in case of foreign currency bonds the difference between the nominal amount at the prevailing spot rate and the swapped nominal amount in EUR.

	Amounts in millions of EUR	2016	2015
Total borrowings (carrying values, excluding derivatives) [22]	8,632	9,700	
Bank overdraft (included in net cash and cash equivalents) [18]	-1	-4	
Perpetual hybrid bonds	1,100	1,100	
50% equity credit for hybrid bonds	-1,013	-1,013	
Cash collateral paid on derivatives [15]	-24	-56	
Difference between carrying value and nominal value	-617	-1,061	
<b>Adjusted gross debt</b>	<b>8,077</b>	<b>8,666</b>	
Cash and cash equivalents (including held for sale) [18]	1,179	1,579	
Bank overdraft [18]	-1	-4	
<b>Net cash and cash equivalents</b>	<b>1,178</b>	<b>1,575</b>	
Short-term investments [17]	140	575	
<b>Net Debt</b>	<b>6,759</b>	<b>6,516</b>	
Normalized EBITDA	2,429	2,591	
<b>Net Debt/EBITDA</b>	<b>2.8x</b>	<b>2.5x</b>	

[..] Bracketed numbers refer to the related Notes.

KPN defines EBITDA as operating result before depreciation and impairments of property, plant and equipment and amortization and impairments of intangible assets. KPN's definition of EBITDA deviates from the literal definition of earnings before interest, taxes, depreciation and amortization and should not be considered in isolation or as a substitute for analyses of the results as reported under IFRS. In the Net Debt/EBITDA ratio, KPN defines Net Debt as the nominal value of interest-bearing financial liabilities excluding derivatives and related collateral, representing the net repayment obligations in EUR, taking into account 50% of the nominal value of the hybrid capital instruments, less net cash and short-term investments, and defines normalized EBITDA as a 12-month rolling total excluding restructuring costs, incidentals and major changes in the composition of the Group (acquisitions and disposals).

### Shareholder remuneration

KPN generates Free Cash Flow (after capital expenditures), which forms the basis for its policy related to regular dividends. KPN intends to provide a sustainable and growing regular dividend in line with its Free Cash Flow growth profile.

KPN intends to pay a regular dividend per share of EUR 10ct in respect of 2016. An interim dividend of EUR 3.3ct per share was paid in August 2016. The final regular dividend of EUR 6.7ct per share is expected to be paid following shareholder approval in April 2017. In respect of 2017, a regular dividend per share of EUR 11ct is intended.

KPN remains committed to an investment-grade credit profile and expects to utilize excess cash for operational and financial flexibility, (small) in-country M&A and/or shareholder remuneration. Any additional shareholder remuneration on top of the regular dividend could for example be in the form of a dividend, share buyback or capital repayment.

The 15.5% stake in Telefónica Deutschland is treated as a financial investment. KPN benefits from dividend payments by Telefónica Deutschland and additional financial flexibility. KPN intends to pass-through potential dividend received from Telefónica Deutschland to its shareholders.

KPN's shareholder remuneration policy may change, is based on a number of assumptions concerning future events and is subject to uncertainties and risks that are outside KPN's control. For an overview of dividends and other shareholder returns, read more in Notes 20 and 21.

### Financial risk management

KPN is exposed to a variety of financial risks. The overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on KPN's financial position and performance. KPN uses derivative financial instruments to hedge certain risk exposures. Read more in Note 26.

The financial risks are managed by KPN's Treasury department under policies approved by the Board of Management. These policies are established to identify and analyze financial risks faced by KPN, to set appropriate risk limits and controls, and to monitor adherence to those limits. Treasury manages these risks in close cooperation with the Group companies, business operations and other corporate departments. KPN's key Treasury risks are the following:

- > Credit and counterparty risk;
- > Liquidity risk; and
- > Market risk.

In addition, KPN's Treasury department provides cash management and funding services to the Group companies and business operations.

This Note provides information about the Group's exposure to each of the above-mentioned risks, the Group's objectives, policies and processes for measuring and managing risks. Further quantitative disclosures are included throughout these Financial Statements.

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The table below summarizes the Group's financial assets and liabilities:

Amounts in millions of EUR	December 31, 2016		December 31, 2015	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets Fair value through profit or loss:</b>				
Derivatives – non-current [26]	298	298	530	530
Derivatives – current [26]	–	–	102	102
<b>Loans and receivables:</b>				
Non-current receivables from financial leases and other loans [15]	27	27	60	60
Loans to associates and joint ventures [13]	–	–	20	20
Trade receivables [15]	373	373	378	378
Other current receivables [15]	30	30	30	30
Other current financial assets [17]	140	140	575	575
Cash and cash equivalents [18]	1,179	1,179	1,446	1,446
<b>Subtotal</b>	<b>2,047</b>	<b>2,047</b>	<b>3,141</b>	<b>3,141</b>
Available-for-sale financial assets [14]	1,909	1,909	2,272	2,272
<b>Total</b>	<b>3,956</b>	<b>3,956</b>	<b>5,413</b>	<b>5,413</b>
<b>Financial liabilities Fair value through profit or loss:</b>				
Derivatives – non-current [26]	197	197	17	17
Derivatives – current [26]	1	1	3	3
<b>Subtotal</b>	<b>198</b>	<b>198</b>	<b>20</b>	<b>20</b>
<b>Loans and borrowings:</b>				
Borrowings [22]	8,632	9,548	9,700	10,525
Trade payables [25]	640	640	774	774
Other payables and accrued expenses and interest [25]	763	763	841	841
<b>Subtotal</b>	<b>10,035</b>	<b>10,951</b>	<b>11,315</b>	<b>12,140</b>
<b>Total</b>	<b>10,233</b>	<b>11,149</b>	<b>11,335</b>	<b>12,160</b>

[.] Bracketed numbers refer to the related Notes.

The following table presents the Group's financial assets and liabilities that were measured at fair value on December 31, 2016, and December 31, 2015.

Amounts in millions of EUR	Level 1	Level 2	Level 3	Total
				December 31, 2016
<b>Assets</b>				
<b>Financial assets at fair value through profit or loss:</b>				
Derivatives (cross-currency interest rate swap)	–	84	–	84
Derivatives (interest rate swap)	–	214	–	214
<b>Available-for-sale financial assets:</b>				
Listed securities	1,902	–	–	1,902
Unlisted securities	–	–	7	7
<b>Total assets</b>	<b>1,902</b>	<b>298</b>	<b>7</b>	<b>2,207</b>
<b>Liabilities</b>				
<b>Financial liabilities at fair value through profit or loss:</b>				
Derivatives (cross-currency interest rate swap)	–	142	–	142
Derivatives (interest rate swap)	–	55	–	55
Other derivatives	–	1	–	1
<b>Total liabilities</b>	<b>–</b>	<b>198</b>	<b>–</b>	<b>198</b>
Amounts in millions of EUR	Level 1	Level 2	Level 3	Total
				December 31, 2015
<b>Assets</b>				
<b>Financial assets at fair value through profit or loss:</b>				
Derivatives (cross-currency interest rate swap)	–	349	–	349
Derivatives (interest rate swap)	–	207	–	207
Other derivatives	–	1	75	76
Short-duration fixed income funds	225	–	–	225
<b>Available-for-sale financial assets:</b>				
Listed securities	2,259	–	–	2,259
Unlisted securities	–	–	13	13
<b>Total assets</b>	<b>2,484</b>	<b>557</b>	<b>88</b>	<b>3,129</b>
<b>Liabilities</b>				
<b>Financial liabilities at fair value through profit or loss:</b>				
Derivatives (interest rate swap)	–	20	–	20
<b>Total liabilities</b>	<b>–</b>	<b>20</b>	<b>–</b>	<b>20</b>

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### Fair value estimation

The fair value of financial instruments traded in active markets is based on quoted market prices. If applicable, these instruments are included in Level 1.

An instrument is included in Level 2 if the financial instrument is not traded in an active market and if the fair value is determined by using valuation techniques based on maximum use of observable market data for all significant inputs. For the derivatives used for hedging purposes, KPN uses the estimated fair value of financial instruments determined by using available market information and appropriate valuation methods, including relevant credit risks. The estimated fair value approximates to the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

If one or more of the significant inputs is not based on observable market data, the instrument is included in Level 3 and the fair value is estimated using models and other valuation methods. To the extent possible, the assumptions and inputs used take into account market pricing information and expectations. However, such information is by its nature subject to uncertainty. Changes arising as new information becomes available could impact income or other comprehensive income.

For other financial assets and liabilities, the following methods and assumptions were used to determine fair value:

- › Eurobonds, Global Bonds and Hybrid Bonds classified as Borrowings: based on the listed price of the bonds;
- › Cash, cash equivalents, other current financial assets, accounts receivable and payable, bank overdrafts: as the maturity of these financial instruments is short, the carrying value approximates to fair value.

Listed securities include KPN's shareholding in Telefónica Deutschland. Read more in Note 14.

Other derivatives in Level 3 as at December 31, 2015, included the option to acquire the remaining stake of 87.5% in GroupIT B.V. In 2016 this option was exercised and the remaining stake was acquired (read more in Note 20). For details about the valuation of this option, read more in the Integrated Annual Report 2015.

The valuation of available-for-sale unlisted securities is based on a discounted cash flow model.

### Credit and counterparty risk

KPN's financial assets are subject to credit risk and counterparty risk. Credit risk arises from the possibility of asset impairment occurring when counterparties are unable to meet their obligations in transactions involving financial instruments.

KPN has policies with limits for the maximum exposure per counterparty and investment periods, which are primarily based on minimum credit ratings. These policies were reviewed and updated in 2015. It is KPN's policy to invest cash balances with counterparties with a minimum credit rating equivalent to A3 at Moody's. Cash balances used for working capital purposes can also reside at (local) banks with lower credit ratings. KPN is allowed to invest excess cash with tenors up to 12 months, subject to certain conditions. Capital preservation is the main priority when investing excess cash.

KPN spreads its cash and cash equivalents balances and derivatives over several counterparties. As at December 31, 2016, KPN only held cash in bank accounts, bank deposits, money market funds and tri-party repurchase agreements with maturities up to three months. The majority of the cash balances at year-end 2016 were invested in institutions with a credit rating equivalent to A2 at Moody's or stronger.

It is KPN's policy only to enter into new derivative transactions with counterparties with a minimum credit rating equivalent to A2 at Moody's. KPN has its derivative instruments outstanding with financial institutions that had a credit rating equivalent to Baa1 or higher with Moody's at December 31, 2016.

KPN takes into account credit risk for the valuations of its derivatives portfolio, based on IFRS 13. As at December 31, 2016, KPN recorded no credit valuation gain or loss in the Statement of Profit or Loss, related to interest rate swaps recorded as fair value hedges (2015: loss of EUR 2 million). As at December 31, 2016, and December 31, 2015, KPN recorded no gain or loss in Other Comprehensive Income, related to cross-currency swaps recorded as cash flow hedges.

During 2016 and 2015, KPN monitored counterparty risk on cash and derivatives on a regular basis, based on counterparty credit ratings and other metrics, including credit default swap (CDS) levels of the counterparties. In addition, KPN monitors concentration risk on investments in money market funds through the percentage of the total fund size owned.

Credit risk on trade receivables is controlled using restrictive policies for customer acceptance. Credit management is focused on mobile services as the credit risk is considered to be the highest within this part of KPN's business. Before accepting certain new customers in this segment, KPN requests credit watchers to provide credit management reports. In addition, KPN keeps track of the payment performance of customers. In case customers fail to meet

set criteria, payment issues have to be solved before a new transaction with these customers will be entered into.

Concentrations of credit risk with respect to trade receivables are limited due to the Group's large and unrelated customer base. An allowance for doubtful receivables is recognized. Read more in Note 15 for the accounting policies regarding trade and other receivables.

### Guarantees

The Group's policy is to provide financial guarantees only to wholly-owned subsidiaries. As at December 31, 2016, KPN had parent guarantees (based on Article 403, Part 9, Book 2 of the Dutch Civil Code) and bank guarantees outstanding to third parties for various Dutch wholly-owned subsidiaries.

On December 31, 2016, KPN's total outstanding bank guarantees amounted to EUR 8 million (2015: EUR 15 million), which were issued in the ordinary course of business.

### Maximum exposure to credit risk

As KPN does not provide financial guarantees other than to wholly-owned subsidiaries, the carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at reporting date amounts to the total of the financial assets including cash (EUR 3,956 million at December 31, 2016 and EUR 5,413 million at December 31, 2015).

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### Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations associated with financial instruments as they become due.

The Group's approach to managing liquidity is to ensure

sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group.

The table below provides a maturity analysis of the financial liabilities based on the remaining contractual maturities as of December 31, 2016.

Amounts in millions of EUR	Borrowings			Derivatives			Trade and other payables and accrued expenses	Total
	Bonds and loans <sup>1</sup>	Interest on bonds and loans <sup>2</sup>	Financial lease obligations	Other debt and Cash collateral	Derivatives inflow (Including interest)	Derivatives outflow (Including interest)		
2017	720	338	11	9	-282	219	1,206	2,221
2018	–	305	7	53	-280	217	–	302
2019	577	305	7	-9	-393	340	–	827
2020	461	264	7	–	-741	672	–	663
2021	613	246	7	–	-226	177	–	817
2022–2031	4,706	1,472	37	–	-4,369	3,848	–	5,694
2032 and subsequent years	1,086	2	–	–	–	–	–	1,088
<b>Contractual cash flows</b>	<b>8,163</b>	<b>2,932</b>	<b>76</b>	<b>53</b>	<b>-6,291</b>	<b>5,473</b>	<b>1,206</b>	<b>11,612</b>

The table below provides a maturity analysis of the financial liabilities based on the remaining contractual maturities as of December 31, 2015.

Amounts in millions of EUR	Borrowings			Derivatives			Trade and other payables and accrued expenses	Total
	Bonds and loans <sup>1</sup>	Interest on bonds and loans <sup>2</sup>	Financial lease obligations	Other debt	Derivatives inflow (Including interest)	Derivatives outflow (Including interest)		
2016	829	447	11	98	-492	388	1,337	2,618
2017	750	394	10	–	-296	221	–	1,079
2018	–	358	8	–	-296	221	–	291
2019	881	358	8	–	-428	344	–	1,163
2020	723	294	7	–	-834	675	–	865
2021–2030	4,705	1,775	37	–	-4,871	4,045	–	5,691
2031 and subsequent years	1,146	4	–	–	–	–	–	1,150
<b>Contractual cash flows</b>	<b>9,034</b>	<b>3,630</b>	<b>81</b>	<b>98</b>	<b>-7,217</b>	<b>5,894</b>	<b>1,337</b>	<b>12,857</b>

<sup>1</sup> The GBP and USD hybrid bonds are included with final maturities in 2073 (redemption value of EUR 1,036 million at December 31, 2016 and EUR 1,096 million at December 31, 2015). The EUR perpetual hybrid bond is not included as it has no stated maturity date. Please read more in Note 22 for more information on the hybrid bonds.

<sup>2</sup> Interest payments on the GBP and USD hybrid bonds (EUR 72 million per year until the first call date in 2020 at December 31, 2016 and EUR 76 million at December 31, 2015) are not included. KPN may, at its discretion and subject to certain conditions, elect to defer payments of interest on these hybrid bonds. Any arrears of interest must be paid at the latest at redemption in 2073, the amount of which cannot be reliably measured because of the duration of the hybrid bonds. For similar reasons, interest payments on the EUR hybrid bond have been excluded as well. Read more in Note 22 on the hybrid bonds.

The undiscounted value of the financial lease obligations amounts to EUR 76 million at December 31, 2016 (2015: EUR 81 million). The financial lease obligations primarily include lease obligations for buildings leased by KPN (read more in Note 12) and handsets. Some of these lease arrangements for buildings include an option to extend the lease term.

Part of KPN's derivatives portfolio contains reset clauses or collateral postings at pre-agreed dates, in order to mitigate counterparty exposure during the life of the swap. These reset clauses will result in early Euro settlement obligations in cash with the swap counterparty, which could lead to additional cash inflows or outflows before maturity. During 2016, KPN paid net collateral of EUR 46 million (2015: received EUR 191 million), according to pre-agreed settlement schedules. In order to reduce liquidity risks, the reset clauses or collateral postings of these derivatives are spread over different points in time and are not more frequent than annually per swap, except for one counterparty.

### Available financing sources

As of December 31, 2016, KPN held a net cash and cash equivalents position amounting to EUR 1,178 million and short-term investments of EUR 140 million. In principle, net cash and cash equivalents and short-term investments are at disposal to KPN on a group level, except for limited amounts of cash held at local subsidiaries.

In addition to the available cash and cash equivalents and short-term investments and cash flows from operations. KPN has the following financing resources available:

### Revolving credit facility

On July 1, 2016, KPN signed a new syndicated Revolving Credit Facility for EUR 1.25 billion with 12 banks at improved terms, with an initial 5-year term and two 1-year extension options. The new facility replaced the EUR 2.0 billion facility which had been in place since 2011. The EUR 2.0 billion syndicated Revolving Credit Facility was provided by 14 relationship banks and had a final maturity in July 2018. Both the previous and new facility are used for general corporate purposes and do not contain any financial covenants.

As of December 31, 2016, and December 31, 2015, KPN had no drawings on its credit facility.

### Overdraft facilities

At December 31, 2016, KPN had four uncommitted overdraft facilities with four banks amounting to EUR 175 million in total (2015: EUR 175 million with four banks). The overdraft facilities may be canceled at any time and do not have a specified maturity date. As of December 31, 2016 and 2015, there were no amounts drawn under any of the overdraft facilities, except for bank overdrafts under cash pool agreements.

### Global Medium Term Note Program

KPN updated its Global Medium Term Note ('GMTN') program in March 2016. The program does not contain any commitment from investors to provide funding to KPN. Funding will be available subject to market conditions and other factors at the relevant time.

### Capital Resources Covenants

KPN's existing capital resources contain the following covenants as at December 31, 2016, which could trigger additional financial obligations or early redemption of the outstanding indebtedness.

All of KPN's senior bonds issued after January 1, 2006 (EUR 6.1 billion at December 31, 2016) and the EUR 50 million private placement issued in 2012 contain a change of control clause by means of which KPN may be required to redeem such outstanding bonds early, in the event that (i) certain changes of control occur and (ii) within the change of control period a rating downgrade to sub-investment grade occurs in respect of that change of control. The change of control period ends 90 days after the change of control event occurs.

KPN's hybrid bonds contain a change of control clause by means of which KPN has the option to repurchase the hybrid bonds at par. A 5% interest step-up applies if a rating downgrade occurs during the change of control period in respect of that change of control.

In addition, many of KPN's capital resources contain a covenant prohibiting KPN from entering into any amalgamation, demerger, merger, corporate restructuring or reorganization, unless prior written consent has been given by a majority of the lenders or bondholders or the resulting company assumes all of the rights and obligations with respect to the loans or bonds.

### Market risk

KPN is exposed to various kinds of market risks in the ordinary course of business. These risks include:

- > Foreign currency exchange rate risk;
- > Interest rate risk; and
- > Other market price risk.

KPN has established policies that deal with the use of derivative financial instruments in order to reduce foreign currency exposure and to manage the interest rate profile. KPN's centralized Treasury department matches and manages intercompany and external foreign currency exposures reported by the various business operations and Group companies. Hedges are applied on a full coverage basis, if economically feasible.

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In line with these policies, derivative financial instruments are used solely for the purpose of hedging underlying exposures to foreign currency exchange rate risk and interest rate risk. Contracts related to derivative financial instruments are entered into for periods consistent with the underlying exposures (if economically feasible) and do not constitute positions independent of these exposures.

KPN's policy is to apply hedge accounting for derivative financial instruments related to interest rate risk and foreign exchange risk for bonds that are not denominated in Euro. KPN applies hedge accounting for derivative financial instruments related to bonds denominated in Euro if it minimizes expected volatility in the Statement of Profit or Loss provided the criteria are met regarding formal designation and documentation of the hedge relationship, the risk management objective, the strategy for undertaking the hedge and the effectiveness of the hedge. KPN tests effectiveness of the hedge relationship at inception and every quarter. Read more in Note 26.

### Foreign currency exchange rate risk

The Euro is the Company's functional currency,

Foreign currency risks mainly result from settlement of international telecommunications traffic and purchase of goods and equipment and primarily consists of GBP and USD exposure. Foreign currency exchange rate risks related to bonds that are not denominated in Euro are hedged into Euro in line with KPN's hedging policies.

