





Welcome to Harnham's European Salary Guide, the result of an extensive global survey of Data & Analytics professionals.

Designed to educate and inform, this guide provides an overview of average salaries, an analysis of the latest hiring, workplace and technological trends, as well as expert commentary on how we can continue to drive progress in the world of Data & Analytics.

SALARY GUIDE INTRODUCTION

A WORD FROM THE CEO

I'm delighted to introduce you to Harnham's ninth, and perhaps our most unique, Data & Analytics Salary Guide.

Thank you to everybody who took the time to complete this year's survey. Once again, we have received more responses than ever before, with over 3,000 responses globally. Your insights, combined with an analysis of the 1,000+ placements made by Harnham over the past year and a review of job boards worldwide, have provided the clearest understanding of the market yet.

While the past few years may have been heavily influenced by global politics, our results this year were understandably impacted by another major global event; the COVID-19 pandemic. Having begun our research prior to widespread infections and international lockdowns, we are fortunate enough to be in a position where our insights offer a thorough look at how the market has actually been impacted, at least initially. In particular, our findings raise questions about how much the Data & Analytics world had adopted flexible working options prior to lockdowns being initiated regardless. You can read about this in detail later in the guide under 'The New Normal'.

For those working in Data & Analytics, there is good news. As businesses look to streamline existing processes and establish new ones, they are more reliant on Data professionals than ever before. This may be why over 87% of respondents felt as, or more, secure in their role than they did this time a year ago. The job market continues to move quickly, with respondents only remaining in their roles for an average of 2 years. Likewise, 74% are either actively looking for a new role, or open to the right opportunity.

We've seen a small increase of female Data professionals, who now make up 23% of the industry as a whole. Whilst there are some areas that remain more diverse than others, and there is still plenty of work to be done, this continues the pattern of diversification that we've seen over the past few years. We'll be looking at the state of Diversity in the Data & Analytics in our next annual Diversity Report, to be released later this year.

I hope you find this year's guide useful and informative. As ever, if you have any feedback, suggestions or questions about the guide, then please email research@harnham.com.

Dave Farmer
CEO

ABOUT DAVE FARMER

As one of the founding partners of Harnham, Dave has become a recognised figure in Data & Analytics recruitment over the past 14 years.

Having helped hundreds of Analysts develop their careers, Dave is now leading and growing Harnham's presence throughout the UK, Europe and US.





A NOTE FROM THE ANALYST

2020

This year, Harnham's Salary Survey was completed by over 3,000 Data & Analytics professionals across the UK, the US and mainland Europe.

When it came to establishing our findings from these submissions, the majority of the Data cleansing, manipulation and analysis was completed in SAS, before using Excel to produce some of the final outputs.

In order to provide the most accurate averages, all results are based upon the median. This ensured that most outliers had little impact on our eventual findings, although some outliers were also identified and removed prior to the analysis. These were identified based on salary and level of seniority, with the top and bottom 5% removed where appropriate. Disciplines were also grouped into specialisms to provide clearer and more concise results.

For answers submitted in free form text fields (e.g. What are the core technologies you use within your role?), the fields were scanned for key words. This meant that every instance of a specific word was counted. To use the above example, a response of 'SAS, SQL & Excel' would be counted as three individual answers.

For our diversity findings, some of which will appear in Harnham's Diversity Report, to be released later this year, we grouped Ages into bands to offer a year on year comparison. When it comes to Gender comparisons, a lack of Data outside of 'Male' and 'Female' meant that only those two categories were included in the analysis.

Nikki Ha / Analyst



ABOUT THIS GUIDE

For our 2020 Salary Guide, we have compiled data from:

- Our independent survey completed by 3,265 respondents globally.
- Analysis of all placements by Harnham's European team.
- Analysis of Data & Analytics roles advertised online.

Salaries for each role have been broken down by experience level and, for this year's guide, respondents were asked to match themselves against one of the following:

- **Entry Level** (Starting out their Data & Analytics career in an entry-level role, perhaps having achieved their first promotion).
- **Mid-Level** (Experienced hands-on position, remaining in a technical capacity and possibly leading projects).
- **Technical Lead or Manager Level** (Within a role that has moved from technical work and into a management position, or having a senior technical hands-on position).
- **Director Level** (Leading business units comprising of one or more technical teams).

THE NEW NORMAL

THE IMPACT OF COVID-19

With the impact of COVID-19 felt in almost every part of our day-to-day lives, it wasn't long until conversation turned to what 'the new normal' would look like once the worst of the pandemic had passed. However, for those in the Data & Analytics space, the new normal had been gradually establishing itself over the past few years.