As a result of currency fluctuations, the value of subsidiaries operating outside the Eurozone markets could fluctuate and affect KPN's financial position and equity positions from year to year. These translation exposures are not hedged.

Group companies and business operations are obliged to hedge their firm commitments and highly predictable anticipated transactions in non-functional currencies by forward contracts transacted with KPN's Treasury department. Accordingly, Treasury matches and manages the intercompany and external exposures using forward exchange contracts. KPN does not apply hedge accounting for these hedge instruments.

Read more in Note 2 for the accounting policies on foreign currency transactions and Note 8 for the recognized exchange rate differences in the Statement of Profit or Loss.

As of December 31, 2016 more than 98% of cash and cash equivalents was denominated in the functional currency of the related entities. At December 31, 2016 more than 95% of the net amount of trade receivables and more than 90% of the amount of trade payables was outstanding in the functional currency of the related entities.

As of December 31, 2016, KPN carried out a sensitivity analysis with regard to changes in foreign exchange rates for entities with a functional currency different from Euro. All changes in foreign exchange rates and resulting sensitivities do not have a material impact on the Consolidated Statement of Profit or Loss, or Equity, and do not have any impact on the cash flow statement.

### Interest rate risk and interest rate profile

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate as a result of changes in market interest rates. Borrowings, derivatives, cash and cash equivalents are subject to interest rate risk. As KPN has a mix of financial instruments bearing a floating or a fixed interest rate, KPN is subject to risk from movements in interest rates.

Since 2011, the Eurobonds with maturities on September 21, 2020, October 4, 2021 and September 30, 2024 have been swapped to a floating rate based on three-month Euribor using fixed-to-floating interest swaps. KPN initially swapped part of the floating rate exposure back to fixed rates. With regard to interest rate risk exposure, KPN periodically evaluates the desired mix of fixed and floating interest rate liabilities. In May 2015, KPN changed the interest profile for the bonds that had been swapped to a floating rate. KPN swapped the floating rate exposure to a fixed rate for the remaining maturity of the relevant bonds. KPN discontinued fair value hedge accounting as of that date, because that minimized volatility in profit or loss.

As of December 31, 2016, all of KPN's interest-bearing gross debt excluding bank overdraft was at fixed interest rates until maturity of the instrument (2015: 100%). Any interest exposure longer than one year is considered to be fixed. With a view to the existing and forecasted debt structure, KPN's Treasury department could enter into additional future derivative instruments to adjust the mix of fixed and floating interest rate liabilities.

### Other market price risk

KPN does not enter into commodity contracts other than for its own use to meet the Group's expected usage. KPN has entered into energy contracts for own use with a nominal amount of approximately EUR 25 million at December 31, 2016 (2015: EUR 26 million). Read more in Note 30.

### Sensitivity analysis

As of December 31, 2016, KPN carried out a sensitivity analysis with regard to interest rate risk on interest-bearing liabilities (Excl. cash flow hedges). With all other variables held constant, each adverse change of 100 basis points in six-month Euribor would hypothetically on balance not result in higher interest costs per annum (2015: none) because all interest-bearing liabilities carried a fixed interest rate.

### Cash flow hedges

As of December 31, 2016, KPN carried out a sensitivity analysis with regard to interest rate risk and currency on the cash flow hedges. KPN applies cash flow hedge accounting on all bonds not denominated in Euro. With all other variables held constant, KPN calculated the hypothetical impact of changes in interest rates based on various scenarios. This would hypothetically result in a higher or lower value on the

balance of the hedge reserve, which is included in equity attributable to equity holders. In a similar way, KPN calculated the hypothetical impact of changes in the EUR/USD rate and the EUR/GBP rate, holding all other variables constant. The results of the analyses are shown in the table below, indicating the hypothetical impact on the balance of the hedge reserve as at December 31, 2016 and December 31, 2015:

Amounts in millions of EUR (before tax)	Change	GBP		USD		Total
		2016	2015	2016	2015	
Change in interest rate	+2%-point	-29	38	-7	14	-36
	+1%-point	-15	20	-3	8	-18
	-1%-point	17	-22	2	-11	19
	-2%-point	36	-46	3	-25	39
Change in FX rate	+20%-point	132	136	149	145	281
	+10%-point	72	75	81	79	153
	-10%-point	-85	-91	-99	-97	-184
	-20%-point	-192	-205	-224	-218	-416
						-423

Prospective effectiveness testing indicates that all cash flow hedges are expected to be highly effective. As a consequence, the expected impact on the Statement of Profit or Loss is immaterial.

### Derivatives held at fair value

As of December 31, 2016, KPN carried out a sensitivity analysis with regard to the interest rate swaps for which no hedge accounting is applied. All changes in interest rates and resulting sensitivities have only profit or loss impact and no changes in cash flows on the swaps.

Amounts in millions of EUR	Change	2016		2015	
		2016	2015	2016	2015
Changes in EUR interest rates	+2%-point	-10	-13		
	+1%-point	-5	-7		
	-1%-point	5	8		
	-2%-point	10	15		

For a sensitivity analysis on interest rate risk with regard to pensions, read more in Note 23.

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### Offsetting financial assets and financial liabilities

#### Financial assets

The following financial assets of the continuing operations are subject to offsetting, enforceable master netting arrangements and similar agreements:

As at December 31, 2016 Amounts in millions of EUR	Gross amount	Gross amount of financial liabilities set off	Net amount presented in the Statement of Financial Position	Not offset: Financial assets/ liabilities		Not Offset: Cash collateral	Net amount
Cash and cash equivalents	1,179	–	1,179	–1	–	–	1,178
Derivative financial instruments	298	–	298	–	–69	–	229
Trade receivables	77	–38	39	–	–	–	39
Accrued income	58	–	58	–	–	–	58
<b>Total</b>	<b>1,612</b>	<b>–38</b>	<b>1,574</b>	<b>–1</b>	<b>–69</b>	–	<b>1,504</b>

As at December 31, 2015 Amounts in millions of EUR	Gross amount	Gross amount of financial liabilities set off	Net amount presented in the Statement of Financial Position	Not offset: Financial assets/ liabilities	Not Offset: Cash collateral	Net amount
Cash and cash equivalents	1,446	–	1,446	–4	–	1,442
Derivative financial instruments	632	–	632	–20	–147	465
Trade receivables	109	–70	39	–	–	39
Accrued income	61	–	61	–	–	61
<b>Total</b>	<b>2,248</b>	<b>–70</b>	<b>2,178</b>	<b>–24</b>	<b>–147</b>	<b>2,007</b>

#### Financial liabilities

The following financial liabilities of the continuing operations are subject to offsetting, enforceable master netting arrangements and similar agreements:

As at December 31, 2016 Amounts in millions of EUR	Gross amount	Gross amount of financial assets set off	Net amount presented in the Statement of Financial Position	Not offset: Financial assets/ liabilities		Not offset: Cash collateral	Net amount
Derivative financial instruments	198	–	198	–	–24	–	174
Trade payables	89	–32	57	–	–	–	57
Accrued expenses	83	–6	77	–	–	–	77
<b>Total</b>	<b>370</b>	<b>–38</b>	<b>332</b>	<b>–</b>	<b>–24</b>	–	<b>308</b>

As at December 31, 2015 Amounts in millions of EUR	Gross amount	Gross amount of financial assets set off	Net amount presented in the Statement of Financial Position	Not offset: Financial assets/ liabilities	Not Offset: Cash collateral	Net amount
Derivative financial instruments	20	–	20	–20	–56	–56
Trade payables	128	–56	72	–	–	72
Accrued expenses	97	–14	83	–	–	83
<b>Total</b>	<b>245</b>	<b>–70</b>	<b>175</b>	<b>–20</b>	<b>–56</b>	<b>99</b>

For the financial assets and liabilities summarized above, each agreement between KPN and the counterparty allows for net settlement of the relevant financial assets and liabilities when both parties elect to settle on a net basis. If parties choose not to settle on a net basis, the financial assets and liabilities will be settled on a gross basis.

#### Accounting policy: Offsetting financial assets and liabilities

Financial assets and liabilities are offset and reported on a net basis on KPN's Statement of Financial Position only when there is a legally enforceable right to offset the recognized amounts and there is an intention either to settle on a net basis or to realize the asset and settle the liability simultaneously.

### [29] Business combinations and other changes in consolidation

#### Changes in consolidation in 2016

##### Dekatel Nederland B.V.

On June 30, 2016, KPN acquired all issued shares of Dekatel Nederland B.V. (Dekatel). Dekatel is a provider of telecommunication services to the business market in the Netherlands, with a focus on small and medium sized businesses with a special focus on the domestic shipping sector, healthcare institutions and governmental institutions. The acquisition of Dekatel increases KPN's market share in SME and will realize revenue and cost synergies.

The preliminary purchase price allocation for Dekatel resulted in the recognition of net assets of EUR 10 million (mainly customer base of EUR 11 million) and goodwill of EUR 22 million. The purchase price was paid in cash.

Dekatel has been integrated within KPN's Business segment. The goodwill arising from this business combination is non-deductible for tax purposes. The purchase price allocation remains provisional until June 30, 2017, and may be subject to alterations based on additional information about facts and circumstances that existed at June 30, 2016.

Following its consolidation as of June 30, 2016, Dekatel has contributed EUR 5 million to KPN's consolidated revenues and other income and EUR 1 million to KPN's (net) profit attributable to equity holders. Had KPN obtained 100% ownership of Dekatel before January 1, 2016, KPN's Statement of Profit or Loss in 2016 would have shown pro-forma total revenues and other income of EUR 6,810 million and a pro-forma profit attributable to equity holders of EUR 794 million.

#### Glasvezelnet Amsterdam B.V.

KPN had a 70% share in Glasvezelnet Amsterdam B.V. (GNA). GNA was not previously consolidated because KPN did not have control over GNA because certain decisions could only be made in consultation with the other shareholder. In 2016, due to changes in circumstances, a reassessment concluded that KPN had obtained control. Therefore, GNA has been consolidated as of January 1, 2016. Up to December 31, 2015, GNA was classified as an investment in associate (read more in Note 13).

The consolidation following obtaining control has been accounted for as a step acquisition whereby the 70% stake in GNA was remeasured at fair value of EUR 30 million at January 1, 2016, leading to a gain of EUR 13 million in the Statement of Profit or Loss (Other financial results). Subsequently, a purchase price allocation was done leading to the recognition of property, plant and equipment of EUR 60 million, non-current liabilities of EUR 33 million, a non-controlling interest of EUR 8 million and goodwill of EUR 11 million and the derecognition of the 70% stake in GNA. The goodwill is non-deductible for tax purposes. On September 26, 2016, KPN acquired the remaining 30% stake in GNA. This transaction has been accounted for as a transaction between shareholders. A deferred tax asset of EUR 3 million was recorded which relates to tax loss carry forwards.

#### Other changes in consolidation in 2016

On March 31, 2016, KPN acquired a 100% share in Redbee B.V. and FortyTwo B.V. Redbee offers hosting services. FortyTwo offers consultancy, management and audit services related to network and security environments.

These acquisitions are not considered material for KPN, therefore disclosures are limited.

#### Changes in consolidation in 2015

##### Internedservices Group

On July 6, 2015, KPN acquired all issued shares of Internedservices Group (IG). IG is one of the largest managed hosting and cloud services providers in the Netherlands. The acquisition fits within KPN's strategy to further strengthen its position in the Dutch cloud computing market. The acquisition of IG enables KPN to expand its managed hosting capabilities and to complement its existing proposition with cloud-based workspace solutions for small- and medium-sized enterprises.

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The following table summarizes the (finalized) fair value of assets acquired and liabilities assumed, the total consideration and the goodwill at the date control over IG was obtained (July 6, 2015)

All amounts in millions of EUR  
Recognized amounts of identifiable assets acquired and liabilities assumed

Intangible assets [11] <sup>1</sup>	26
Property, plant and equipment [12]	3
Deferred tax assets	1
Net cash and cash equivalents acquired	-
Trade and other receivables	5
Deferred tax liabilities [9]	-7
Non-current borrowings (including loans from Group companies)	-4
Current borrowings	-5
Trade and other payables and deferred income	-7
<b>Total identifiable net assets</b>	<b>12</b>

### Consideration

Purchase consideration paid	65
Fair value of earn-out obligation recognized	20
<b>Total consideration</b>	<b>85</b>
<b>Goodwill</b>	<b>73</b>

<sup>1</sup> Includes a customer base of EUR 25 million.  
[..] Bracketed numbers refer to the related Notes.

As part of the purchase agreement, the former shareholders of IG are entitled to an additional cash payment in 2017. This earn-out obligation depends on IG's performance including acquisitions done by IG until December 31, 2016 (add-on acquisitions), KPN initially recognized an earn-out obligation of EUR 5 million representing management's best estimate of the earn-out obligation at discounted value.

On July 6, 2016, the purchase price allocation was finalized. The earn-out obligation was increased by EUR 15 million (EUR 5 million in 2015 and EUR 10 million in 2016), with a corresponding increase in goodwill, compared to the initial recognition of the earn-out obligation. The increase is based on a revised estimate of IG's performance mainly due to acquisitions done by IG until December 31, 2016.

Changes in the earn-out obligation which are not part of the purchase price allocation are recorded through the Statement of Profit or Loss, which resulted in a gain of EUR 14 million in 2016.

IG has been integrated within KPN's Business segment. The goodwill arising from this business combination is non-deductible for tax purposes. IG contributes to the net increase of KPN's cloud services customer base and has been allocated to KPN's cash-generating unit Business.

Following its consolidation as of July 6, 2015, IG has contributed EUR 13 million to KPN's consolidated revenues and other income and a profit of less than EUR 1 million to KPN's (net) profit attributable to equity holders in 2015. Had KPN obtained 100% ownership of IG before January 1, 2015, KPN's Statement of Profit or Loss in 2015 would have shown pro-forma total revenues and other income of EUR 7,021 million and a pro-forma profit attributable to equity holders of EUR 639 million.

### Other changes in consolidation in 2015

As of April 15, 2015, BASE Company was presented as disposal group held for sale and discontinued operation (read more in Note 19). The sale of BASE Company was completed on February 11, 2016. Read more in Note 32.

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### Accounting policy: Business combinations

KPN uses the acquisition method of accounting to account for business combinations. The consideration paid is measured at the fair value of the assets transferred, equity instruments issued and liabilities incurred or assumed at the date of exchange. The consideration paid includes the fair value of any contingent assets or liabilities resulting from the arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed are measured at their fair values at the acquisition date. When a business combination is achieved in stages, any previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognized in the Statement of Profit or Loss and the equity interest is then considered in the determination of goodwill.

Contingent considerations are recognized at fair value at acquisition date. Subsequent changes to the fair value

of contingent considerations deemed to be an asset or liability are recognized in accordance with IAS 39 'Financial Instruments: Recognition and Measurement' in the Statement of Profit or Loss. Contingent considerations classified as equity are not remeasured and subsequent settlement is counted for within equity.

For each business combination, KPN elects to recognize any non-controlling interest in the acquiree either at fair value or at the proportionate share in the acquiree's net assets. Acquisition-related costs are expensed as incurred. The excess of the consideration paid, non-controlling interests recognized and the acquisition date fair value of any previous equity interests in the acquiree over the fair value of KPN's share of the net assets acquired is recorded as goodwill. If negative goodwill occurs in case of a bargain purchase, the difference is recognized directly in the Statement of Profit or Loss.

## [30] Commitments, contingencies and legal proceedings

### Commitments

	Amounts due by period				
	Less than 1 year	1-5 years	More than 5 years	Total December 31, 2016	Total December 31, 2015
Capital and purchase commitments	780	186	10	976	1,199
Rental and operational lease contracts	129	360	332	821	730
Guarantees	4	2	149	155	171
Other	-	-	-	-	1
<b>Total commitments</b>	<b>913</b>	<b>548</b>	<b>491</b>	<b>1,952</b>	<b>2,101</b>

### Capital and purchase commitments

The capital and purchase commitments mainly relate to minimum contractual obligations with regard to network operations, mobile handsets and telco services.

### Rental and operational lease contracts

For buildings, the majority of contracts included rental fees that are subject to a yearly indexation. Some contracts give KPN an option to buy the property when the landlord wants to sell that property.

For site rentals and mobile towers, the majority of agreements included an option for renewal of the contract and rental fees that are subject to a yearly indexation percentage. In addition,

the majority of contracts can be canceled by KPN only, with a notice period of 12 months.

The minimum non-cancelable sublease amounts expected to be received as at December 31, 2016 amount to EUR 8 million (December 31, 2015: EUR 11 million). These amounts mainly relate to subleases of buildings and site sharing arrangements.

The total net costs of operating leases and rental contracts amounted to EUR 191 million in 2016 (2015: EUR 176 million) and is (mainly) included in other operating expenses in the Statement of Profit or Loss. The operating lease and rental commitments mainly relate to property, plant and equipment.

**Guarantees**

These commitments consist of financial obligations of Group companies under certain contracts guaranteed by KPN. A total amount of EUR 155 million relates to parent guarantees (2015: EUR 157 million).

**Accounting policy: Leases**

Leases where KPN as lessor retains a significant portion of the risks and rewards of ownership of the leased asset are classified as operating leases. The assets remain on the Statement of Financial Position and are depreciated over the asset's useful life. The lease payments received from the lessee are recognized as revenue on a straight-line basis over the lease period.

Payments made by KPN as lessee under operating leases are charged to the Statement of Profit or Loss on a straight-line basis over the period of the lease (net of any incentives received from the lessor). If a sale-and-leaseback transaction results in an operating lease, the profit or loss is calculated using the fair value of the assets sold and recognized in the Statement of Profit or Loss immediately.

Leases where KPN as lessee has assumed substantially all risks and rewards of ownership are classified as finance leases. KPN then recognizes the leased assets on the Statement of Financial Position at the lower of the fair value and the present value of the minimum lease payments. The corresponding rental obligations, net of finance charges, are included in other long-term payables in the Statement of Financial Position. Property, plant and equipment acquired under finance leases are depreciated over the shorter of the asset's useful life and the lease term. If a sale-and-leaseback transaction results in a finance lease, any excess of sale proceeds over the carrying amount is deferred and recognized in the Statement of Profit or Loss over the lease term.

In case KPN acts as lessor in a finance lease, the transaction is accounted for as a normal sale and the present value of the lease payments is recognized as a receivable. The difference between the gross receivable and the present value of the receivable is deferred and recognized as interest over the lease term.

**Contingent liabilities****Legal and tax proceedings**

KPN is involved in a number of legal and tax proceedings that have arisen in the ordinary course of its business, including commercial, regulatory or other proceedings. Periodically KPN carefully assesses the likelihood that legal and tax proceedings

may lead to a legal obligation that may lead to a cash outflow, and recognizes provisions in such cases/matters if and when required. However, the outcome of legal proceedings can be difficult to predict with certainty, and KPN can offer no assurances in this regard.

In some cases, the impact of a legal proceeding may be more strategic than financial and such impact cannot properly be quantified. Below is a description of legal proceedings or contingent liabilities that could have a material impact for KPN.

**Reggefiber**

On October 31, 2014, the ACM approved the acquisition of sole control by KPN. Vodafone appealed the ACM decision at the administrative District Court of Rotterdam. This appeal was denied by the District Court in May 2016, following which Vodafone appealed to the CBb, the highest administrative court. This could result in the confirmation, amendment or annulment of the license from the ACM for the acquisition of sole control by KPN over Reggefiber. There are no precedents where a license has been annulled, but this could eventually result in an obligation on KPN to release control over Reggefiber. KPN is no party in these legal procedures, nor recognized a provision.

**E-Plus**

On June 5, 2015, 1&1 Telecom GmbH and Aidata AG lodged an appeal against the European Commission as regards its merger control decision on the E-Plus transaction between KPN and Telefónica (dated July 2, 2014) and requested the EU Court of Justice to annul the decision. In both appeals, the applicants argue that the decision contains a wrong assessment of the commitments. As KPN is no party in these legal procedures, nor recognized a provision. KPN relies on the available public information.

**Indemnification**

In KPN's Articles of Association and in a further decision by the Board of Management, which was approved by the Supervisory Board, KPN has indemnified the members and former members of KPN's Board of Management and Supervisory Board, as well as a number of KPN's officers and directors and former officers and directors, against liabilities, claims, judgments, fines and penalties incurred by such officer or director as a result of any threatened, pending or completed action, investigation or proceeding (whether civil, criminal or administrative) brought by a third party in relation to acts or omissions in or related to her capacity as officer or director. The indemnification does not apply to claims and expenses reimbursed by insurers, nor to an officer or a director adjudged to be liable for willful misconduct ('opzet') or intentional recklessness ('bewuste roekeloosheid').

Read more in Note 24 for a contingent liability related to idle cables and the accounting policy of provisions.

## › Consolidated Financial Statements

**[31] Related-party transactions**

KPN enters into agreements and transactions with shareholders, joint ventures and associated undertakings for various business purposes, including providing services or financing of operating activities. KPN also enters into such transactions in the ordinary course of business with certain companies or organizations over which KPN, members of the Supervisory Board or Board of Management may have a significant influence. These related-party transactions are described below. KPN considers none of these transactions to be material on an individual basis, except for the transactions with shareholders. Transactions between Group companies are not included in the description as these are eliminated in the Consolidated Financial Statements.

**Transactions with shareholders**

América Móvil, S.A.B. de C.V. ('AMX') published on February 2, 2017, in its fourth quarter 2016 report, that it owned 21.1% of KPN's ordinary share capital at December 31, 2016. The total value of sales transactions by the continuing operations of KPN in 2016 with AMX, its subsidiaries, joint ventures and associated companies amounted to approximately EUR 4 million (2015: EUR 4 million) and the total value of purchase transactions amounted to approximately EUR 13 million (2015: EUR 21 million). The total trade receivables and payables as of December 31, 2016, amounted to approximately EUR 5 million and EUR 4 million respectively (December 31, 2015: EUR 12 million and EUR 11 million respectively).

Pursuant to the Dutch Financial Supervision Act ('Wet op het financieel toezicht' or 'Wft'), legal entities as well as natural persons must immediately notify the Dutch Authority for the Financial Markets (AFM) when a shareholding equals or exceeds 3% of the issued capital.

On October 1, 2014, Franklin Mutual Series Fund, Inc. notified that it held 3.63% of the shares and voting rights related to KPN's ordinary share capital. On April 30, 2015, BlackRock, Inc. notified that it held 5.01% of the shares and 5.87% of the voting rights related to KPN's ordinary share capital. To KPN's knowledge, no other shareholder owned 3% or more of KPN's issued share capital as at December 31, 2016.

KPN did not enter into agreements with AMX or other shareholders which could have a material impact on KPN's Financial Statements.

**Transactions with joint ventures and associated companies**

Associated, non-consolidated companies and joint ventures of KPN sell goods and provide services to consolidated KPN companies. In addition, consolidated KPN companies sell goods or provide services to these associated companies and joint ventures. Read more in Notes 13 and 14.

The total value of sales transactions by the continuing operations of KPN with joint ventures and associated companies in 2016 amounted to approximately EUR 16 million (2015: EUR 24 million) and the total value of purchase transactions amounted to approximately EUR 7 million (2015: EUR 2 million). The total trade receivables and payables as of December 31, 2016, amounted to approximately EUR 4 million and EUR 1 million respectively (December 31, 2015: EUR 8 million and EUR 1 million respectively).

**Transactions with directors and related parties**

For details of the relation between directors and the company, read more in the 'Remuneration Report' on pages 78 to 86 of this Integrated Annual Report. Directors in this respect are defined as key management and relate to those having authority and responsibility for planning, directing, and controlling the activities of an entity, either directly or indirectly. At KPN, key management consists of the members of the Board of Management and Supervisory Board.

In 2016 and 2015, the company was not a party to any material transactions, or proposed transactions, in which members of the Supervisory Board or Board of Management or close members of their families had a direct or indirect material interest.

The total value of sales transactions by KPN's continuing operations in 2016 with parties in which members of the Supervisory Board or Board of Management or close members of their families had a direct or indirect material interest amounted to approximately EUR 14 million (2015: EUR 5 million) and the total value of purchase transactions amounted to approximately EUR 7 million (2015: EUR 5 million), all in the ordinary course of business. The total trade receivables and payables as of December 31, 2016, amounted to approximately EUR 3 million and EUR 2 million respectively (December 31, 2015: EUR 3 million and EUR 2 million respectively).

## [\[32\] Proposed appropriation of result](#)

On outstanding Class B preferred shares, a dividend is paid out equal to the average of the 12-month Euribor increased by 1%. If the 12-month Euribor is no longer determined, the dividend on preference shares will be calculated based on the yield on State loans (Article 35 sub 1, Articles of Association). Subsequently, subject to the approval of the Supervisory Board, the Board of Management will determine what proportion of net income remaining after payment of the dividend on any Class B preferred shares will be appropriated to the reserves (Article 35 sub 2, Articles of Association). The part of the profit remaining after the appropriation to the reserves shall be at the disposal of the General Meeting (Article 35 sub 3, Articles of Association). The Board of Management, with the approval of the Supervisory Board, may also appropriate the complete profit to the reserves.

On February 23, 2017, the Board of Management, with approval of the Supervisory Board, has allocated an amount of EUR 261 million out of the profit of EUR 793 million to the Other reserves. In August 2016, an interim dividend of EUR 3.3ct per share was paid to all holders of ordinary shares (total amount

of EUR 141 million). The Board of Management, with the approval of the Supervisory Board, will propose to the AGM to pay a final dividend of EUR 6.7ct per ordinary share in respect of 2016 (total amount of EUR 285 million, to be increased by dividend on shares issued in 2017 before the ex-dividend date).

In addition, the received dividend over 2015 of EUR 110 million on KPN's shareholding in Telefónica Deutschland Holding AG, was distributed in May 2016, as an additional interim cash dividend of EUR 2.5ct per share (total amount of EUR 106 million). This brings the total dividend in respect of 2016 to EUR 12.5ct per ordinary share.

On April 13, 2016, the Annual General Meeting of Shareholders of KPN approved a capital repayment to shareholders of EUR 28ct per share (read also more in Note 20). This capital repayment was related to the cash proceeds from the sale of BASE Company in February 2016 and the sale of 150 million shares in Telefónica Deutschland in November 2015.

The total dividend in respect of 2015, including the additional interim cash dividend amounted to EUR 11.4ct per ordinary share.

## [\[33\] Legal structure](#)

Name of subsidiaries and other principal interests	Country of incorporation	Percentage ownership/voting interest
KPN B.V.:		
> KPN EuroRings B.V.	The Netherlands	100.0
> XS4ALL Internet B.V.	The Netherlands	100.0
> iBasis Inc.	US	100.0
> Telfort Zakelijk B.V.	The Netherlands	100.0
> Reggefiber Group B.V.	The Netherlands	100.0
> KPN Consulting B.V. (formerly: KPN Corporate Markets B.V.)	The Netherlands	100.0
> KPN Finance B.V.	The Netherlands	100.0
KPN Mobile N.V.:		
> KPN Mobile International B.V.	The Netherlands	100.0
Getronics B.V.:		
> Getronics Finance Holdings B.V.	The Netherlands	100.0
Telefónica Deutschland Holding AG	Germany	15.5

## > Consolidated Financial Statements

## [\[34\] Subsequent events](#)

The company has evaluated events up to publication date of these Annual Financial Statements of this Integrated Annual Report and determined that no subsequent event activity required disclosure.

› Corporate Financial Statements

## Corporate Statement of Profit or Loss

For the year ended December 31

Amounts in millions of EUR	2016	2015
<b>Total revenues and other income</b>	<b>1</b>	<b>-</b>
Personnel expenses	9	8
Other operating expenses	-6	-25
Depreciation, amortization and impairments	-2	-1
<b>Total operating expenses</b>	<b>1</b>	<b>-18</b>
<b>Operating profit</b>	<b>2</b>	<b>-18</b>
Finance income	111	147
Finance costs	-625	-481
Other financial results	71	224
Intercompany interest (net)	-701	-696
<b>Financial income and expenses [A]</b>	<b>-1,144</b>	<b>-806</b>
Income from subsidiaries	1,630	1,264
<b>Profit before income tax from continuing operations</b>	<b>488</b>	<b>440</b>
Income taxes <sup>1</sup>	305	198
<b>Profit for the year</b>	<b>793</b>	<b>638</b>

<sup>1</sup> 2016 includes EUR 16 million with respect to discontinued operations.  
[.] Bracketed letters refer to the related Notes to the Corporate Financial Statements

› Corporate Financial Statements

## Corporate Statement of Financial Position

Before appropriation of results

### Assets

Amounts in millions of EUR	December 31, 2016	December 31, 2015
<b>Non-current assets</b>		
<b>Financial fixed assets</b>		
Investments in subsidiaries	33,335	31,566
Derivatives	298	530
Deferred taxes	1,094	1,003
Other financial fixed assets	1,897	2,309
<b>Total non-current assets [B]</b>	<b>36,624</b>	<b>35,408</b>
<b>Current assets</b>		
Accounts receivable from subsidiaries	173	1,325
Other receivables and accrued income [C]	24	250
Other current financial assets	141	602
Cash and cash equivalents	1,026	1,249
<b>Total current assets</b>	<b>1,364</b>	<b>3,426</b>
<b>Total assets</b>	<b>37,988</b>	<b>38,834</b>

[.] Bracketed letters refer to the related Notes to the Corporate Financial Statements

## › Corporate Financial Statements

**Equity and Liabilities**

Amounts in millions of EUR

	December 31, 2016	December 31, 2015
<b>Equity</b>		
Subscribed capital stock	171	171
Additional paid-in capital	8,651	9,847
Treasury shares reserve	-115	-132
Hedge reserve	-353	-268
Legal reserves [D]	163	506
Retained earnings [D]	-6,798	-6,869
Equity attributable to holders of perpetual capital securities	1,089	1,089
Profit (loss) current year	793	638
<b>Total equity attributable to equity holders</b>	<b>3,601</b>	<b>4,982</b>
<b>Provisions</b>		
Provisions for retirement benefit obligations	52	67
Other provisions	25	22
<b>Total provisions [E]</b>	<b>77</b>	<b>89</b>
<b>Non-current liabilities</b>		
Loans [F]	16,362	17,048
Derivative financial instruments	197	17
Other long-term liabilities	123	201
<b>Total non-current liabilities</b>	<b>16,682</b>	<b>17,266</b>
<b>Current liabilities</b>		
Accounts payable to subsidiaries [G]	16,579	15,269
Derivative financial instruments	1	3
Other current liabilities [H]	844	942
Accruals and deferred income	204	283
<b>Total current liabilities</b>	<b>17,628</b>	<b>16,497</b>
<b>Total equity and liabilities</b>	<b>37,988</b>	<b>38,834</b>

[...] Bracketed letters refer to the related Notes to the Corporate Financial Statements

## › Corporate Financial Statements

**Notes to the Corporate Financial Statements**

As per January 1, 2016, Book 2 of the Dutch Civil Code was amended. Among other things, the exemption of Article 402, which allowed companies to present an abbreviated Corporate Statement of Profit or Loss was removed. The presentation of comparative information has been amended accordingly.

For the principles of recognition and measurement of assets and liabilities and determination of the result for its Corporate Financial Statements, Koninklijke KPN N.V. applies the option provided in Article 362 sub 8, Part 9, Book 2 of the Dutch Civil Code. This means that the principles for the recognition and measurement of assets and liabilities and determination of the result (hereinafter referred to as 'Accounting policies') of the Corporate Financial Statements of Koninklijke KPN N.V. are the same as those applied to the Consolidated Financial Statements under IFRS. The Consolidated Financial Statements have been prepared in accordance with the International Financial Reporting Standards as adopted by the European Union (IFRS). Reference is made to the Notes to the Consolidated Financial Statements.

Investments in consolidated subsidiaries are measured at net asset value. Net asset value is based on the measurement of assets (including goodwill), provisions and liabilities and determination of profit based on the principles applied in the Consolidated Financial Statements.

Investments in which the company has significant influence on the financial and operational policies, but not control (Associates), are accounted for using the equity method. Under the equity method, the investment is initially recognized at cost and the carrying amount is increased or decreased to recognize the company's share of profit or loss of the investment after the date of acquisition. The company's investments in associates include goodwill identified on acquisition.

**[A] Financial income and expenses**

	Amounts in millions of EUR	2016	2015
<b>Finance income</b>		<b>111</b>	<b>147</b>
Interest on borrowings	-395	-477	
Interest on other provisions	-1	-1	
Tender premium	-222	-	
Other	-7	-3	
<b>Finance costs</b>		<b>-625</b>	<b>-481</b>
Book gain sale Telefónica Deutschland shares	-	184	
Amortizable part of hedge reserve	-10	-11	
Amortization discontinued fair value hedges	114	41	
Derivative financial instruments not qualified for hedge accounting	-28	-8	
Exchange rate differences	-	9	
Other	-5	9	
<b>Other financial results</b>		<b>71</b>	<b>224</b>
<b>Intercompany interest (net)</b>		<b>-701</b>	<b>-696</b>
<b>Total</b>		<b>-1,144</b>	<b>-806</b>

## › Corporate Financial Statements

Finance income in 2016 included a dividend received from Telefónica Deutschland of EUR 110 million (2015: EUR 146 million).

In 2016, interest on borrowings decreased by EUR 82 million, which was mainly related to a lower gross debt position.

In September 2016, KPN completed a tender offer, in which KPN repurchased an aggregate principal amount of EUR 1.0 billion across five eurobonds with maturities between 2017 and 2024. The tender premium of EUR 222 million is included in finance costs. This was partly offset by a gain of EUR 66 million from discontinued fair value hedges on the repurchased bonds, which is included in other financial results.

In 2015, KPN recorded a EUR 184 million book gain on the sale of part of its stake in Telefónica Deutschland. Line item Other in Other financial results in 2015 included a gain due to revaluation of the option to acquire the remaining stake of 87.5% in GroupIT B.V.

Intercompany interest (net) mainly includes interest of 8.5% on an intercompany loan provided by KPN Mobile N.V., part of loans payable to subsidiaries (Note F).

### [B] Non-current assets

Amounts in millions of EUR	Group companies	Derivatives	Deferred taxes	Other financial fixed assets <sup>1</sup>	Total
<b>Balance as of January 1, 2015</b>	<b>30,170</b>	<b>312</b>	<b>1,241</b>	<b>2,802</b>	<b>34,525</b>
Exchange rate differences	-2	-	-	-	-2
Income from Group companies after taxes	1,264	-	-	-	1,264
Capital contributions	152	-	-	-	152
Fair value adjustments	-	218	-	362	580
Decrease due to sale	-	-	-	-805	-805
Withdrawals/redemptions	-	-	-	-46	-46
Other <sup>2</sup>	-18	-	-238	-4	-260
<b>Total changes</b>	<b>1,396</b>	<b>218</b>	<b>-238</b>	<b>-493</b>	<b>883</b>
<b>Balance as of December 31, 2015</b>	<b>31,566</b>	<b>530</b>	<b>1,003</b>	<b>2,309</b>	<b>35,408</b>
Exchange rate differences	27	-	-	-	27
Income from Group companies after taxes	1,630	-	-	-	1,630
Capital contributions	9	-	-	-	9
Fair value adjustments	-	-232	-	-382	-614
Other <sup>2</sup>	103	-	91	-30	164
<b>Total changes</b>	<b>1,769</b>	<b>-232</b>	<b>91</b>	<b>-412</b>	<b>1,216</b>
<b>Balance as of December 31, 2016</b>	<b>33,335</b>	<b>298</b>	<b>1,094</b>	<b>1,897</b>	<b>36,624</b>

<sup>1</sup> The fair value adjustment relates to the stake in Telefónica Deutschland.

<sup>2</sup> The amount in line item Other in Deferred taxes mainly relates to the decrease in share price of the stake in Telefónica Deutschland. The deferred tax liability related to Telefónica Deutschland (2015: EUR 106 million) decreased to EUR 67 million. This deferred tax liability was balanced with the deferred tax assets.

### [C] Other receivables

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Accrued income	23	31
Current income tax receivables	-	216
Other receivables	1	3
<b>Total</b>	<b>24</b>	<b>250</b>

### [D] Equity attributable to equity holders

For a breakdown of equity attributable to equity holders, refer to the Consolidated Statement of Changes in Group Equity and the Notes thereto.

### Legal reserves

Legal reserves (net of tax) are presented below:

Amounts in millions of EUR	Revaluation reserve property, plant and equipment	Cumulative translation adjustments	Capitalized software development costs	Fair value reserve available-for-sale financial assets	Other non-distributable reserves	Total
<b>Balance as of January 1, 2015</b>	<b>40</b>	<b>18</b>	<b>162</b>	<b>125</b>	<b>53</b>	<b>398</b>
Exchange rate differences	-	-2	-	-	-	-2
Addition/(release) retained earnings	-9	-	-16	-	1	-24
Other	-	-	-	134	-	134
<b>Balance as of December 31, 2015</b>	<b>31</b>	<b>16</b>	<b>146</b>	<b>259</b>	<b>54</b>	<b>506</b>
Exchange rate differences	-	20	-	-	-	20
Addition/(release) retained earnings	-7	-	-59	-	-48	-114
Other	-	-	-	-249	-	-249
<b>Balance as of December 31, 2016</b>	<b>24</b>	<b>36</b>	<b>87</b>	<b>10</b>	<b>6</b>	<b>163</b>

Pursuant to Dutch law, limitations exist relating to the distribution of equity attributable to equity holders. Such limitations relate to the subscribed capital stock of EUR 171 million (2015: EUR 171 million) as well as to legal reserves required by Dutch law as presented above. The total distributable reserves at December 31, 2016, amounted to EUR 3,267 million (2015: EUR 4,305 million). Dutch law also requires that in determining the amount for distribution, the company's ability to continue to pay its debt must be taken into account, including the EUR perpetual hybrid bonds which are classified as equity under IFRS.

The movements in the fair value reserve available-for-sale financial assets mainly relates to the value of the stake in Telefónica Deutschland (increase in 2015 and decrease in 2016). The remaining balance at December 31, 2016 relates to the stake in Tecnocom (read more in Note 14).

## › Corporate Financial Statements

### Retained earnings

Movements in retained earnings were as follows:

Amounts in millions of EUR	2016	2015
<b>Balance as of January 1</b>	<b>-6,869</b>	<b>-5,803</b>
Profit/loss of previous year	638	-598
Coupon perpetual hybrid bond (net of tax)	-51	-51
Dividend ordinary shares	-460	-485
Actuarial gain/loss pensions and other post-employment plans (net of tax)	-57	47
Release/addition legal reserves	114	24
Acquisitions	-89	-
Fair value adjustment available-for-sale financial assets	-14	-
Other	-10	-3
<b>Balance as of December 31</b>	<b>-6,798</b>	<b>-6,869</b>

Retained earnings can be reconciled with the Consolidated Statement of Financial Position as follows:

Amounts in millions of EUR	December 31, 2016	December 31, 2015
<b>Retained earnings as per Consolidated Statement of Financial Position</b>	<b>-5,859</b>	<b>-6,000</b>
Revaluation reserve	-24	-31
Capitalized software development costs	-87	-146
Other non-distributable reserves	-6	-54
Reclassification fair value adjustment available-for-sale financial assets	-29	-
Profit for the year	-793	-638
<b>Retained earnings as per Corporate Statement of Financial Position</b>	<b>-6,798</b>	<b>-6,869</b>

### [E] Provisions

Movements in provisions were as follows:

Amounts in millions of EUR	Retirement benefit obligations	Other provisions	Total
<b>Balance as of January 1, 2015</b>	<b>66</b>	<b>35</b>	<b>101</b>
Additions/releases to income	2	2	4
Additions/releases directly in OCI	23	-	23
Usage	-24	-15	-39
<b>Balance as of December 31, 2015</b>	<b>67</b>	<b>22</b>	<b>89</b>
Additions/releases to income	3	6	9
Additions/releases directly in OCI	5	-	5
Usage	-23	-3	-26
<b>Balance as of December 31, 2016</b>	<b>52</b>	<b>25</b>	<b>77</b>

The provisions for retirement benefit obligations in 2016 and 2015 relate to early retirement plans. For details, read more in Note 23 to the Consolidated Financial Statements.

### [F] Loans

Loans include bonds outstanding for EUR 6,680 million (2015: EUR 7,501 million) and hybrid bonds outstanding for EUR 1,030 million (2015: EUR 1,088 million). For details, read more in Note 22 to the Consolidated Financial Statements.

Furthermore, the loans also include loans from subsidiaries for EUR 8,652 million (2015: EUR 8,459 million). This mainly relates to a loan payable to KPN Mobile N.V., which bears interest of 8.5% and must be repaid in full, including accrued interest, in 2034. The loan is subordinated to the unsecured and unsubordinated creditors of KPN N.V. but ranks ahead of the hybrid capital securities issued by KPN N.V. as long as by their terms these hybrid capital securities are expressed to rank pari passu with the preference share of KPN N.V. and the preference shares issued by KPN N.V. (if any). There are no loans from subsidiaries with maturity dates in 2017 (2015: EUR 483 million with maturity date in 2016).