In particular, the amount of businesses offering flexible working options, be it location or timing-based, has been steadily increasing over the past few years. This year, however, we saw this rise significantly from 70% of respondents to 82%. Whilst it may seem connected this is, in fact, not a result of lockdown measures. Prior to COVID-19 rapidly changing measures across Europe, 81% of respondents were listed as having some form of flexible working, something which only increased to 83% during our post-COVID analysis. For many in the Data & Analytics industry, 'the new normal' of remote and flexible working was already a way of life.

However, there does appear to be an impact on how important individuals find the ability to work from home. Prior to COVID, working from home was respondents' most desirable benefit. Interestingly, Post-COVID, this was replaced by flexible working. With more people having the option of remote working, potentially permanently, it appears that what they're now seeking is flexibility around hours as well as location.

Of note, however, is that even in our Post-COVID results, only 67% of respondents felt that Working from Home was actually a benefit offered to them. At this stage, it seems, a third feel as though this won't continue to be an option once 'normality' returns. Intriguingly, the number of people who listed a car allowance as one of their most desirable benefits doubled post-COVID, potentially a result of a decreased appetite to use public transport in the wake of a pandemic.

Job security is playing on people's minds, as one would expect during a global crisis. However, changes in attitudes were not necessarily what one would expect. The number of respondents who felt 'more secure' in their role actually increased, potentially a result of businesses' reassuring communications to their staff. The number who felt less secure, however, stayed almost identical. Ultimately, Post-COVID, 87% felt 'more' or 'as secure' in the role, the only a slight drop from 90% in our 2019 guide.

Finally, our findings would suggest, from a candidate point at least, that the Data & Analytics job market will be more active than ever. In fact, Post-COVID, less respondents felt happy in their current position, while ¾ were either actively searching for a new role, or willing to leave for the right opportunity.

Note: For our analysis of the impact of COVID-19 on the industry and responses, we used the date March 1st 2020 as our cut-off point. Any submissions prior to this were classified as pre-COVID, while those from that date onwards were classified as post-COVID.



FOCUS FRANCE BENELUX

Across the France/Benelux region, we've seen an emergence of smaller, challenger enterprises that are looking to disrupt what has traditionally been a slower-developing region.

In France, particularly, we're now seeing an incredible start-up ecosystem come to fruition, with many businesses looking to build highly innovative products that address specific commercial and business problems. As a result, and with competitive salaries and bonus schemes available, many professionals are now looking for a new role where they can work in the best environment and continue to progress quickly. However, despite meaningful increases in access to flexible working, the region does remain behind the rest of Europe by a fairly significant amount. That being said, efforts to improve diversity in Data & Analytics are beginning to pay off, with the number of female professionals growing from 19% last year, to 26% this year. This is now the highest percentage across Europe.

INSIDER'S INSIGHTS

"The Data market has greatly evolved over the last few years. While it was exploratory for many companies for a long time, the power of Data Science has been proved in many applications and is now a must have for any 21st century company. As its uses are evolving every day, it is important for Data Science professionals to keep up to date with the latest technologies. Companies also have a very important part to play, and must provide a framework in which they encourage their teams to keep on top of these technological advances and continue to develop."

Louis Denoix / Lead Data Scientist, Energy Startup



DATA & TECHNOLOGY

FR BNL

Following the Data Science boom of the past few years, demand for top Data Engineering talent has now begun to take the lead.

As more and more business embrace the importance of workable Data, they have also embraced the talent behind smart Data solutions. Indeed, with many companies consistently seeking to collect as much Data as possible, they now have a greater appreciation of the right products and processes required to help their Data Scientists and Analysts to achieve their business goals.



As a result, Data & Tech profiles, in particular those of Data Engineers, are more in demand than ever. Candidates with a strong knowledge of programming language like Python and Scala, as well as some architecture and infrastructure skills, such as experience with Cloud platforms, Terraform, and Kubernetes, are the most appealing to the most pioneering and innovative businesses.

Pierre Gerbeau / Senior Recruitment Consultant, France



DATA SCIENCE

FR BNL

For the last few years, growth in Data Science has showed no signs of slowing. Having partnered with a huge number of companies, varying sector and size, this growth seems to be at its most rapid amongst tech start-ups.

Now founded with Data at the heart of their strategy, a majority of these start-ups look to hire Data Science profiles within their first years of activity, largely thanks to their understanding of the ROI brought about by Data Science. In France, this is partially a result of the government's efforts to encourage innovation and growth within tech, supported by a number of financial incentives for companies who hire staff with these skillsets, such as the Credit Impôt Recherche (CIR), which finances the first two years' salary of PhD grads.