### [G] Accounts payable to subsidiaries

Accounts payable to subsidiaries relate to intra-group financial current accounts of EUR 16,755 million, interest to be paid to KPN Mobile N.V. of EUR 185 million and intercompany settlement of net current income tax position of EUR -361 million. The financial current accounts have indefinite duration. The interest is annually determined and based on twelve month Euribor increased by 0.15%, and a risk premium attached by the market to the specific KPN credit risk.

### [H] Other current liabilities

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Current portion of loans	720	829
Social security and other taxes payable	124	109
Bank overdrafts	-	4
<b>Total</b>	<b>844</b>	<b>942</b>

### [I] Commitments and contingencies

Amounts in millions of EUR	December 31, 2016	December 31, 2015
Commitments by virtue of guarantees	155	157

KPN has issued several declarations of joint and several liabilities for various Group companies in compliance with Article 403, Book 2 of the Dutch Civil Code. These declarations of joint and several liabilities for Group companies are included in a complete list of subsidiaries and participating interests, which is available at the offices of the Chamber of Commerce in The Hague.

### Directors' remuneration

Read more in Note 5 to the Consolidated Financial Statements on employee benefits.

The Hague, February 23, 2017

Board of Management	Supervisory Board
Eelco Blok	Duco W. Sickinghe
Jan Kees de Jager	Peter A.M. van Bommel
Frank van der Post	Carlos J. García Moreno Elizondo
Joost Farwerck	Derk J. Haank
	Peter F. Hartman
	Jolande C.M. Sap
	Claudia J.G. Zuiderwijk

> Other Information

# Combined Independent Auditor's Report

Dear Shareholders and members of the Supervisory Board of Koninklijke KPN N.V. (KPN),

Please find below the main conclusions and main features of our audit and review. For the full text of the independent auditor's report, which includes the assurance report on sustainability, please refer to the next pages.

## Summary

### Conclusions

Object of audit or review	Outcome of our work performed
Financial statements 2016 (consolidated and corporate)	True and fair view
<b>Sustainability information 2016:</b> CO <sub>2</sub> emission data 2016 (Scope 1 and 2) of own operations in the Netherlands and the underlying energy data	Reliable and adequate view (reasonable assurance)
Sustainability information 2016 in selected chapters and appendices	Reliable and adequate view (limited assurance)

### Other information, including the Reports by the Board of Management and the Supervisory Board

### Main features of our audit & review

What we have done	Scope of our work	Materiality	Key audit & assurance matters
Audit of financial statements 2016 (consolidated and corporate)	Netherlands Belgium United States of America	EUR 45 million, which represents 2.0% of EBITDA	<ul style="list-style-type: none"> <li>➤ Valuation (in)tangible assets, incl. goodwill</li> <li>➤ Valuation deferred tax assets</li> <li>➤ Sale of BASE Company</li> <li>➤ Reliability of IT systems, including security and cybercrime</li> </ul>
Audit of CO <sub>2</sub> emission data 2016 (Scope 1 and 2) own NL operations and the underlying energy data	Netherlands	5% deviation	<ul style="list-style-type: none"> <li>➤ No areas of specific focus</li> </ul>
Review of sustainability information for 2016 in selected chapters and appendices	Scope varies per country	Specific materiality levels for each element of the sustainability information in scope	<ul style="list-style-type: none"> <li>➤ CO<sub>2</sub> Scope 3 estimates, energy savings by customers</li> <li>➤ RepTrak pulse score, Net Promoter Score</li> </ul>

Procedures for Other information, including Reports by the Board of Management and Supervisory Board

### Combined independent auditor's report on the 2016 financial statements and sustainability information in KPN's 2016 Integrated Annual Report

### Our conclusions

Based on the procedures we have performed and the evidence obtained, we have come to the following conclusions:

- With respect to audit procedures performed; in our opinion, the Consolidated Financial Statements give a true and fair view of the financial position of KPN as at December 31, 2016 and of its result and its cash flows for 2016 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code;
- the corporate financial statements give a true and fair view of the financial position of KPN as at December 31, 2016 and of its result for 2016 in accordance with Part 9 of Book 2 of the Dutch Civil Code;
- CO<sub>2</sub> emission data 2016 (Scope 1 and 2) of own operations in the Netherlands and the underlying energy data as presented in Appendix 7 of the Integrated Annual Report present, in all material respects, a reliable and adequate view, in accordance with the Global Reporting Initiative (GRI) Standards and the supplemental KPN reporting criteria as disclosed in Appendix 3, 'Scope, reporting process and materiality determination', of the Integrated Annual Report.

- With respect to review procedures performed on the sustainability information in scope; in our opinion, nothing has come to our attention that causes us to believe that the sustainability information in scope, in all material respects, does not provide a reliable and adequate view of KPN's policy and business operations with regard to sustainability and the thereto related events and achievements for the year ended December 31, 2016 in accordance with the GRI Standards and the supplemental KPN reporting criteria as disclosed in Appendix 3, 'Scope, reporting process and materiality determination', of the Integrated Annual Report.

- With respect to procedures performed based on the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720, we conclude that the other information included in the Integrated Annual Report, including the Reports by the Board of Management and Supervisory Board:
  - Is consistent with the financial statements and does not contain material misstatements;
  - Contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

### Basis for our conclusions

We conducted our assurance engagements in accordance with Dutch law, including the Dutch Standards on Auditing and the Dutch Standard 3810N 'Assurance engagements relating to sustainability reports'. Dutch Standard 3810N is a subject specific standard under the International Standard on Assurance Engagements (ISAE) 3000 'Assurance Engagements Other Than Audits or Reviews of Historical Financial Information'. Our responsibilities under those standards are further described in the section: 'Our responsibilities' in this report.

We believe the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusions.

### Our Independence

We are independent of KPN in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence)' and other relevant independence regulations in the Netherlands. This includes that we do not perform any activities that could result in a conflict of interest with our independent assurance engagement. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics)'.

### Our scope

#### Our engagements scope

The Integrated Annual Report 2016 (hereafter: the Report) of KPN consists of the financial statements and other information, including Reports by the Board of Management and Supervisory Board, that provides altogether an overview of the policy, activities, events and performances related to both the financial position and the sustainable development of KPN during reporting year 2016. The following information in the Report has been in scope for our assurance engagements:

- The consolidated financial statements, comprising:
  - The Consolidated Statement of Financial Position as at December 31, 2016;
  - The Consolidated Statements of Profit or Loss, Other Comprehensive Income, Changes in Group Equity and Cash Flows for 2016;
  - The Notes comprising a summary of the significant accounting policies and other explanatory information.

## > Other Information

> The corporate financial statements, comprising:

- > The Corporate Statement of Financial Position as at December 31, 2016;
- > The Corporate Statement of Profit or Loss for 2016;
- > The Notes comprising a summary of the accounting policies and other explanatory information.

> The sustainability information in scope consists of:

- > Reasonable assurance - CO<sub>2</sub> emission data 2016 (Scope 1 and 2) of own operations in the Netherlands and the underlying energy data as presented in Appendix 7;
- > Limited assurance - The sustainability information in the following chapters and appendices:
  - > Chapters: 'KPN at a glance', 'Group performance' (excluding paragraph 'Compliance & Risk'), 'Our organization and suppliers' (excluding paragraph 'Corporate Governance');
  - > Appendices: Appendix 2-9. This includes the CO<sub>2</sub> scope (Scope 3) emissions in Appendix 7 'Environmental figures'.

> The other information, including the Reports by the Board of Management and Supervisory Board, included in the Report pursuant to the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720 concerning our obligation to report about the management board report and other information.

### Limitations in our engagements scope

The sustainability information in the Report contains prospective information, such as ambitions, strategy, targets, expectations and projections. Inherent to this information is that actual future results may differ and are therefore uncertain. We do not provide any assurance on the achievability and feasibility of prospective information.

Further, the references in the sustainability information in the Report ([www.kpn.com](http://www.kpn.com), external websites, interviews and movies on KPN's website and other documents) are outside the scope of our assurance engagements.

**Our scope for the group audit of the financial statements**  
 KPN is head of a group of entities, both in the Netherlands and abroad. The Dutch entities and segments thereby form the majority of the business and there are relatively smaller operations in Belgium (sold in the course of 2016) and the United States of America. The financial information of all these entities has been included in the Consolidated Financial Statements.

Our group audit mainly focused on the more significant segments in the Netherlands, including 'Consumer', 'Business', 'Wholesale' and 'NOI' as well as 'Basis' (United States of America).

Due to their significance and/or risk characteristics, we

performed full-scope audit procedures on the financial information of all above mentioned segments. For the segment in the United States of America, we used EY component auditors who are familiar with local laws and regulations to perform detailed audit procedures to obtain sufficient coverage for financial statement line items from a consolidated financial statements perspective.

Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained, as a basis for our opinion on the group financial statements as a whole. The group engagement team has visited the component team.

At other group entities we performed review procedures or specific audit procedures. The group consolidation, financial disclosures and a number of complex items were audited by the group engagement team at the company's head office. These included revenue assurance, purchase price allocation, taxation, fixed assets and goodwill impairment, pensions, derivative financial instruments, hedge accounting and share-based payments. We involved several EY specialists to assist the audit team, including specialists from our tax, valuations, sustainability, actuarial and treasury departments.

By performing audit procedures at segment and at corporate level as mentioned above, together with the involvement of specialists, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the Consolidated Financial Statements.

## Reporting criteria

The information in the scope of our engagements needs to be read and understood together with the reporting criteria, for which KPN is solely responsible for selecting and applying, taking into account applicable law and regulations related to reporting. The criteria used for the preparation of the Report and thus relevant for our examination are described below. We consider the reporting criteria used relevant and suitable for our assurance engagements.

### Consolidated Financial Statements:

International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and Part 9 of Book 2 of the Dutch Civil Code.

### Corporate Financial Statements, Report by the Board of Management and the Supervisory Board:

Part 9 of Book 2 of the Dutch Civil Code.

### Sustainability information including the CO<sub>2</sub> emission data 2016 (Scope 1 and 2) and the underlying energy data:

GRI Standards ('comprehensive' option) of the Global Reporting Initiative (GRI), the Greenhouse Gas Protocol (WRI/WBCSD) and the supplemental reporting criteria developed by KPN as disclosed in Appendix 3, 'Scope, reporting process and materiality determination' of the Report.

## Materiality

### General:

The scope of our assurance procedures is influenced by the application of materiality. Our assurance engagements aim to provide assurance about whether the financial statements and the sustainability information in scope are free from material misstatement. Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the (economic) decisions of users taken on the basis of the Report. The materiality affects the nature, timing and extent of our assurance procedures and the evaluation of the effect of identified misstatements on our conclusions.

### Financial statements:

For the audit of the financial statements our considerations regarding the materiality are as follows.

#### Materiality

EUR 45,000,000

#### Benchmark used

2.0% of earnings before interest, tax, depreciation and amortization (EBITDA).

#### Additional explanation

The users of the financial statements of a for-profit entity typically focus on operating performance, particularly profit before tax. Over the past years KPN's profit before tax heavily fluctuated, resulting from the impact of the discontinuance of operations and other non-recurring transactions. Furthermore, we note that in KPN's external communications, earnings before interest, tax, depreciation and amortization (EBITDA) is commonly used to report on financial performance. Considering these aspects, we have concluded that EBITDA is the most appropriate and stable benchmark for KPN to base our materiality upon. The materiality is thereby set at EUR 45,000,000, using a percentage of 2.0%, which is at the lower end of a generally accepted range. Last year we used a percentage of 1.5% because it was our first year audit and we felt more comfortable using a lower percentage.

We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Supervisory Board that misstatements in the financial statements in excess of EUR 2.25 million, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

At December 31, 2016 there were no remaining audit differences to be booked.

### Sustainability information:

For the assurance procedures concerning the sustainability information in scope as a whole and for each KPI and disclosure we have considered the factors that influence their relevance and accuracy for the users of the Report. Based on our professional judgment, we determined the materiality for

## > Other Information

the identified key performance indicators at 5% deviation. For CO<sub>2</sub> emission data 2016 (Scope 1 and 2) of own operations in the Netherlands and the underlying energy data we have determined the materiality also at 5% deviation. We compared the qualitative disclosures at overall level with the quality principles of the GRI Standards ('comprehensive' option), which concern aspects such as balanced representation, timeliness and consistency of the Report.

### **Other information, including the Reports by the Board of Management and Supervisory Board:**

With respect to the materiality applied to our procedures performed on the other information in our capacity as auditor of KPN and with the knowledge that we have as auditor to conclude whether the other information would not be appropriate or obviously incorrect;

- > where the other information contains information that has also been in scope of our assurance engagements regarding the financial statements or sustainability information, similar materiality for this information has been applied;
- > In other cases, our assessment for materiality was based on findings that could influence the decisions of the users dependent on our evaluation of the relevance of that information for these users.

## Key audit & assurance matters

Key audit and assurance matters are those matters that, in our professional judgment, were of most significance in our assurance procedures for the financial statements and the sustainability information in scope. We have communicated the key audit and assurance matters to the Supervisory Board. The key audit and assurance matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our assurance procedures for the financial statements and the sustainability information in scope as a whole and to conclude thereon, and we did not take exception to any of the key audit or assurance matters mentioned below.

### **General observation:**

For the audit of the financial statements, we rely on KPN's internal control framework and its governance. This framework has been enhanced in 2014 and all material financial income statement balances and balance sheet components are now part of the framework. In 2016, the last revenue cycle of the Business market and corporate tax were added. The framework is maintained by the business and continuously tested by KPN Risk & Compliance and KPN Audit. The Management Board and Audit Committee are being informed of the outcome of the tests performed on a quarterly basis. For purposes of our audit, we assess the adequacy of the framework and we test the work of KPN Risk & Compliance and KPN Audit. We believe that KPN's internal control

framework meets the required criteria and it allows us to perform a system based audit in an effective manner.

The key audit matters addressed below are all covered by KPN's internal control framework and have been audited by us with satisfactory results. For the interest of the reader, we highlight the most important elements we focused on in 2016.

### Key audit matter

### How our audit addressed the matter

#### Valuation of (in)tangible assets, including goodwill

Under IFRS, it is required to annually test the amount of goodwill and intangible assets with an indefinite life for impairment. KPN's disclosures about goodwill and intangible assets are included in Note 11.

On assets with finite lives an impairment test has to be performed if indications of impairment exist. A triggering event was identified regarding the valuation of the goodwill of iBasis that required an impairment test. Based on the test results an impairment was recognized in Q1 2016. In addition there were a couple of triggering events identified, for example in the area of hardware and software that required impairment testing and for which minor impairments were recorded.

The impairment tests were important for our audit as the related asset amounts are significant and the assessment process itself is complex and requires judgment. The impairment test includes assumptions that are affected by future market or economic conditions.

Our audit procedures included, among others, using EY valuation experts to assist us in verifying the assumptions and methodologies used by KPN. We compared forecasted revenue and profit margins for all cash generating units with the approved KPN strategic plans. We also verified the assumptions to which the outcome of the impairment test is most sensitive and reviewed the sensitivity analysis as included in Note 11 of the Financial Statements.

### Key audit matter

### How our audit addressed the matter

#### Valuation of deferred tax assets

At December 31, 2016, the deferred tax assets are valued at EUR 1.1 billion, related disclosures are included in the summary of significant accounting policies and in the notes to the consolidated statement of profit or loss in Note 9. This item was significant to our audit because the assessment process is complex and judgmental and is based on assumptions that are affected by expected future market or economic conditions.

The main element in the deferred tax assets is related to the discontinuance of the German activities. Based on an agreement with the Dutch tax authorities, the loss on the sale of E-Plus ('stakingsverlies' and future liquidation loss) can be off-set against future taxable profits in the Netherlands.

Our audit procedures related to the deferred tax assets included, amongst others, using EY tax specialists to assist us in verifying and interpreting the agreement ('vaststellingsovereenkomst') reached with the Dutch tax authorities and evaluating the assumptions, such as expected future taxable income and methodologies used by the company.

This entailed reviewing the company's latest approved strategic plan. We discussed the business plan with management and determined the reasonableness of the assumptions used regarding the recoverability of the deferred tax assets and assessed the plan's assumptions and sensitivities. See Note 9.

### Key audit matter

### How our audit addressed the matter

#### Sale of BASE Company NV

On April 20, 2015, KPN announced an agreement to sell the Belgian BASE Company to Telenet. EU approval was obtained on February 4, 2016. The sale of BASE Company was completed on February 11, 2016.

BASE Company has been eliminated from the segment disclosures but the 'profit for the year from discontinued operations' in the consolidated statement of profit or loss and 'cash flows from discontinued operations' include results related to BASE Company until February 11, 2016 amounting to EUR 367 million.

Our audit included assessing the transaction and its documentation and determining if the classification as discontinued operations was appropriate and in line with applicable accounting standards.

In our audit procedures, we verified that the result for the year 2016 of BASE Company has been properly included in KPN's result for the year and that the settlement at completion date has been accounted for in accordance with the share and purchase agreement.

### Key audit matter

### How our audit addressed the matter

#### Reliability of IT systems, including security and cybercrime

At KPN, processes are highly automated and KPN continuously invests in simplification and improvement of IT systems, which has led to several changes in 2016 that have been discussed on page 37. Reliability and security of IT systems are thereby high on the agenda of KPN and for that purpose KPN's internal control framework includes several controls to ensure, inter alia, proper identity, access and change management of its IT systems. KPN also has a security team in place focusing on policies, security management and a team of ethical hackers. This team tests the security of KPN's IT environment and imitates behavior of hackers to stay continuously up to date with the latest developments and helps KPN in managing their own security risks, including cybercrime.

As part of our audit, we have reviewed the quality of KPN's IT systems and the controls embedded therein with a purpose to express an opinion on the financial statements. For this purpose, we performed our own procedures and reviewed and tested the work done by KPN Risk & Compliance and KPN Audit. Since this is highly specialized work, our audit team includes IT specialists. As part of our testing, we reviewed change management procedures, access management procedures, the continuity of IT systems and we reviewed the implementation of new IT systems. In a few instances, situations were identified where controls needed improvement and KPN has set-up remediation procedures that we have also reviewed and tested with satisfactory results.

For the assurance procedures concerning the sustainability information in scope, we identified the following key assurance matter:

### Key assurance matter

### How our assurance procedures addressed the matter

#### Estimations and assumptions in CO<sub>2</sub> Scope 3 and energy savings by customers

Inherent to the nature of CO<sub>2</sub> scope 3 and energy savings by customers is that they are to a large extent based on the use of estimates and underlying assumptions.

Our review procedures focused on understanding the models used, assessing the reasonableness of the assumptions, including by substantiation with underlying sources and assessing the mathematical accuracy of the calculations applied. We have also assessed whether the disclosure is adequate.

#### Disclosure of methodology for RepTrak pulse score (reputation) and Net Promoter Score in the Netherlands (customer satisfaction)

The indicators above are identified by KPN as part of their representation of key achievements. The indicators are measured by third parties. The outcome is influenced by the methodology used by the third party.

Our review procedures focused on reviewing whether the methodology used by the third party is suitable and assessing whether the transparency on the methodology in the Report is sufficient for a proper understanding by the reader.

## > Other Information

### Report on other legal and regulatory requirements

#### Engagement

We were engaged by the Supervisory Board as auditor of Koninklijke KPN N.V. on April 9, 2014, as of the audit for the year 2015 and have operated as statutory auditor since that date.

#### Responsibilities

##### Responsibilities of Board of Management and the Supervisory Board

The Board of Management (hereafter: management) is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code, and for the preparation of the other information, including the Report by the Board of Management in accordance with Part 9 of Book 2 of the Dutch Civil Code and the other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Management is also responsible for the preparation of the sustainability information in accordance with the GRI Standards (Comprehensive option) and the supplemental reporting criteria of KPN, including the identification of stakeholders and the determination of material topics. The choices made by management in respect of the scope of the Report and the reporting criteria are set out in the section entitled "Appendix 3, Scope, reporting process and materiality determination" in the Report.

Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the Report that is free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. Management should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's (financial) reporting process.

#### Our responsibilities

Our objective is to plan and perform the assurance assignment in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusions.

Our assurance procedures aimed at obtaining reasonable assurance have been performed with a high, but not absolute, level of assurance, which means we may not have detected all material errors and fraud. The assurance procedures performed in obtaining limited assurance are aimed on the plausibility of information which does not require exhaustive gathering of evidence as in engagements focused on reasonable assurance. The performed procedures consisted primarily of making inquiries of management and others within the entity, as appropriate, applying analytical procedures and evaluating the evidence obtained. Consequently a review engagement provides less assurance than an audit.

The Hague, February 23, 2017

Ernst & Young Accountants LLP

Signed by G.A.M. Aarnink

### Annex to the Combined Independent Auditor's Report

#### Work performed

We have exercised professional judgment and have maintained professional skepticism throughout the assurance engagements, in accordance with Dutch Standards on Auditing and the Dutch Standard 3810N for assurance on sustainability information, ethical requirements and independence requirements.

Our audit to obtain reasonable assurance about the financial statements (consolidated and corporate) included the following:

- › Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- › Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- › Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- › Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.
- › Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.
- › Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Our main procedures to obtain limited assurance about the sustainability information in the selected chapters and annexes included the following:

- › Performing an external environment analysis and obtaining an understanding of the sector, relevant social themes and issues and the characteristics of the organization.
- › Evaluating the appropriateness of the reporting policy and its consistent application, including the evaluation of the results of the stakeholders' dialogue and the reasonableness of management's estimates.
- › Evaluating the design and implementation of the systems and processes for data gathering and processing of sustainability information as presented in the Report.
- › Interviews with management and relevant staff at corporate and local levels responsible for the sustainability strategy, policies and performance.
- › Interviews with relevant staff responsible for providing the sustainability information in the Report, carrying out internal control procedures on the data and the consolidation of the data in the Report.
- › Selected site visits to review the source data and the design and implementation of controls and validation procedures at local level.
- › Evaluating internal and external documentation, in addition to interviews, to determine whether the sustainability information in the Report is adequately substantiated.
- › Performing analytical review of the data and trend explanations submitted for consolidation at group level.
- › Assessing the consistency between the sustainability information and the information in the Report not in scope for our assurance engagements.
- › Assessing whether the sustainability information has been prepared 'in accordance' with the GRI Standards ('comprehensive' option).

In addition to the procedures mentioned above, for CO<sub>2</sub> emission data 2016 (Scope 1 and 2) of own operations in the Netherlands and the underlying energy data we performed following to obtain reasonable assurance:

- › Assessing the systems and processes for data gathering, including testing the design, existence and the operating effectiveness of the relevant internal controls during the reporting year.
- › Conducting analytical procedures and substantive testing procedures on the relevant data.
- › Assessing the processing of other information, such as the aggregation process of data into the information as presented in the sustainability information.
- › Investigating internal and external documentation to determine whether the sustainability information in the Report is reliable.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed on the other information is less than the scope of those performed in our audit of the financial statements.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the assurance procedures and significant findings, including any significant findings in internal control that we identify during our assurance procedures.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine those matters that were of most significance in the audit of the financial statements, the review of the sustainability information in scope and the audit of the CO<sub>2</sub> emission data 2016 (Scope 1 and 2) of own operations in the Netherlands and the underlying energy data of the current period and are therefore the key audit & assurance matters. We describe these matters in our combined independent auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

> Appendices

## Appendix 1. Alternative performance measures

In the discussion of KPN's financial results, a number of alternative performance measures (non-GAAP figures) are used to provide readers with additional financial information, that is regularly reviewed by management. These non-GAAP figures should not be viewed as a substitute for KPN's financial results as determined in accordance with IFRS, which are presented in KPN's Financial Statements. Also, the additional information presented is not uniformly defined by all companies, including KPN's peers. Therefore, the non-GAAP figures presented may not be comparable with similarly named numbers and disclosures by other companies. In addition, readers should be aware that certain information presented is derived from amounts determined under IFRS, but is not in itself an expressly defined GAAP measure. Such non-GAAP measures should not be viewed in isolation or as an alternative to an equivalent GAAP measure.

KPN's management considers these non-GAAP figures, combined with GAAP performance measures and in conjunction with each other, most appropriate to measure the performance of the Group and its Segments. The non-GAAP figures are used by management for planning, reporting (internal and external) and incentive purposes.

KPN's main non-GAAP figures are explained below.

### EBITDA

KPN defines EBITDA as operating result before depreciation (including impairments) of PP&E and amortization (including impairments) of intangible assets. Note that KPN's definition of EBITDA deviates from the literal definition of earnings before interest, taxes, depreciation and amortization and should not be considered in isolation or as a substitute for analyses of the results as reported under IFRS as adopted by the European Union.

Amounts in millions of EUR	2016	2015
<b>Total revenues and other income</b>	<b>6,806</b>	<b>7,008</b>
Cost of goods & services	2,131	2,209
Personnel expenses	1,175	1,260
Information Technology / Technical Infrastructure	517	535
Other operating expenses	554	680
<b>Total operating expenses</b>	<b>4,377</b>	<b>4,684</b>
<b>EBITDA</b>	<b>2,429</b>	<b>2,324</b>

### Adjusted revenues and adjusted EBITDA

Adjusted revenues and adjusted EBITDA, together also referred to as the adjusted results, are derived from revenues (including other income) and EBITDA, respectively, and are adjusted for the impact of restructuring costs and incidentals. Incidentals are non-recurring transactions which are not directly related to day-to-day operational activities over EUR 5 million unless significant for the specific reportable segment.

### Revenues

(in millions of EUR)	FY 2016 reported	Incidentals	FY 2016 adjusted	FY 2015 reported	Incidentals	FY 2015 adjusted	△ y-on-y reported	△ y-on-y adjusted
Consumer	3,139	–	3,139	3,095	–	3,095	1.4%	1.4%
Business	2,303	–	2,303	2,482	-10	2,492	-7.2%	-7.6%
Wholesale	763	26	737	730	–	730	4.5%	1.0%
Network, Operations & IT	17	–	17	16	–	16	6.3%	6.3%
Other (incl. eliminations)	-170	–	-170	-161	–	-161	5.6%	5.6%
<b>The Netherlands</b>	<b>6,052</b>	<b>26</b>	<b>6,026</b>	<b>6,162</b>	<b>-10</b>	<b>6,172</b>	<b>-1.8%</b>	<b>-2.4%</b>
iBasis	867	–	867	920	–	920	-5.8%	-5.8%
Other activities	4	–	4	35	–	35	-89%	-89%
Intercompany revenues	-117	–	-117	-109	–	-109	7.3%	7.3%
<b>KPN Group</b>	<b>6,806</b>	<b>26</b>	<b>6,780</b>	<b>7,008</b>	<b>-10</b>	<b>7,018</b>	<b>-2.9%</b>	<b>-3.4%</b>

The following table specifies the revenue incidentals in more detail:

Revenue incidentals (in millions of EUR)	Segment	FY 2016	FY 2015
Revenue-related provision	Business	–	-10
Change in revenue-related provisions	Wholesale	26	–
<b>KPN Group</b>		<b>26</b>	<b>-10</b>

## > Appendices

The following table shows the key items between reported and adjusted EBITDA for the full year.

### EBITDA

(in millions of EUR)	FY 2016 reported	Incidentals	Restruc- turing	FY 2016 adjusted	FY 2015 reported	Incidentals	Restruc- turing	FY 2015 adjusted	△ y-on-y reported	△ y-on-y adjusted
Consumer (contribution margin)	1,871	-8	-13	1,892	1,797	-	-12	1,809	4.1%	4.6%
Business (contribution margin)	1,382	14	-14	1,382	1,468	-11	-36	1,515	-5.9%	-8.8%
Wholesale (contribution margin)	536	26	-	510	495	-	-3	498	8.3%	2.4%
Network, Operations & IT (cost center)	-1,143	-	-19	-1,124	-1,187	6	-16	-1,177	-3.7%	-4.5%
Other (incl. eliminations)	-244	-	5	-249	-272	-	-8	-264	-10%	-5.7%
<b>The Netherlands</b>	<b>2,402</b>	<b>32</b>	<b>-41</b>	<b>2,411</b>	<b>2,301</b>	<b>-5</b>	<b>-75</b>	<b>2,381</b>	<b>4.4%</b>	<b>1.3%</b>
iBasis	23	-	-	23	23	-	-	23	0.0%	0.0%
Other activities	4	14	-4	-6	-	10	-25	15	n.m.	n.m.
<b>KPN Group</b>	<b>2,429</b>	<b>46</b>	<b>-45</b>	<b>2,428</b>	<b>2,324</b>	<b>5</b>	<b>-100</b>	<b>2,419</b>	<b>4.5%</b>	<b>0.4%</b>

The following table specifies the EBITDA incidentals in more detail:

EBITDA incidentals (in millions of EUR)	Segment	FY 2016	FY 2015
Change of provision	Consumer	-8	-
Change of provisions	Business	14	-1
Changes in revenue-related provisions	Business	-	-10
Changes in revenue-related provisions	Wholesale	26	-
Release of asset retirement obligation	Network, Operations & IT	-	6
Release of pension provision	Other activities	14	-
Release of provisions	Other activities	-	10
<b>KPN Group</b>		<b>46</b>	<b>5</b>

### Simplification savings or Simplification program

KPN's Simplification program is directed at realizing run-rate savings in both capital expenditures and operating expenses (opex). The Simplification program is aimed at innovation Capex and the operating expense categories Personnel expenses, Information Technology / Technical Infrastructure expenses and Other operating expenses, excluding restructuring costs and incidentals. Through its nature the program will also result in a reduction of FTE's. The base-line for measurement of the Simplification savings is Capex and operating expense levels at the end of 2013. The base-line is adjusted for major changes in the composition of the Group in the years 2014-2016 (Acquisitions and disposals). KPN finalized the first wave of the Simplification program in Q4 2016, realizing opex and Capex run-rate savings of approximately EUR 460 million and 2,072 FTE reductions since the end of 2013.

### Free Cash Flow ('FCF')

FCF is defined as cash flow from continuing operating activities plus proceeds from disposals of PP&E, minus capital expenditures (Capex), being investments in PP&E and software.

Amounts in millions of EUR	2016	2015
<b>Net cash flow provided by operating activities from continuing operations</b>	<b>1,924</b>	<b>1,996</b>
Capex	-1,193	-1,300
Proceeds from real estate	10	2
<b>Free cash flow from continuing operations</b>	<b>741</b>	<b>698</b>

### Operating free cash flow

Operating free cash flow is defined as adjusted EBITDA minus Capex.

Amounts in millions of EUR	2016	2015
<b>Adjusted EBITDA</b>	<b>2,428</b>	<b>2,419</b>
Capex	-1,193	-1,300
<b>Operating free cash flow</b>	<b>1,235</b>	<b>1,119</b>

### Net Debt / EBITDA ratio

In the Net Debt / EBITDA ratio, KPN defines Net Debt as the nominal value of interest bearing financial liabilities excluding derivatives and related collateral, representing the net repayment obligations in Euro, taking into account 50% of the nominal value of the hybrid capital instruments, less net cash and short-term investments. The EBITDA in this context is Normalized EBITDA, a 12-month rolling total EBITDA

excluding restructuring costs, incidentals and major changes in the composition of the Group (acquisitions and disposals). The calculation of the Net Debt/EBITDA ratio is provided in Note 28 of the Financial Statements.

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## Appendix 2. Overview of CSR targets and achievements

Theme/KPI	Target 2016	Result 2016	Result 2015	Result 2014	Target 2017	Target 2018 and beyond	Related Sustainable Development Goal
<b>Transparent and reliable service provider</b>							
NPS NL	8	6	3	-3	9	>15 in 2020	Industry, Innovation & Infrastructure
NPS Consumer Mobile	12	10	9	2	13		Industry, Innovation & Infrastructure
NPS Consumer Residential	12	10	9	2	13		Industry, Innovation & Infrastructure
NPS Business	0	-3	-10	-13	0		Industry, Innovation & Infrastructure
<b>Best in class networks</b>							
Weighted downtime reduction	-30%	+55% <sup>1</sup>	-61%	n/a	-30%		Industry, Innovation & Infrastructure
%Households with possibility for more than 100 Mb connection	85%	75%	68%	4 million	78-80%	85% in 2020	Industry, Innovation & Infrastructure
The average 4G download speed	n/a	51 Mbps	50 Mbps in cities	n/a	40 Mbps		Industry, Innovation & Infrastructure
<b>Healthcare of the Future</b>							
# of elderly facilitated to live independently	14,000	11,317	n/a	n/a	15,500	Self-reliance for ~160.000 end-users in 2020 with smart monitoring services	Good Health and Wellbeing
# of ill people facilitated with self-measurement solutions	14,000	12,245	n/a	n/a	17,500	In 2020 significant contribution to decreasing healthcare costs of cardiac patients by innovative ECG-measurements	Good Health and Wellbeing
% of chronically ill children provided with a KPN Klasgenoot	100%	100%	837	540	100%	100% in 2018	Good Health and Wellbeing
<b>The New Way of Living &amp; Working</b>							
% of KPN employees in the Netherlands who feel they can work in line with The New Way of Living & Working	90%	82%	80%	78%	90%	90% in 2018	Decent Work and Economic Growth
Growth in the Netherlands of the use of services that make The New Way of Living & Working possible	25% compared with 2015	33% compared with 2015	39% compared with 2014	43% compared with 2013	40% compared with 2016		Sustainable Cities and Communities

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Theme/KPI	Target 2016	Result 2016	Result 2015	Result 2014	Target 2017	Target 2018 and beyond	Related Sustainable Development Goal
<b>Energy efficient</b>							
Energy savings by customers as % of KPN Group's own use (energy reduction effect of KPN products/services for customers) <sup>2</sup>	80%	54%	49%	47%	55%	>80% in 2020	Climate Action
Circular operations and services	Formulate O-situation and define smart targets	Scope and targets 2017 / 2025 defined	First steps towards circular operations (cradle to cradle)	n/a	Completion of circularity manifest with 3 major partners / vendors representing substantial amount of spend.	New equipment in networks, offices and for KPN owned devices close to 100% circular as from 2025. For customer owned equipment a circular alternative will be available.	Climate Action
% reduction of energy consumption KPN Group compared with 2010	19%	20%	18%	17%	21%	25% in 2020 55% in 2030	Climate Action
Climate neutral own operations	stay climate neutral	climate neutral for own operations	climate neutral for own operations		Stay climate Neutral	Climate neutral until 2050: from 2030 without compensations for car-fuels (science based target)	Climate Action
CO <sub>2</sub> reduction in the chain (Scope 3)	n/a	12% compared with 2014	n/a	n/a	roadmap reducing Scope3 emissions	20% reduction emissions in 2025 compared to 2014 50% reduction scope 3 emissions in 2040 compared to 2014 (science based target)	Climate Action
<b>Privacy &amp; Security</b>							
% of Dutch people that believe their data is safe with KPN	71%	70%	73%	69%	70%	70% until 2020	
KPN Privacy statement accessible for the blind, visually impaired, deaf and hearing impaired and can be accessed on mobile devices	n/a	n/a	n/a	n/a	n/a	May 2018	Reduced Inequalities
<b>Our people</b>							
Overall % of women at KPN in the Netherlands	30%	24%	25%	24%	25%	The year in which the 30% ambition must be reached will be decided in 2017,	Gender Equality
Employee survey score on Engagement and Sustainable employability (Fit for the Future)	Engagement > 75% Sustainable employability/Fit for the future: > 65%	Engagement > 77% Sustainable employability/Fit for the future: > 58%	1) Overall engagement: 77% 2) Working environment: 59% 3) Strategy & Leadership: 51%	Engagement: 70% Sustainable employability: 56%	Engagement: 75%	Engagement: >75% in 2018	Decent Work & Economic Growth
Sustainable employability: % of employees with a new job < 1 year after leaving KPN	82%	87%	83%	~80%	82%	>80% in 2018	Quality Education
<b>Suppliers</b>							
% realized improvements on corrective action plans	50%	77%	58%	n/a	60%	70% in 2018	Partnerships for the Goals/Responsible Production and Consumption

1 In 2016, we had 55% more downtime than in 2015, mainly due to delays in getting our technical experts on site because of bugs in our own resource planning system.

2 In 2016, we did not meet our target of avoided energy use by customers. We improved the calculation method, using more accurate statistics for our calculation of avoided emissions and energy consumption by our customers. Read more about this on p.51

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## Appendix 3. Scope, reporting process and materiality determination

### Scope sustainability information

The purpose of the sustainability information in our Integrated Report (including the GRI index and social and environmental figures appendices as published on our website), covering the calendar year 2016, is to inform our stakeholders about our role in society, in connection with our main strategic objectives and targets. We regard as stakeholders all people and organizations affected by our operations or with whom we maintain a relationship, such as customers, employees, shareholders, banks, suppliers, journalists, partners and social organizations. For more information on our stakeholder approach for specific stakeholder groups, see Appendix 9, Stakeholder overview.

The scope of the sustainability information in this report, GRI index and social and environmental figures (appendices) covers the KPN Group including subsidiaries in which KPN has a majority shareholding. The scope has not changed compared with last year's report. Unless stated otherwise, references to KPN should be read as referring to the KPN Group. In this report (including the GRI index and social and environmental appendices published on our website), KPN the Netherlands refers to all the activities of the KPN Group in the Netherlands. Outside the Netherlands, our divisions are iBasis and Ortel Mobile. For our non-financial information, we include new acquisitions in our report as of the first full year of ownership. Non-financial information for divestments that occurred during the reporting year is excluded for the full year. The data in this report refers to KPN's performance and not to that of our subcontractors, unless stated otherwise. The full scope of the financial information is reported in the Consolidated Financial Statements (page 89 to 165).

This report specifically reviews developments and performance in 2016 and is based on topics identified as highly material for KPN. Aspects of a more static nature (such as our management approaches to our CSR themes and our stakeholders) or with less reporting priority (such as our impact on biodiversity and the list of external memberships) are included in the GRI index [www.kpn.com/annualreport](http://www.kpn.com/annualreport) or reported on <http://corporate.kpn.com/dutch-society.htm>.

### Reporting process sustainability information

The Integrated Report is published on February 23, 2017. We have prepared this report in line with the International Integrated Reporting Council (IIRC) Integrated Reporting (IR) framework. For the sustainability information included in

this report we followed the Global Reporting Initiative (GRI) Standards - Option Comprehensive. In anticipation of national implementation of the EU Directive Non-Financial Reporting, we have considered the key elements of the Directive. We already address most of the elements to be in compliance with the new Directive and are working on the other elements.

The Option - Comprehensive of the GRI Standards means that KPN reports on all general standard disclosures and all specific standard disclosures related to identified material topics. The process for defining the material topics and report content, as well as the list of material topics, is described in the materiality determination (see 'materiality determination' in this Appendix). The results of this assessment (list of material topics for KPN, including their reporting priority) determine which GRI indicators are set out in the Integrated Report and which indicators are featured only on our website or in our GRI index. The overview can be found in the GRI index in appendix 8, GRI index. In addition to these GRI Standards, KPN has included the pilot version of the Telecommunications Sector Supplement, as published by GRI in 2003, in determining material disclosures, resulting in five additional topics and indicators in the GRI Index. For one highly material topic, customer loyalty, KPN uses and reports bespoke performance indicators, as outlined in the GRI Index.

The GRI Index specifies the aspect boundaries and omitted indicators where relevant (including clarifications). In the Integrated Report, there are no departures of any significance from the GRI standard disclosures. This report shows the performance indicators applicable to the KPN Group. Where relevant, the appendices contain specified data per KPN business unit: KPN the Netherlands and other subsidiaries of the KPN Group. Where available and relevant, the report includes data for previous years. Quantitative data concerning the workforce and financial results set out in this report has been collected using our financial data management system. The remaining data set out in this report has been collected using a standardized questionnaire that was completed by the responsible KPN business units. The Internal Audit and Corporate Control departments used consistency and availability of supporting evidence as the basis for their assessment of the data reported at group level. Validation criteria set out in advance were also used to assess the data.

#### External Assurance

In order to provide our stakeholders comfort over the reliability of our reporting, we engaged EY to perform an assurance engagement with the aim of obtaining reasonable assurance on CO<sub>2</sub> emission data 2016 (Scope 1 and 2) of KPN's own

operations in the Netherlands and the underlying energy data as disclosed in Appendix 7 and limited assurance on other sustainability information as disclosed in KPN at a Glance, Group Performance (excluding paragraph Compliance & Risk), Our organization and suppliers (excluding paragraph Corporate governance) and Appendix 2, Overview of CSR targets and achievements; Appendix 3, Scope, reporting process and materiality determination; Appendix 4, Glossary; Appendix 5, KPN Business Model; Appendix 6, Social figures; Appendix 7, Environmental figures (this includes CO<sub>2</sub> emissions scope 3); Appendix 8, GRI Content Index and Appendix 9, Stakeholder overview. Appendices 5-9 to the Integrated Annual Report are only included on [www.kpn.com/annualreport](http://www.kpn.com/annualreport). The references in the sustainability information in the Integrated Annual Report ([www.kpn.com](http://www.kpn.com), external websites, interviews and movies on KPN's website and other documents) are outside the scope of the assurance engagement.