As a result, candidates from top schools (Grandes Ecoles) that have a mastery of Python, are amongst the most sought after in the industry. On the other hand, R has seen a significant drop in demand for Data Science candidates, largely due to its limitation in terms of Machine Learning and Deep Learning. Despite this, it still remains fairly popular for use in more statistical roles (Data Analyst, Marketing, Stats).

Wesley Taupin / Manager, France



DIGITAL ANALYTICS

FR BNL

As the regions Digital Analytics market continues to evolve, it is becoming increasingly important for candidates to have a skillset beyond coding and analytics.

Whilst previously knowledge of Javascript, Google Analytics, AT Internet or Adobe Analytics used to be enough, enterprises are now on the look for those with a solid business understanding. Specifically, most positions on the market require Digital Analysts to share their insights with key stakeholders across their companies.



However, as those with business acumen know their worth, companies who are hiring Digital experts with only a short-term purpose are far more likely to see top talent leaving their roles more quickly than expected. To retain and secure those talents, companies need to organise training and career development opportunities in order to help their teams continuously upskill and find their path within their company.

Cindy Walusiak / Managing Consultant, France

75%**WOULD LEAVE THEIR ROLE**

If the right opportunity came up,
a decrease from 81% last year.

21 %**AVERAGE SALARY
INCREASE SOUGHT**

When applying to a role
over the past year.

10%**AVERAGE SALARY
INCREASE ACHIEVED**

When applying to
a role last year.

16%**AVERAGE BONUS**

55% of respondents in France/
BENELUX received a bonus.

77%**HAVE FLEXIBLE
WORKING OPTIONS**

Including flexible hours and the
ability to work from home, an
increase from 50% last year.

26%**NUMBER OF FEMALE
PROFESSIONALS**

Up from 19% last year, and
now the highest percentage
in Europe.

FRANCE BENELUX KEY FINDINGS

FR BNL

**TOP FIVE REASONS FOR
LEAVING A ROLE LAST YEAR**

- Lack of career progression
- Poor Management
- Salary not competitive
- Poor Company Culture
- Lack of training

TOP FIVE MOST IMPORTANT BENEFITS

- Bonus
- Health Insurance
- Working From Home
- Flexible Working
- Education/Training Allowance

PERMANENT - AVERAGE ANNUAL SALARY
DATA SCIENCE

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Data Scientist	39,000 €	55,000 €	76,000 €	105,000 €
Deep Learning & AI	40,000 €	57,000 €	77,000 €	115,000 €
Quantitative Analyst	36,000 €	55,000 €	70,000 €	90,000 €

DATA & TECHNOLOGY

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Business Intelligence	36,000 €	55,000 €	66,500 €	115,000 €
Data Architecture	41,000 €	59,000 €	83,500 €	120,000 €
Data Eng. & Big Data	42,000 €	58,000 €	84,750 €	135,000 €
Software Engineering	40,000 €	62,000 €	82,000 €	120,000 €

AMSTERDAM NETHERLANDS

FR BNL

MARKETING & INSIGHT

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Campaign & CRM	43,000 €	52,000 €	65,000 €	100,000 €
Insight Analyst	45,000 €	58,000 €	70,000 €	105,000 €
Market Research	45,000 €	55,000 €	67,000 €	101,000 €

DIGITAL ANALYTICS

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Conversion Rate Opt.	35,000 €	58,000 €	76,500 €	100,000 €
Implementation	35,000 €	55,000 €	68,500 €	95,000 €
Web Analytics	34,000 €	55,000 €	71,000 €	97,000 €

RISK ANALYTICS

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Decision Systems	40,000 €	60,000 €	85,000 €	110,000 €
Decision Science	45,000 €	65,000 €	90,000 €	110,000 €

BRUSSELS

BELGIUM

FR BNL

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE

	Entry Level	Mid-Level	Technical Lead	Director
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Role type

Data Scientist	41,000 €	56,000 €	78,000 €	110,000 €
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DATA & TECHNOLOGY

	Entry Level	Mid-Level	Technical Lead	Director
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Role type

Business Intelligence	35,000 €	52,000 €	65,000 €	105,000 €
Data Eng. & Big Data	42,000 €	55,000 €	80,000 €	115,000 €
Software Engineering	40,000 €	53,000 €	76,000 €	95,000 €
Data Architecture	45,000 €	60,000 €	90,000 €	140,000 €