The key social and environmental figures, which are available in the appendices 6 and 7 on [www.kpn.com/annualreport](http://www.kpn.com/annualreport), are also part of this report. Partly, they provide more detailed numbers on key figures that reflect on highly material topics within the report (such as CO<sub>2</sub>-emissions and electricity consumption).

The report contains prospective information, such as ambitions, strategy, targets, expectations and projections. Inherent to this information is that actual future results may be different from the prospective information and therefore it may be uncertain. Therefore, the assumptions and feasibility of this prospective information is not covered by the external assurance.

#### Changes compared to 2015

In 2015, we reported on 30 material topics. During 2016 we brought more focus, by assessing which topics matter most to KPN and our stakeholders (see for more information on the change of material topics the materiality determination in this Appendix). This resulted in a 'core & more' approach. The report is built around our nine highly material topics (the core), with more information about the less material topics in Appendices to the report or online on the KPN Integrated Report website. Other changes that were made compared to 2015:

- > Introduction of the chapter 'Our Purpose' to emphasize the Why of KPN
- > Next step in the SWOT analysis, focusing on more specific trends and more information on the way we act on them
- > A descriptive note on the value we create
- > A shorter and more condensed remuneration report
- > Introduction of a quantified value proposition
- > A clear connection to the Sustainable Development Goals wherever applicable

In 2016, we chose to discontinue two CSR KPIs as of 2017. Those KPIs will no longer be included in our set as communicated in Appendix 2. These KPIs are:

- Best-in-class networks:  
> % of the Netherlands that agree that KPN has the best ICT Infra
- Privacy & Security:  
> % customers opted-in for using their traffic data for commercial, operational and customer service goals

The main reasons are changes in strategy.

#### Reporting ambitions

- > KPN adheres to several reporting benchmarks, like the Dow Jones Sustainability Index (DJSI) and the Transparency Benchmark. By doing this, we keep improving our performance and our way of reporting by comparing it with that of peers and expectations from the industry and other stakeholders. Our reporting ambitions for the following years are: Keep reporting according to the IIRC framework and GRI standards
- > Keep reporting on the most material topics
- > Report more on qualitative and quantitative value creation for society
- > Maintain a leading position in several benchmarks like the Dow Jones Sustainability Index (DJSI) and the Transparency Benchmark

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### Scoping and calculation methodologies environmental figures

#### Calculation methodology avoided energy consumption by ICT services

We improved the calculation tool to calculate the estimated avoided energy consumption and avoided emissions from using a number of our services using more accurate statistics and during the update we also corrected an error in the calculation. The results are presented on page 51 and in Table 8 of Appendix 7, Environmental Figures. In scope in the calculations are: Teleworking (enabled by KPN Connectivity), KPN Audio Conferencing, KPN Colocation (Housing), KPN Hosting, KPN iTV cloud solution, KPN Workstations (KPN Werkplek), KPN Video Conferencing and Dematerialization of DVDs, CDs and newspapers (enabled by KPN connectivity). For teleworking, audio conferencing, KPN Werkplek and video conferencing, the avoided energy consumption and carbon emissions are primarily caused by avoided travel (by car or by public transport). For colocation and hosting, the reduction is caused by better cooling energy efficiency (PUE) of KPN data centers compared with the average cooling energy efficiency of server rooms at customers' premises. In all calculations, the rebound effects are also taken into account. For instance, when working at home in the case of teleworking, extra electricity and gas for heating are used. The calculations of the estimates of the avoided energy consumption and avoided emissions are validated by Ecofys, who supports KPN in developing and improving the calculations. For each service, KPN volumes and reference values are defined and with this data the estimated avoided energy consumption and avoided carbon emissions are calculated.

These KPN volumes and reference values are based on several sources:

- > Actual measurements (by KPN, by customers or other sources)
- > Publicly available data and statistics from governments, research institutes, and sector organizations (e.g. CBS, GeSI, ITU, CarbonTrust)
- > External expertise from consultancy firms Scenario analyses based on KPN's savings calculation tool
- > Expert judgments (KPN product management and other sources)

The service with the largest saving impact is Teleworking enabled by KPN connectivity. This accounts for 79% of the total estimated avoided energy consumption in 2016 (1,817 PJ) and 76% of the total avoided CO<sub>2</sub>e-emissions (146 kTon CO<sub>2</sub>e). See Table 8 in Appendix 7 Environmental Figures. The calculation is based on a large set of parameters. For instance: the total number of teleworkers in the Netherlands, the average commuting distance in the Netherlands, the (average) number of days working from home and the KPN marketshare in broadband connections. Most parameters are based on publicly available statistics and reports from CBS<sup>1</sup>

(Centraal Bureau voor de Statistiek of the Dutch government), KiM<sup>2</sup> (Kennisinstituut voor Mobiliteitsbeleid - Ministry of Infrastructure and Environment), TNO<sup>3</sup> (Dutch organisation for applied scientific research) and Telecompaper Research<sup>4</sup>.

For some parameters there are different values available, sometimes also because of different measurement approaches. The approach in those cases was to take the average between the lowest reported value and the highest reported value in reports and research. This was done for the following parameters:

Number of telecommuters in 2016, the saved office space due to teleworking and the extra energy consumption at home when working at home (rebound effect). This approach gives a stable and conservative approach and a more accurate figure. Therefore we also restated the values for 2014 and 2015.

And at last the finally chosen parameter values were compared with the values other telco's use. E.g. the values British Telecom uses are publicly available. And there are also reports available by GeSI (Global e-Sustainability Initiative) with carbon abatement factors in different countries. These comparisons show that our parameter values are conservative and will give credible figures of the estimated energy and carbon emission savings by Teleworking.

For the saving calculations of Audioconferencing and video conferencing the main input parameters is the number of audio/video conferences in the reporting year. And we determined the number of people attending a meeting (average over all meetings) with our product-management department and with customer interviews. For videoconferencing the rebound effect of the electricity consumption of the Video conferencing equipment is taken into account

For the saving calculations of colocation (Housing) and hosting services the main inputs are the EOY values of the service volume (in MW), the PUE of the server rooms at customers premises and the (average) PUE of KPN's datacenters. For dematerialization of DVDs, CDs and newspapers (enabled by KPN connectivity) the savings are calculated by determining the amount of hard copy CDs, DVDs and newspapers that have been replaced by digital media (Spotify, Netflix, VoD, etc) and multiplying this with the energy consumption included in the lifecycle of these products.

The avoided energy consumption for iTV is the result of the lower electricity consumption of an iTV set-top box (STB) without a hard drive. The recordings are not locally stored but in the KPN Cloud. The rebound effect of the additional electricity consumption for KPN (for storage, etc.) are taken into account. The avoided energy consumption of KPN Workstations has been calculated by multiplying the number of customers using the service with the energy they can save while working 10% of their time on a tablet or smartphone instead of on a laptop.

#### Calculation and determination of reported emissions

In the Integrated Report, KPN reports the CO<sub>2</sub>-emissions in chapter environmental performance and in Appendix 7. Reporting is done in accordance with the guidance and standards of the Greenhouse Gas Protocol (e.g. GHG Protocol scope 2 guidance GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard) and the ISO 14064-1 standard. KPN uses the operational control approach when reporting CO<sub>2</sub>-emissions. Carbon dioxide (CO<sub>2</sub>) is the most relevant greenhouse gas to KPN. Where available, we have

Scope CO <sub>2</sub>	Standard	Scope	Coverage	Approach	Location / Market based	Level of Assurance	Emissionfactor / Green energy
Scope 1	GHG Protocol scope 1 Guidance	KPN Group	99% of all KPN business units and subsidiaries (opex/fte)	Operational control approach	Location based	NL: Reasonable Non.NL: Limited	www.co2emissiefactoren.nl Tank to Wheel Compensation: Gold standard & forest compensation
Scope 2	GHG Protocol scope 2 Guidance	KPN Group	99% of all KPN business units and subsidiaries (opex/fte)	Operational control approach	Location based	NL: Reasonable Non.NL: Limited	www.co2emissiefactoren.nl Tank to Wheel 100% green electricity
Scope 3 Cat: 1, 2, 5, 9	GHG Protocol scope 3 Guidance	Netherlands excl. Reggefiber	98% of all KPN business units and subsidiaries (opex/fte)	Spend based : Environmentally Extended Input Output data (EEIO) approach	Market based	Limited	UK DEFRA 2014
Scope 3 Cat: 3, 6, 7, 11, 13	GHG Protocol scope 3 Guidance	Netherlands excl. Reggefiber	98% of all KPN business units and subsidiaries (opex/fte)	Operational control approach	Process based	Limited	Cat3: Well to Tank www.co2emissiefactoren.nl
Scope 3 Cat: 4, 8, 10, 12, 14, 15	GHG Protocol scope 3 Guidance	Netherlands excl. Reggefiber	98% of all KPN business units and subsidiaries (opex/fte)	Not applicable for KPN	Process based	Limited	Not applicable

This is only applicable for biomass. The gross emissions disclosed in table 5 of Appendix 7 are location based and calculated with emissions factors of the Netherlands.

The KPN emissions report is subdivided as follows:

#### Scope 1 – Direct emissions due to:

- > Fuel consumption of the lease vehicle fleet (employees' passenger vehicles and commercial vehicles)
- > Heating of buildings (gas)
- > Consumption of coolants for air conditioning and/or cooling
- > Fuel consumption of emergency power generators

#### Scope 2 – Indirect emissions due to:

- > Electricity consumption of the fixed and mobile networks, datacenters, offices and shops
- > District heating
- > District cooling

taken CH<sub>4</sub> and N<sub>2</sub>O into consideration in our greenhouse gas emissions information. We use the term 'CO<sub>2</sub>-emissions' to refer to the greenhouse gas emissions reported on. These are stated in CO<sub>2</sub> equivalents. The scope 2 emissions are product based and calculated based on the TTW (Tank to Wheel) CO<sub>2</sub>-emissions factors for renewable electricity. For renewables (wind, biomass, solar) the TTW-values are all zero. The CO<sub>2</sub>-emissions of the WTT (Well to Tank) phase are accounted for in our scope 3 emissions (category 3 – Fuel and energy related activities).

#### Scope 3 – Other indirect emissions due to:

- > Emissions in our upstream value chain (during the production phase of our products, services and equipment at our suppliers)
- > Emissions in our downstream value chain (during the use phase including recycling and disposal of the products, services and equipment).

#### Methodology Calculation scope 1 and 2 emissions

##### 1. Activities

Emissions (CO<sub>2</sub> and HFCs) are calculated based on all the activities of the KPN Group. Most of the energy (85%) relate to activities that use electricity, 11% is related to the fuel for our leased vehicles and 4% is related to gas for heating. Energy and fuels used for heating and/or cooling and for emergency power cover only a minor part of our energy consumption and our emissions. As virtually all the emissions are of CO<sub>2</sub>, details of this are given below. KPN reports on energy consumption,

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energy reduction programs and energy efficiency improvement in the chapter Environmental Performance and in Appendix 7.

### 2. Coverage

99% of all KPN business units and subsidiaries are covered in the reported energy consumption and carbon emission figures. This is based on the yearly performed assessment in which (small) subsidiaries are assessed on basis of materiality (operational expenditures < 1% of KPN total opex and /or number of FTEs < 1% of KPN total FTEs). In total the subsidiaries of which the environmental figures are not reported are less than 1% of KPN's total opex and /or total number of FTEs.

### 3. Emission factors

The CO<sub>2</sub>-emissions are calculated by multiplying the consumption data for each activity by the CO<sub>2</sub>-emission factors for each unit of consumption. These emission factors are updated annually. The source for our scope 1 and 2 CO<sub>2</sub>-calculationfactors is the Dutch website [CO<sub>2</sub>emissiefactoren.nl](http://co2emissiefactoren.nl)<sup>5</sup>. This website is an initiative of the Dutch Ministry of Infrastructure and Environment, Milieucentraal, Stichting Klimaatvriendelijk Aanbesteden & Ondernemen (SKAO), Stimular and Connekt. The website contains all necessary actual CO<sub>2</sub>-calculationfactors.

### 4. Accuracy

The accuracy of the consumption data is a key factor in the reliability of the CO<sub>2</sub>-emissions calculations. In the data collection process, a number of factors affect the accuracy of the collected data. In general, the data originating from direct measurements and recordings, such as summaries from energy and other suppliers and direct invoices, are the most accurate. Data may also be estimated or calculated, using assumptions and expert opinions.

As electricity providers estimate our electricity consumption for a part of our network operations, and do not in all cases perform a meter reading monthly, some uncertainty exists about the accuracy and completeness of our energy consumption. As this uncertainty cancels out over the years once actual meter readings are processed by our energy suppliers, we use energy consumption data from invoices as a basis to report our energy consumption and greenhouse gas emissions. Since we are migrating to remotely readable meters on all sites the accuracy is improving.

For the data collection and auditing, KPN uses several internal audit measures to minimize the risk of incomplete and incorrect reporting of consumption data.

### Scope 3 emissions

Scope 3 emissions are calculated for KPN's operations in the Netherlands and excluding Reggefiber so they cover 98% of fte/opex. Of all 15 scope 3 categories six categories are not

applicable; for the remaining 10 categories, the emissions have been calculated for our operations in the Netherlands. See for more information table 7 in Appendix 6, Environmental Figures.

#### Spend based calculations:

Categories (Purchased goods and services (CAT1) and, Capital goods (CAT2) Waste generated in operations (CAT5) and Downstream Transportation and Distribution (CAT9) are spend based calculated. These calculations are based on procurement data (supplier spend) combined with emission factors obtained from the Environmentally Extended Input Output data (EEIO) approach. We use the most recent available emission factors (g CO<sub>2</sub> per GBP spend) published by DEFRA. We convert the GBP values to Euros and take inflation into account. We used the ISIC classification (International Standard Industrial Classification of All Economic Activities) for the correct mapping of specific suppliers or supplier categories to a category in the supply chain emission factors list of DEFRA, when applicable. Emissions of transportation of equipment, forward to customer and backward to KPN, are accounted in the category Downstream transportation and distribution. In this category, all our activities of our Logistic Service Partners (LSPs) are accounted for.

#### Process based calculations:

Categories: CAT3 Fuel and energy related activities, CAT6 Business travel, CAT7 Employee commuting, CAT11 Use of sold products, CAT13 Downstream leased assets. The calculations are calculated 'process based', so based on actual activity and data.

For fuel based emissions we use the Well-totank (WTT) emissions factors for the applicable sources. Per biomass type we used the corresponding emission factor. Employee commuting emissions were based on own research on average commuting distance of KPN employees that are registered to participate in the new way of working. Emissions for downstream leased assets are based on total annual electricity consumption of our installed equipment at the customer premises (such as modems for internet access and set-top boxes). This equipment remains the property of KPN and KPN is also responsible for recollecting the equipment in the event of swaps, defects or ending of the subscription.

For details of the individual scopes, we refer to the environmental indicators in the 2016 GRI index in Appendix 8.

- 1 e.g. CBS reports "Onderzoek verplaatsingen in Nederland 2015" and "Werkzame Bevolking 2015"
- 2 e.g. KiM report "Mobiliteitsbalans 2013"
- 3 Reports NAE 2015 "Nationale Arbeidsmarkt Enquete 2015" (research of TNO together with CBS)
- 4 Telecompaper research report Dutch Broadband Q3 2016
- 5 <http://co2emissiefactoren.nl/>

## Other calculation methodologies

### RepTrak

RepTrak is developed by the Reputation Institute and is used as a method to calculate the reputation score of companies worldwide. The RepTrak methodology measures also the drivers of reputation and the consequences for supportive behaviour. Reputation Institute's policy is to adjust all RepTrak scores by standardizing them against the aggregate distribution of all scores obtained from the RI's Annual Global RepTrak Pulse. Standardization has the effect of lowering scores in countries that tend to over-rate companies, and has the effect of raising scores for companies in countries that tend to rate companies more negatively.

All RepTrak scores are culturally standardized. This means that all RepTrak results are comparable across countries, industries and over time. Every month the progress on the key attributes that stimulate reputation and supportive behavior is measured. The results are based on a minimum of 300 respondents per company each quarter. The data collection method is an online interview of 20 minutes. The qualified respondents has to be familiar or very familiar with the company. Per January 1, 2011 Reputation Institute started using an updated cultural bias adjustment procedure whereby the cultural adjustment analysis was rebased based on the latest reputation scores. Because KPN was already in the midst of the process of setting KPIs, KPN requested Reputation Institute to report KPN's reputation scores using the 'old' cultural bias adjustment analysis. Hence, this report shows 'unrebased' reputation scores for KPN. KPN yearly reports the December score in the Integrated Report.

### Net Promoter Score (NPS)

We use NPS as the leading indicator to measure customer loyalty. The NPS results included in this report are calculated and provided by a leading market research company in the Netherlands.

NPS is based on direct customer input, with the key question whether a customer would recommend KPN to someone else. Depending on the score they give, the customer is classified as a 'promoter' or 'critic'. The NPS is calculated by subtracting the percentage of 'critics' from the percentage of 'promoters'. The result is displayed as an absolute number instead of a percentage, within a range of -100 to +100.

In this report all NPS results refer to Q4 of the respective year, based on a 3-month rolling average (Dec-16 is based on Oct-16, Nov-16 and Dec-16). The NPS Consumer Residential, NPS Consumer Mobile and NPS Business reflect a weighted average based on sales. The main score, NPS NL, is the average of the three segment NPS scores.

### True Value

For the first time in 2016, we initiated a study to identify,

measure and monetize the wider environmental, social and economic impacts of NWLW at KPN The Netherlands over 2015. The external developed, proprietary methodology used is based on calculating value created for society by identifying an organization's most significant externalities. A framework is used to classify externalities as social or environmental and as either positive (bringing benefits to society) or negative (imposing costs on society). To express externalities in financial terms, a range of financial modeling tools, techniques and data sources is used.

### 100 Mbps access

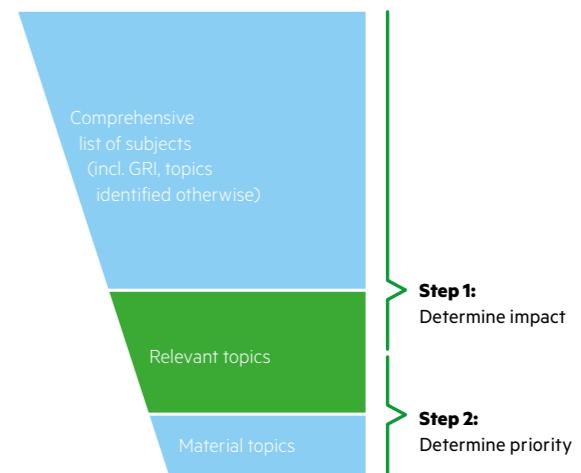
The KPI "%Households with possibility for more than 100 Mb connection" applies to households with the possibility to get access to internet speeds of minimal 100 Mbit per second. The reported percentage is calculated by dividing the number of households to whom this applies to by the total number of households in the Netherlands.

The download speed that we measure is the speed that our network operator is able to deliver to the service provider. The KPI is measured monthly. In this report the results are based on the situation in December 2016.

This KPI was introduced in 2014. In 2014 we published the actual number of households, in 2015 both the number and the percentage and from 2016 we only disclose the percentage of households.

This KPI is a successor of the KPI % Households with possibility for more than 40 Mb connections. During all the years that we published those KPIs, we always published December figures.

## Materiality determination



The annual materiality assessment is the basis for determining the report content and is performed before the Integrated

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Report is compiled. The assessment is approved by the Board of Management. The process consists of three steps:

### **Step 1: Identification of relevant aspects and other topics**

The goal of the first step is to create a gross overview of relevant CSR topics. In this process, KPN annually updates a comprehensive list of topics based on GRI guidelines and the pilot version of the Telecommunication Sector Supplement, as published by GRI in 2003. Where relevant, missing topics are added, including topics identified during media scans and stakeholder dialogues. Following the update of the list, KPN assesses the relevance of each of the topics. Relevant topics are those on which KPN has or can have an impact (inside the organization and in the value chain or society). This is determined based on stakeholder input and KPN's own experience. The outcome is an overview of all relevant topics. In 2015, we already updated the relevant topics.

This resulted in less topics and a change in naming topics. We went from 52 to 30 topics. In 2016, we again looked at the relevant topics and adjusted them by looking at significance to KPN, stakeholders or the value chain. The change resulted in topics that are most relevant to KPN and its business. This is done in line with stakeholder expectations and the GRI as a basis. The most important changes are:

- > From 30 to 21 relevant topics
- > A lot of topics are combined, because of strong links and similar goals:
  - > Compliance, anti-corruption and anti-competitive behavior: Compliance & Risk
  - > Sustainable employment, training & education and health & safety of employees: Sustainable employment
  - > Energy use operations, emissions operations, water use, material use operations and e-waste: Environmental performance
  - > Indirect economic impact and impact of products and services on social and environmental issues: Impact of products and services

### **Step 2: Determining reporting priority**

The second step aims to assess the reporting priority of all relevant topics, which is presented graphically and used not only to determine the contents of the Integrated Report but also as input to determine our (CSR) strategy, policies and approach.

KPN determines the reporting priority by reviewing all relevant topics on: (1) significance of the topic for KPN and (2) significance of the topic for key stakeholders. This review is performed using nine criteria, which are relevant to KPN and based on GRI. The priority determination is done by the following process:

To determine the significance for stakeholders of each topic in 2016 we used the following steps:

- > Desk research based on several external research, media scans, and other relevant documents.
- > Comparison with peers

- > Average of outcomes and biggest differences compared with 2015 taken into account for 2016 assessment

To determine the significance for KPN of each topic in 2016, we used the following steps:

- > Internal sessions held with employees from different sections of KPN
- > Rankings determined by the same employees and discussed during sessions

- > Taken into account the strategy, mission and vision of KPN
- > Average of rankings and biggest differences compared with 2015 taken into account for 2016 assessment

The result of this second step is an overview of all material topics for KPN, which is supported by current stakeholder expectations. The materiality chart combines the two aspects schematically. The combination of the horizontal axis (significance to KPN) and the vertical axis (significance to stakeholders) determines the degree of influence that the topic has on our reputation and therefore the reporting priority.

KPN divides the results into three categories:

- > Highly material topics: we aim to fulfill a leading role on these topics and translate them into our core CSR themes and additional themes. Our Integrated Annual report is largely based on these topics.

- > Medium material topics: we want to demonstrate our social responsibility regarding these topics. We report on them in our GRI index, additional policy documents and/or on our website.
- > Low material topics: these are topics we monitor, but do not report on.

Our materiality determination is based on the complete list of general and sector-specific aspects provided by GRI. As said, we translated the list into topics relevant for KPN. In order to see where the aspect can be found and which GRI aspects are translated into KPN topics, please see the cross-reference on the next page. For our high material topics, we made a cross-reference with our strategic choices and KPIs. The topics that do not correspond with a strategic choice, are highly material for our reporting process.

Changes in priority compared to 2015:

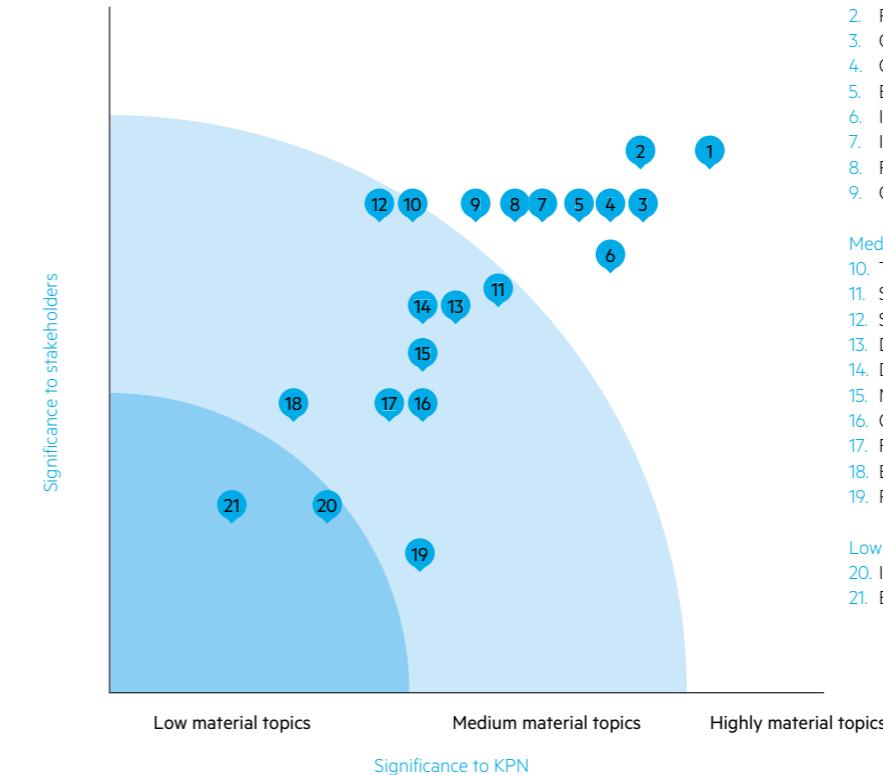
- > Sustainable Employment and Sustainable Suppliers: from high to medium
- > Participation in public policy development: from low to medium
- > Fair marketing communications: from low to medium
- > Diversity and equal opportunity: from high to medium

### **Step 3: Implementation**

Based on the priority outcomes of the materiality determination (approved by the BoM), we determine the topics to be addressed in the report, including the scope and aspect boundaries of all material topics. Business units are informed on new and altered topics to be acted and reported on, to prepare reporting systems, enhance

internal mechanisms, develop reporting definitions and, where relevant, targets. Timelines are developed and new/ altered topics are included in the relevant reporting process mechanisms (financial/HR data management systems or CSR questionnaires).

### **Materiality assessment**



#### Highly material topics

1. Direct economic value
2. Privacy & Security
3. Customer loyalty
4. Quality and reliability of network
5. Environmental performance
6. Innovation and investments
7. Impact of products and services
8. Remuneration
9. Compliance & Risk

#### Medium material topics

10. Tax policy
11. Sustainable Employment
12. Sustainable suppliers
13. Digital inclusion
14. Diversity and Equal Opportunity
15. Non-Discrimination
16. Community investment
17. Fair marketing communications
18. Electromagnetic fields/radiation
19. Participation in public policy development

#### Low material topics

20. Internal human rights issues
21. Biodiversity

Highly material topic	Where to find in our IR	Corresponding KPIs	Corresponding GRI topic	Medium material topic	Where to find in our IR	Corresponding GRI topic
Direct economic value	p. 28		Economic Performance	Sustainable employment	p. 58	Employment Labor/Management Relations Occupational Health and Safety Training and Education
Privacy & Security	p. 40	- % of Dutch people that believe their data is safe with KPN - KPN Privacy statement accessible for the blind, visually impaired, deaf and hearing impaired and can be accessed on mobile devices	Customer Privacy Secure use of Products and Services	Sustainable suppliers	p. 60	Supplier Environmental Assessment Freedom of Association and Collective Bargaining Child Labor
Customer loyalty	p. 22	- NPS Consumer Mobile - NPS Consumer Residential - NPS Business - NPS NL	Marketing and Labeling Digital Divide	Tax policy	p. 31	Economic performance
Quality and reliability of network	p. 24	- The average 4G download speed - % of households with possibility for more than 100 Mb connection - Weighted downtime reduction (compared to last year YTD)	Indirect Economic Impacts ICT Infrastructure Investments Digital divide Technological Applications ICT	Digital inclusion	p. 23	Digital Divide
Impact of products and services	p. 48	- # of elderly facilitated to live independently - # of ill people facilitated with self-measurement solutions - Growth in products that make the New Way of Living and Working possible - Energy savings by customers as % of KPN Group's own use	Indirect Economic Impacts Customer Health and Safety Technological Applications ICT Digital Divide	Diversity and equal opportunity	p. 59	Diversity and Equal Opportunity
Environmental performance	p. 44	- % Reduction of energy consumption KPN Group compared with 2010 - Circular operations and services - Climate Neutral own operations - CO <sub>2</sub> reduction in the chain (scope 3)	Materials Energy Emissions Effluents and Waste Environmental Compliance	Non-discrimination	p. 59, p. 61	Non-discrimination
Innovation and investments	p. 26		Indirect Economic Impacts Customer Health and Safety ICT Infrastructure Investments Technological Applications ICT	Community investment	p. 23	Economic Performance
Remuneration	p. 78		Governance	Fair marketing communications	p. 52	Marketing and Labeling
Compliance and risk	p. 52		Anti-corruption Anti-competitive Behavior Environmental Compliance Marketing and Labeling Socioeconomic Compliance	Electromagnetic fields/radiation	<a href="http://corporate.kpn.com/company-kpn/csr/telephones-masts-and-health.htm">http://corporate.kpn.com/company-kpn/csr/telephones-masts-and-health.htm</a>	Electromagnetic Fields
				Participation in public policy development	Appendix 9, p. 1	Stakeholder Engagement Public Policy

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# Appendix 4. Glossary

This glossary lists the key terms and concepts included in the Integrated Annual Report. Appendix 3 describes the foundations of the reporting process, including methodologies used.

**2G**

Second Generation Mobile System, which is based on the GSM universal standard.

**3G**

Third Generation Mobile System, which is based on the UMTS universal standard.

**4G**

Fourth Generation Mobile System, a standard for wireless communication delivering high-speed data for mobile phones and data terminals.

**4G+**

4G+ provides additional wireless capacity and speed than traditional 4G, by aggregating 4G's 800 MHz frequencies with other 1800 MHz frequencies.

**4G average download speed**

The average download speed is based on the results of a speedtest that customers initiate on 4G with their smartphone. Robot measurements and customers that use other networks than KPN's are excluded from the results.

**4G coverage**

Coverage of the 4G mobile network. The coverage depends on the subscribers situation. KPN measures its 4G coverage by checking four different situations (urban, suburban, in-car and outdoor) in any given location.

**A****Access lines**

Access lines are the total number of traditional voice and VoIP connections provided to customers of KPN's Business segment as of the end of the specified period.

**ACM**

The Netherlands Authority for Consumers and Markets (ACM) acts as a regulator in the Netherlands and is responsible for monitoring compliance with anti-trust rules.

**ADR**

American Depository Receipt.

**Adjusted revenues and adjusted EBITDA**

Adjusted revenues and adjusted EBITDA are derived from revenues (including other income) and EBITDA, respectively, and are adjusted for the impact of restructuring costs and incidentals. Incidentals are non-recurring transactions which are not directly related to day-to-day operational activities over EUR 5 million unless significant for the specific reportable segment.

**ARPU (Average Revenue Per User)**

ARPU is the sum of connection fees, monthly fixed subscription revenues, traffic revenues and gross service provider revenues less related discounts during a one-month period, divided by the average number of customers during that month. Gross service provider revenues represent revenues generated by third-party providers. KPN accounts for the net part as gross service provider revenues.

**B****BCF (Business Control Framework)**

The Business Control Framework contains all corporate policies and guidelines that are mandatory for KPN segments and entities. It forms the cornerstone of the governance of the KPN Group.

**Bit**

A binary digit (bit) is the smallest unit of information. Internet speeds in this report are expressed in Megabits per second (Mbps).

**Broadband**

Broadband refers to telecommunication that provides multiple channels of data over a single communications medium, typically using some form of frequency or wave division multiplexing.

**Byte**

The byte (derived from 'by eight') is a unit of digital information that consists of eight bits. Data sizes in this report are expressed in petabytes.

**C****Cradle-to-cradle (C2C)**

Production techniques, management or operations that are essentially waste free. All material inputs and outputs are technical or biological nutrients. Technical nutrients can be recycled or reused with no loss of quality and biological nutrients composted or consumed.

**CBb (College van Beroep voor het bedrijfsleven)**

The Trade and Industry Appeals Tribunal in the Netherlands.

**CDP**

The CDP (formerly Carbon Disclosure Project) is a joint initiative of investors worldwide that questions and benchmarks listed companies on their approach to climate change.

**Churn (calculated on an annual basis)**

The number of mobile customers no longer connected to a mobile operator's network divided by the operator's customer base.

**Circular economy**

The circular economy is a generic term for an industrial economy that is producing no waste and pollution and in which material flows are of two types biological nutrients, designed to re-enter the biosphere safely, and technical nutrients, which are designed to circulate at high quality in the production system without entering the biosphere.

**CISO (Chief Information Security Office)**

CISO is responsible within KPN for the security of the IT and TI architecture. Part of this office are the CISO REDteam, KPN's ethical hacking team and the CERT (Computer Emergency Response Team) that acts in case of a (potential) cyber-attack.

**Climate neutral**

For KPN, climate neutral means operating with zero net CO<sub>2</sub>-emissions.

**Cloud services**

Cloud services are standardized IT capability (services, software or infrastructure) delivered via internet technologies in a pay-per-use, self-service way.

**CO<sub>2</sub>**

Carbon dioxide is a gas that is created when fossil fuels such as oil and coal are burned. Carbon dioxide is a greenhouse gas.

**Conflict minerals**

Conflict minerals are minerals mined under conditions of armed conflicts and human rights issues. These minerals are used in a variety of products, including consumer electronic devices such as mobile phones.

**CSR (Corporate Social Responsibility)**

Corporate Social Responsibility, to KPN, is the integrated vision of entrepreneurship, in which the company takes responsibility and creates value in economic (profit), ecological (planet) and social (people) terms. We incorporate CSR into our business and by doing so, take our social responsibility and contribute to societal challenges.

**Customer base**

Customer base is the total number of subscribers.

**D****DEFRA**

UK Department for Environment Food & Rural Affairs. DEFRA published conversion factors to calculate greenhouse gas emissions.

**DJSI (Dow Jones Sustainability Index)**

The Dow Jones Sustainability Index is a collection of indices that track the performance of companies that are frontrunners in terms of CSR. The DJSI is based on an analysis of corporate economic, environmental and social performance. There are several sub-indices based on geographical parameters.

**Dropped call rate**

The dropped call rate is the fraction of telephone calls which are cut off unexpectedly as a result of technical issues, measured as a percentage of all calls.

**DSL (Digital Subscriber Line)**

DSL is a technology for bringing high bandwidth information to homes and small businesses over ordinary copper PSTN lines. The widely used term xDSL refers to different variations of DSL, such as ADSL, HDSL, VDSL and SDSL.

**E****EBITDA**

Operating result before depreciation and impairments of PP&E and amortization and impairments of intangible assets.

**EEIO (Environmentally extended input output data)**

EEIO models estimate energy use and/or GHG emissions resulting from the production and upstream supply chain activities of different sectors and products.

The resulting EEIO emissions factors can be used to estimate cradle-to-gate GHG emissions for a given industry or product category. EEIO models are derived by allocating national GHG emissions to groups of finished products based on economic flows between industry sectors.

**F****FTE (full-time equivalent)**

The equivalent of the number of employees with a full-time contract.

**FttC (Fiber-to-the-Curb)**

FttC is defined as an access network architecture in which optical fiber extends to street cabinets 'on the curb'. The final part of the connection to the home consists of copper.

**FttH (Fiber-to-the-Home)**

FttH is defined as an access network architecture in which the final part of the connection to the home also consists of optical fiber.

**FttO (Fiber-to-the-Office)**

FttO is fiber connection for business customers to the customers' offices.

**G****GHG (Greenhouse Gas) Protocol**

The Greenhouse Gas Protocol Initiative is a multi-stakeholder partnership of business, non-governmental organizations (NGOs), governments and others that develop internationally accepted GHG accounting and reporting standards for organizations.

**Global Goals**

See Sustainable Development Goals

**Green electricity**

Green electricity is electricity from renewable sources. KPN only uses wind energy and electricity from biomass that does not compete with food production.

**Greenprint**

The Greenprint is a description that helps us to work towards the same goal; achieving the desired Customer Experience and in the end become the best service provider. Based on the why, who, what and how of our existence.

**GRI (Global Reporting Initiative)**

The Global Reporting Initiative is an organization that publishes international standards for CSR reporting.

**H****Hybrid Cloud**

Hybrid cloud is a cloud computing environment which uses a mix of on-premises, private cloud and third-party, public cloud services with orchestration between the two platforms. By allowing workloads to move between private and public clouds as computing needs and costs change, hybrid cloud gives businesses greater flexibility and more data deployment options.

**I****ICT**

Information and Communication Technology.

**IDH (Sustainable Trade Initiative)**

Organization aimed at working towards ensuring more sustainable tin mining practices in Indonesia.

**Industry-adjusted ranking**

This ranking takes into account the impact of its industry's reputation on a company's score Internet of Things (IoT).

**Internet of Things**

The Internet of Things connects objects such as garbage bins or cars via a chip with the internet. This offers a lot of opportunities, such as Smart City solutions.

**IPTV**

IPTV is a system through which television services are delivered using the internet protocol suite over a packet-switched network such as the internet. iTV is KPN's IPTV offering in the Netherlands.

**ISO (International Organization for Standardization)**

This organization is responsible for international management standards such as ISO 14001, ISO 140064-1, ISO 27001 and ISO 22301 (mentioned in this report).

**iTV**

iTV stands for interactive TV. With iTV, the customer can easily choose when, where and what programs to watch.

**J****JAC (Joint Audit Cooperation)**

The JAC is a cooperation of 13 European telecommunication operators (including KPN) focusing on the social, ethical, and environmental conditions across their supply chains.

**K****KPN Classmate**

Through the KlasseContact project of the KPN Mooiste Contact Fonds, chronically ill children can use an ICT-set (a KPN Classmate) to take a virtual seat in the classroom.

**KPN Mooiste Contact Fonds**

This KPN foundation supports societal initiatives aimed at stimulating social contact, by combining people and technological resources to the best advantage.

**L****LoRa (Long-Range)**

Network architecture to connect millions of low-energy and low-data devices to the Internet in a cost-effective way. This opens up countless application possibilities for KPN's Internet of Things (IoT).

**LTE (Long-Term Evolution)**

LTE, commonly marketed as 4G LTE, is a standard for wireless communication of high-speed data for mobile phones and data terminals.

**M****Machine-to-Machine (M2M)**

M2M refers to technologies that allow both wireless and wired systems to communicate between devices of the same ability.

**Market share**

Market share is the percentage or proportion of the total available market that is being serviced by KPN. These figures are based on externally available market data, which may not be completely accurate, and may partially be based on estimates.

**Mbps (Megabits per second)**

Mbps is a unit of data transfer rate equal to one million bits per second. The bandwidths of broadband networks are often indicated in Mbps.

**MHz (Megahertz)**

MHz is one million hertz (a unit of frequency).

**Multi play**

Propositions combining more than one product and/or type of service is considered a multi play proposition. Triple play and quad play propositions are types of multi-play propositions.

**MVNO (Mobile Virtual Network Operator)**

A mobile operator that does not have its own spectrum or its own network infrastructure. Instead, MVNOs have business arrangements with 'traditional' mobile operators to buy minutes of use to sell to their own customers.

**N****Net adds**

Net adds is defined as the difference between the total number of contracts for a specific type of service from one period compare to the previous period.

**NPS (Net Promoter Score)**

NPS is a tool for measuring customer loyalty, based on whether customers would recommend KPN to someone else.

**New Way of Living & Working (NWLW)**

The New Way of Living & Working means being able to work without the constraints of time and place with the use of modern technology.

**Normalized EBITDA**

Normalized EBITDA is defined as a 12-month rolling total EBITDA excluding restructuring costs, incidentals and major changes in the composition of the Group (acquisitions and disposals).

**O****OTT**

In broadcasting, over-the-top content (OTT) refers to the delivery of audio, video, and other media over the internet for which no subscription to a traditional cable or satellite operator is required. A famous example is WhatsApp, which is replacing text messaging.

**P****PUE (power usage effectiveness)**

An international standard for the calculation of energy efficiency of data centers, which compares the total data center electricity consumption with the electricity consumption of equipment used for customer purposes. In the calculation, data centers with an occupation rate less than 25% are not taken into account.

**Petabyte**

One petabyte (PB) is one quadrillion ( $10^{15}$ ) of the unit byte for digital information.

**R****RepTrak**

RepTrak, developed by the Reputation Institute, is a method to calculate a reputation score of companies. KPN's reputation is based on three out of twelve RepTrak attributes that are kept confidential and are stable over the years.