MARKETING & INSIGHT

	Entry Level	Mid-Level	Technical Lead	Director
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Role type

Insight Analyst	40,000 €	52,000 €	65,000 €	110,000 €
Campaign & CRM	37,000 €	47,000 €	57,000 €	92,000 €
Market Research	33,000 €	38,000 €	48,000 €	73,000 €

DIGITAL ANALYTICS

	Entry Level	Mid-Level	Technical Lead	Director
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Role type

Web Analytics	40,000 €	55,000 €	70,000 €	85,000 €
Conversion Rate Opt.	38,000 €	51,000 €	67,000 €	85,000 €

PARIS

FRANCE

FR BNL

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Data Scientist	41,500 €	52,000 €	69,000 €	100,000 €
Deep Learning & AI Eng.	45,000 €	60,000 €	75,000 €	110,000 €

DATA & TECHNOLOGY	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Business Intelligence	42,000 €	50,000 €	63,000 €	80,500 €
DevOps Engineer	42,000 €	55,000 €	70,000 €	90,000 €
Data Engineer	42,000 €	55,000 €	73,000 €	110,000 €
Software Engineer	42,000 €	53,000 €	65,000 €	90,000 €

MARKETING & INSIGHT	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Campaign & CRM	31,800 €	40,000 €	55,000 €	95,000 €
Insight Analyst	37,500 €	50,000 €	72,000 €	95,000 €
Market Research	30,000 €	35,500 €	47,500 €	70,000 €

DIGITAL ANALYTICS	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Product Management	42,000 €	51,750 €	70,000 €	100,000 €
Programmatic	40,000 €	47,000 €	65,000 €	90,000 €
Web Analytics	38,500 €	44,500 €	59,000 €	85,000 €



FOCUS GERMANY

DE

As more and more businesses begin to establish German locations, the number of Data teams has also expanded exponentially.

While this has led to an increase in the number of opportunities around, it has also highlighted the domestic shortage of candidates within Germany. As a result, there is more need than ever before for businesses to look beyond native, German-speaking talent and appeal to international candidates. As was the case last year, a desire for a greater salary is the main driver for leaving a role, which is likely why German Data professionals saw the largest salary increase between roles in Europe. Despite this, there is a close to 10% reduction in the number of respondents who were either actively seeking, or willing to leave their current role.

INSIDER'S INSIGHTS

"The current crisis has not led to a decrease in demand for experienced Data Engineers and Architects - on the contrary, they are as sought after as ever and hard to find. Companies may decide to postpone fancy Data Science or Artificial Intelligence projects, but the urgency to handle legacy, parallel systems, and a diversity of architectures, especially in terms of Data, has not gone away. In fact, the pandemic has exposed the deficiencies of current infrastructure implementations, and highlighted the need for a sustainable, explainable Data strategy for companies as well as the public sector.

I personally hope that we will use the current momentum the pandemic has brought in terms of digitalisation, and that we will continue to bridge the digital divide - across and between industries, but also as a societal challenge - for the greater good of all."

Sabrina Schiele / Digitalist & Data Expert, Various



DATA & TECHNOLOGY DE

Data & Technology remains the fastest-moving hiring area in Germany, with the companies most successful in securing the best talent being the ones who are agile and quick with their interview process.

The demand for those skilled in DevOps and Cloud Automation has significantly increased over the past year, as companies look for ways to release their new features and platforms faster and more reliably than ever before. Additionally, we've also seen an increasing convergence of Advanced Analytics and Machine Learning with BI systems and architecture. Data Engineering has also seen a number of developments over the past 12 months, most noticeably the introduction of Machine Learning model deployment expertise into requirements. At the same time, the ability to facilitate a production environment with fast and reliable testing, deployment and optimisation remains crucial.

As business needs shift, and updated technologies and methodologies evolve on a regular basis, many companies and Candidates are finding it hard to stay on top of every developing trend. But despite the high number of emerging technologies, we're also seeing a trend of companies looking more toward non-technical soft skills when hiring, focusing less on technical experience within their interview processes, and more on soft skills and behaviours.



Elena Meshkova / Recruitment Consultant



DATA SCIENCE DE

Data Science remains one of the most challenging hiring areas in the German Data arena, largely due to a continuing misalignment in what businesses are looking for and candidate qualifications.

Many companies require candidates with production experience, but do not provide the in-house resources for Junior Data Scientists to develop those skills. As a result, many who do not currently have production experience then struggle to gain it. This is why highly experienced end-to-end Data Scientists remain highly sought-after despite the scarcity of candidates who fit this description.