**RGU (Revenue Generating Unit)**

RGU is the total of all subscribers receiving standard cable, broadband internet or telephony services over KPN's network at a given date. Thus, one subscriber who receives a bundle of KPN's services (telephony, internet and TV) would be counted as three RGUs.

**Roaming**

Transfer of mobile traffic from one network to another, referring to the exchange of international mobile traffic.

**S****Scope 1**

Direct greenhouse gas emissions occurring from sources that are owned or controlled by an organization.

**Scope 2**

Indirect greenhouse gas emissions from the generation of purchased electricity, heating or cooling consumed by an organization.

**Scope 3**

Other direct greenhouse gas emissions as a consequence of the activities of the company, but occurring from sources not owned or controlled by an organization.

**Service revenues**

Service revenues are defined as the aggregate of connection fees, monthly subscription fees and traffic fees. The term service revenues refers to wireless service revenues.

**SIM card (Subscriber Identity Module card)**

A chip card inserted into a mobile phone, which contains information such as telephone numbers and memory for storing a directory.

**#SMARTer2030**

Back in 2008, GeSI launched the first report of the SMART series, the SMART2020, followed by SMARTer2020 in 2012. In 2015, the #SMARTer2030 report has been launched with the aim to extend our horizon to 2030 and to look at ICT-enabled sustainability from a holistic point of view. The translation of the #SMARTer2030 research into opportunities for KPN and the Netherlands followed in 2016.

**SOC (Security Operations Center)**

The SOC monitors the high-risk systems of KPN in order to quickly act in case of security risks or incidents.

**SoHo/SME**

SoHo refers to Small Office/Home Office companies. SME refers to Small and Medium Enterprises.

**Stakeholder**

Stakeholders are the people or organizations with an interest in the company, such as employees, shareholders, suppliers, customers, governments and media.

**Subscriber**

A subscriber is defined as an end-user with a connection to the mobile or fixed networks and/or service platforms of KPN. The subscriber is included in the subscriber base if there is a direct or indirect (business, wholesale) billing relationship, either prepaid or postpaid, with the following exceptions:  
> if the connection is owned through wholesale by full MVNOs or fixed line access parties or

> if the connection has been inactive for a specific time period (prepaid or postpaid without contract).

**Sustainable Development Goals (SDGs)**

On September 25, 2015, countries within the United Nations adopted 17 goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved in 2030. Also known as Global Goals.

vision is to increase sustainability awareness among companies and investors.

**VDSL (Very-high-bitrate Digital Subscriber Line)**

A new DSL technology providing faster data transmission over a single flat untwisted or twisted pair of copper wires. These fast speeds mean that VDSL is capable of supporting high bandwidth applications such as HDTV, as well as telephony services (Voice over IP) and general internet access, over a single connection. VDSL-CO refers to VDSL from the central office.

**VoIP (Voice over IP)**

Voice traffic is transported over an IP-based data network. It enables new ways of communicating, such as combinations of telephony, messaging and videoconferencing.

**VoLTE (Voice over LTE)**

VoLTE allows the voice service to be delivered as data flows within the LTE data bearer.

**T****Tier standards (I to IV)**

Telecommunications Infrastructure Standard for data centers. Tier levels describe the availability of data at a location. The higher the tier, the greater the availability. Tier IV is the highest level and entails independent dual-powered cooling and expected data availability of 99.995% or higher.

**Transparency Benchmark (TB)**

The Transparency Benchmark is a yearly benchmark which investigates the content and quality of the sustainability reports of Dutch enterprises.

**Transparency International Netherlands**

Transparency International Netherlands is the Dutch part of Transparency International (TI), a non-governmental organization which combats corruption worldwide.

**Triple play**

Term used to describe the provision of telephony, internet and television services to a household by a single provider.

**True Value**

True Value is a method to understand how the social value a company creates but also influences the profit of a company and the environment.

**TSR (Total Shareholder Return)**

A measure of the performance of different companies' stocks and shares over time. The TSR is calculated by the growth in capital from purchasing a share in the company assuming that the dividends are reinvested each time they are paid. This growth is expressed as a percentage as the compound annual growth rate.

**W****Weighted downtime reduction**

The weighted downtime concerns the average monthly time period in which a combination of KPN platforms and systems is inaccessible to clients and customers.

**Wholesale broadband access**

Wholesale broadband access is the rental by broadband internet service providers of access to KPN's networks to supply broadband internet access to their end customers. The broadband internet service provider charges its end customer for the combined wholesale broadband access it purchases from KPN along with its service fees.

**V****VBDO (Vereniging van Beleggers voor Duurzame Ontwikkeling)**

The Dutch Association of Investors for Sustainable Development (VBDO) works to create a sustainable capital market, a market that considers not only financial criteria but also non-financial, social and environmental criteria. VBDO's

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## Appendix 5. KPN Business Model

On pages 14-15 of the report, KPN describes its business model, highlighting the key inputs, business activities and outputs that create value for its key stakeholders. This section describes KPN's activities to convert inputs into outputs and outcomes.

KPN's business model describes how KPN earns money from implementing this mission as set out on pages 10-13 and fulfilling the needs of customers by taking inputs and converting those into outputs.

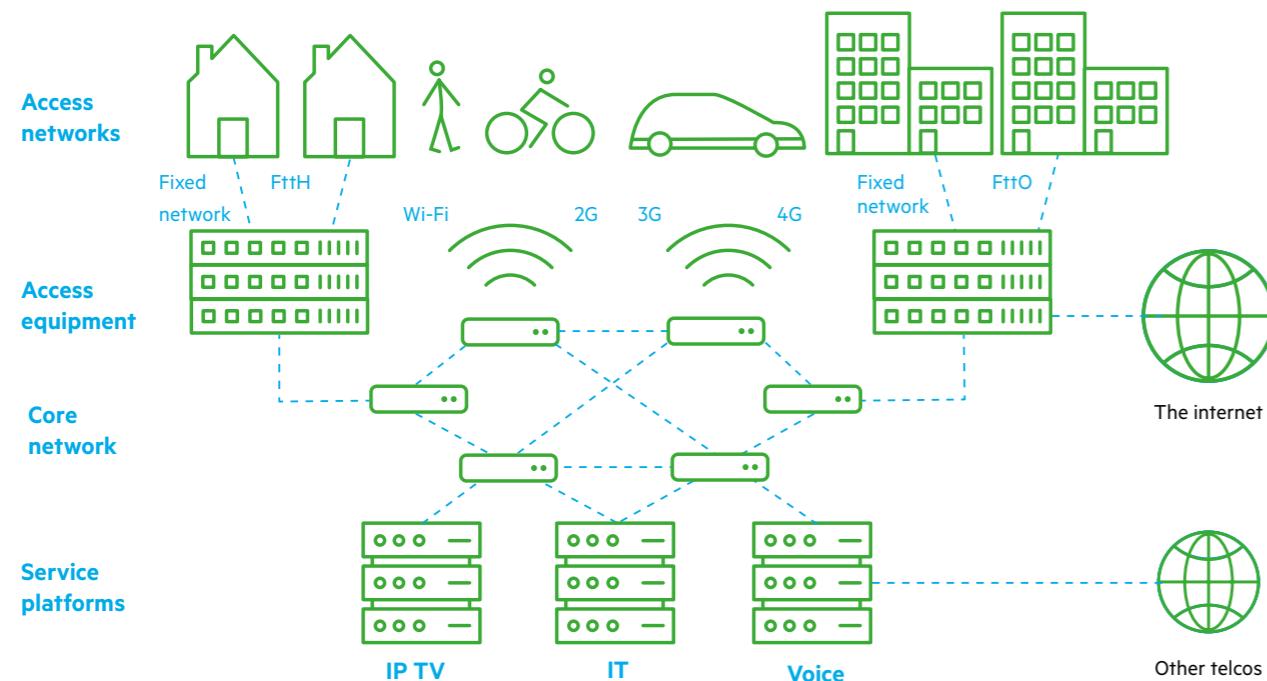
At the most basic level, KPN's business model is simple. We invest in and build a network infrastructure, and then one-by-one sign up customers to use those networks to fulfil their communication needs. We spend an up-front cost (subscriber acquisition cost, SAC) per new customer and then receive a monthly fee that allows us to earn back the SAC and the investments and maintenance cost of the Network infrastructure. Most services are variations on this model. Sometimes the SAC is small or a service requires less investments, but the basic elements stay the same.

To get more specific, we will break down the business model of KPN into three main building blocks:

### 1. Run the network

### 2. Service the customer journey

### 3. Build the infrastructure



**Running the network** delivers the core connectivity service to end-users, being people or devices. Running it means making sure KPN continues to correctly route calls, data packets and streams between the users of our networks.

Before the users can use the connectivity services they need to sign up, which means to the network to get their address and billing information in place. Signing up is the start of the **customer journey**, which includes all interaction between the customer and KPN **about** the core service itself, until the contract is terminated.

Few employees of KPN work in running the infrastructure, many more in servicing the customer journey, but by far the most in **building the infrastructure**. KPN builds the infrastructure in a continuous, iterative process with help from suppliers, to keep up with demand in bandwidth and changing customer needs.

We will now delve deeper into each of these three business model building blocks.

#### Run the Network

The slide below shows the main architecture of KPN's Infrastructure:

Access networks connect a device of the customer (mobile phone, or modem) with access equipment in the closest node of the KPN network. Copper and fiber cables are access networks, and antennas in towers in combination with wireless spectrum are so as well (for Mobile and Digitenne). Access networks do not understand the data they are transporting, they just reproduce the electrical signals over a distance. Core networks transport the data received by the access equipment over the access networks towards the destination. The destination is determined by an address (telephone number, IP address/ URL or UserID). The destination can be a service of KPN (like telephony or IPTV) but also somewhere on the Internet, outside the KPN network. The core network is a combination of fiber networks between all the nodes and routers who decide based on the IP number to which connection to route an IP packet to get the data closer to its destination. A router is just a specific type of computer with dedicated software. Platforms deliver the services of KPN (except Internet access). Each service has its platform, and a platform is again one or more computers with dedicated software for that specific service.

Apart from all the previous networks that are needed to deliver the primary services, KPN also needs to know which customers it has, how much they use and how much capacity should be build. Additionally, new customers join in, or leave and they change their specific service package. To support these changes, several things need to be adapted in multiple parts of access networks, access equipment, core networks and platforms. This is all maintained and managed from IT systems. There are IT systems to control the primary services but also to support Corporate company functions, like financial systems. The computers on which the IT is running is located at data centers (centralized technical buildings with energy supply) by KPN itself.

The inputs needed for this infrastructure to run also determine the running cost:

1. Traffic from or towards customers on other networks (from other Telcos)
2. TV Channels and on demand video or audio content
3. Recurring license fees for use of external cloud services
4. The internet
5. Green electricity for all the equipment and cooling of datacenters
6. Rental of buildings to house all the equipment
7. Rental of sites for antennas for the mobile network (2G, 3G, 4G, Digitenne and LoRa)
8. Skilled KPN employees /engineers to monitor the network and solve malfunctions
9. Maintenance contracts with suppliers to keep the equipment in good state
10. Recurring license fees for use of software

Most of these costs (4-10) are fixed, they are not impacted by revenue or customer behavior, 1-3 are driven by how many customers we have and if they use a lot of traffic, content and cloud services.

The output of running the infrastructure is the functioning of the core-services of KPN towards its customers:

1. Mobile voice, SMS and data / Internet access, using 2G, 3G/UMTS or 4G/LTE mobile networks
2. Fixed Internet access, Telephony, and IP TV, using the VDSL fiber to the curb copper network, or all fiber, or plain old PSTN
3. Data networks for connecting sites of companies
4. Internet of Things, security and cloud services, the latter often in a resell model from others
5. Datacenters to house business customer's computers or rental of processing power or applications
6. Workspace management for businesses
7. Consultancy, to help business customers with how to put KPN's services to best use
8. Tailored services, mostly for large business customers

3-8 are mostly used by businesses only, 1 and 2 by consumers and businesses. Services for business have many variants, the business can choose to do much himself, using only copper or fiber cables of KPN, or outsource his whole telco and IT solution to KPN or anything in between. The telco and IT infrastructure and needs of business are of course often a lot more complex than from consumers, requiring many more variants from KPN, diverging in service levels, guaranteed bandwidth, protocols and software versions. Also, different sectors can have specific needs.

Services can also be used in wholesale model, KPN runs (part off) the network, but the customer journey is serviced by another service provider, often also adding his own services.

It's in the monthly fees for these core-services that earns KPN most of its revenue. Most of it is now in flat fees, and less by usage fees. The margin on this revenue, if we deduct the cost for running the infrastructure, may be large, but this is because most of the costs for KPN are in servicing the customer journey and building the infrastructure.

## > Appendices

### Servicing the customer journey

While the output of running the infrastructure may be what it's finally all about for end-users, how they value KPN will be heavily determined by the contacts they have with KPN or its employees in their **customer journey**:

1. Get information about KPN services
2. Signing up
3. Ask questions about using the service and solve problems
4. Get a bill and pay
5. Change service aspects (speed, additional services)
6. Resigning

The customer can choose from many channels to interact with KPN:

1. Call, chat, or mail with a customer service center (or get called by a KPN employee)
2. Visit a shop
3. Visit a website or use the Mijn KPN app
4. Talk with a sales person or consultant
5. Use an external channel (which have service centers, shops, websites, and sales persons as well)

While the core mobile and fixed network services are mostly the same between consumer and business services, the services that KPN offers for the customer journey are very different between consumers and businesses. Differing in channels, service levels and sometimes specific for a specific customer or segment. Especially sales is different. In consumer markets customers are attracted using large media campaign and mail and outbound campaigns targeted at specific customer groups or profiles. Important is to retain the customers, an existing customer is of course much cheaper than a new one. In the business market, SME is mostly the same as consumers, but the larger the business is, the more the sales shifts to personal sales using account managers and a process of request for proposals and tailored offers. In Consumer and small business segments there is the clear trend to one package (KPN Compleet and KPN EEN) offering a complete solution for the customer. In all segments, the main differentiator for competitors is, apart from a better network quality is the higher quality level of the customer journey at KPN. Apart from that happy customers are the most important asset for a service provider, allowing higher ARPU's, lower churn and SAC, high quality customer journey processes also often allow for lower costs, due to less errors and rework.

Inputs for Servicing the customer journey, and driving costs, are:

1. Skilled and customer focused employees in customer service centers, sales and billing
2. Back office employees to change configurations for customers in the infrastructure
3. Service engineers installing equipment, connecting

- 4. customers and solving problems at customer locations
- 5. Specific equipment or devices (mobiles, routers and set top-boxes) depending on the service
- 6. IT systems that store all the data of (interaction with) customers across all the channels, the configuration of the customer and the infrastructure, the KPN service portfolio and process steps to make changes on behalf of the customer in the infrastructure. These IT systems are used by KPN employees in the interaction with Customer, should offer consistency across the channels and control the changes in the infrastructure to implement the wishes of the customer.
- 7. Office buildings and shops
- 8. Market communication costs 'above the line' using media (TV, Internet) and 'below the line' using mail and outbound calls
- 9. Billing cost for collecting and bad debt

Most of these costs are fixed, but are influenced by the number of customers of KPN and especially new customers for KPN. New customers require more interaction and thus time from KPN employees and are often, depending on market circumstances, given discounts or 'free' equipment (mobiles, routers, set-top boxes). This is, for a large part, called SAC/SRC.

The output of the customer journey is basically just one thing: loyal customers who are able to find a match between their needs and the services of KPN.

The revenue from the customer journey is limited, in Consumer and SME markets the service of the customer journey is included in the monthly fee for using the core-service. Only under some market conditions, customers pay for a service engineer or a device. Large business do pay for projects for their tailored services.

### Building the Infrastructure

The current KPN Network, IT systems processes for the customer journey may match the current customer needs, they won't for the future:

1. Customer needs change
2. As KPN's services, and Internet services in general, increase in importance in the life and work of customers, usage and thus required capacity will increase as well
3. New technologies become available
4. Old technology and services become obsolete
5. Competitive pressure, sustainable operations and value creating for shareholders require lower costs

This implies that KPN is in a constant process to upgrade its infrastructure, developing new services, migrating old services to new generations, increasing capacity and lowering costs by continued simplification. The process of Building the Infrastructure is complicated because all the components have to work together, and between many generations of networks, IT and processes.

Building the infrastructure may be invisible to customers, it fully determines how well KPN can run its infrastructure and service the customer journey. Consequently, by far the most cost of KPN are in the inputs to building the infrastructure:

1. Data on customer needs and behavior
2. Skilled employees who understand customer needs, the competitive landscape, and technological and organizational possibilities
3. Equipment from suppliers
4. Sub-contractors for equipment installation and digging cables
5. Software and software developers
6. The current version of the infrastructure

The investments in the network depend on customers and usage. Fixed access network investments depend on the number of Households and business location in the Netherlands, but it does not matter if that household or business is a Customer of KPN or not. For mobile networks most of the investments are in getting national coverage and implementing new, faster technologies (i.e. 4G/LTE). The number of customers has no impact. The amount of data customers use does have an impact, mostly on the investments in core networks which has to transport all the data. On-demand video data is then by far the most data-hungry application. Investments in platforms depend on the functionality offers and the capacity. IT systems and process development investments depend on the complexity of the infrastructure. Which is driven by the complexity of the portfolio and how many generations of services and systems KPN must support. Due to the large technological development in the recent years, mainly the migration of old telco technology towards all IP based networks, there is still a lot of legacy and thus a large need for simplification of the portfolio, networks, IT and processes within KPN, which would allow for much lower cost levels.

By far the most costs for nearly all KPN's services are for building the infrastructure, and also, KPN has to spend this upfront. Although KPN is increasingly also offering IT services, for most IT services of KPN (security, cloud services and datacenters) this is the same. Only workspace services and consultancy are much more employee intensive services. This makes the KPN business a very capital intensive business. The large investments, and mostly fixed costs of service the customer journey and running the infrastructure, are earned back by, one by one, attracting customers to use the network and earn a monthly fee.

If and when you have attracted enough customers to reach enough scale, it will not be easy for competitors to copy your competitive advantages and so it should be possible for a market leader to reach a return on investments that outperform the cost of capital, and thus create value for shareholders. However, this does not imply that the higher the

market share the greater the value creation, additional market share will cost increasingly more SAC/SRC or lower ARPU. There is an optimum in moist value creating market shares, the share level depending on the market situation.

The output of building the infrastructure is twofold:

1. A new, updated version of the Network able to keep up with future capacity increase and changes in customer needs
2. Changes to the IT systems and processes used in the customer journey, matching the changes in the infrastructure and more closely able to fulfill customer needs

This however does in itself not generate any revenue, which is reasonable, since building the infrastructure should be invisible to customers.

Before KPN can decide what to build exactly (and thus offer to customers), many questions must be answered:

1. What will customers need in the future?
2. What will KPN offer customers?
3. Why should customers choose KPN instead of competitors?
4. Which technologies will become available?
5. Which skills and resources do we need?
6. What is the roadmap for services and technologies?
7. How do we migrate from old to new?
8. How should we service the customer journey?
9. Which IT systems and processes do we need?
10. What technologies and suppliers should KPN choose?
11. How can we do so at a minimum cost level?

Answers to these questions give strategic, tactical and operational plans to execute. Swift and relentless executing of these plans will allow KPN to keep up with customer needs, fence of competitors, give employees a satisfying work life, efficient, sustainable and environmental friendly operations, and, if all this is in place, create value for shareholders.

## > Notes

&gt; Notes

# Colophon

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## Online

We would like to thank everyone who participated in the videos, that can be viewed on our Integrated Annual Report website: [www.kpn.com/annualreport](http://www.kpn.com/annualreport)



The inside pages of this publication have been printed on PaperWise, a new generation of paper and board with a very low environmental impact. The cover has been printed on wood-free white offset paper (FSC).

## Forward-looking statements and management estimates

Certain of the statements we have made in this Integrated Annual Report are 'forward-looking statements'. These statements are based on our beliefs and assumptions and on information currently available to us. They include information concerning our possible or assumed future results of operations, business strategies, financing plans, competitive position, potential growth opportunities, potential operating performance or expense improvements and the effects of future legislation or regulation.

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The terms 'we', 'our' and 'us' are used to describe the company; where they are used in the chapter 'Segment performance', they refer to the business concerned.

We always aim to further improve our CSR activities and reporting. Therefore, we highly appreciate your feedback, questions and comments on our Integrated Annual Report and CSR activities. Please contact [mvo@kpn.com](mailto:mvo@kpn.com).



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