As the industry continues to evolve, many businesses have adjusted and introduced Machine Learning Engineers into their teams to solely deal with model deployment and optimization. Additionally, interaction between Data Scientists, Engineers and commercial stakeholders continues to increase and candidates with experience in managing these stakeholders and good business acumen can often secure a considerable premium

Peter Schroeter / Senior Manager, Germany



DIGITAL ANALYTICS DE

As the Digital Transformation continues, businesses with a good understanding of user behaviour online remain ahead of the competition.

Being able to provide better content, easier purchasing processes or targeted adverts remains essential for those looking to stand out from the crowd. As a result, established offline companies and pure online players are continuing to invest in their Digital teams. Additionally, candidates are increasingly looking to join companies outside the typical ecommerce and retail scope, in particular service providers, utilities or SaaS, whilst more vendors are establishing their own teams and offices in Germany to service local clients.

Additionally, an increased importance is being placed on establishing an understanding of user behaviour on mobile sites and apps. With more customers consuming content and making purchases through their phone or tablet than ever before, companies are looking to better understand how customers come to their site or app and what they do while there. As a result, we have seen companies specifically asking for professionals with relevant experience in mobile measurement tools



Judith Kniepeiss / Manager, Germany

70%**WOULD LEAVE
THEIR ROLE**

If the right opportunity came up, a decrease from 76% last year.

21%**AVERAGE SALARY
INCREASE SOUGHT**

When applying to a role over the past year.

14%**AVERAGE SALARY
INCREASE ACHIEVED**

The largest achieved in Europe.

17%**AVERAGE BONUS**

53% of German respondents received a bonus in the last year.

89%**HAVE FLEXIBLE
WORKING OPTIONS**

Including flexible hours and the ability to work from home, compared to 67% last year.

19%**NUMBER OF FEMALE
PROFESSIONALS**

The fewest in Europe.

GERMANY KEY FINDINGS

DE

**TOP FIVE REASONS FOR
LEAVING A ROLE LAST YEAR**

- Salary not competitive
- Lack of career progression
- Poor Management
- Poor Company Culture
- Job Stability

TOP FIVE MOST IMPORTANT BENEFITS

- Working From Home
- Flexible Working
- Bonus
- Health Insurance
- Education/Training Allowance

BERLIN

GERMANY

DE

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Data Scientist	45,500 €	70,000 €	90,000 €	150,000 €
Machine Learning Eng.	65,000 €	70,000 €	85,000 €	135,000 €

DATA & TECHNOLOGY

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Business Intelligence	45,000 €	60,000 €	73,000 €	79,500 €
DevOps & Cloud Autom.	55,000 €	72,000 €	80,000 €	90,000 €
Data Engineering	50,000 €	68,000 €	85,000 €	105,000 €
Software Engineering	45,000 €	60,000 €	75,000 €	87,000 €

MARKETING & INSIGHT

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Campaign & CRM	36,000 €	42,000 €	67,000 €	81,000 €
Pricing Analyst	40,000 €	55,000 €	76,000 €	95,000 €
Insight Analyst	42,200 €	58,000 €	72,000 €	82,000 €
Market Research	34,000 €	42,000 €	65,000 €	82,000 €

DIGITAL ANALYTICS

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Web Analytics	41,000 €	52,000 €	69,000 €	95,000 €
Conversion Rate Opt.	40,500 €	50,500 €	67,500 €	95,000 €
Programmatic	40,000 €	51,000 €	67,000 €	94,000 €

RISK ANALYTICS

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Decision Systems	48,000 €	60,000 €	92,000 €	145,000 €
Fraud Analyst	45,000 €	54,000 €	78,000 €	135,000 €
Portfolio Management	38,000 €	52,000 €	65,000 €	130,000 €

DUSSELDORF

GERMANY DE

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Data Scientist	54,000 €	79,500 €	110,000 €	141,000 €

DATA & TECHNOLOGY	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Business Intelligence	46,000 €	60,000 €	84,000 €	108,000 €
Data Architecture	49,500 €	63,000 €	92,000 €	113,500 €
Data Eng. & Big D	50,000 €	72,000 €	94,000 €	122,000 €
Data Governance	54,000 €	75,500 €	103,000 €	118,000 €
Software Engineering	48,000 €	62,500 €	86,000 €	114,000 €

MARKETING & INSIGHT	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Campaign & CRM	44,000 €	54,000 €	74,000 €	107,000 €
Insight Analyst	44,500 €	61,500 €	79,500 €	116,000 €
Market Research	41,500 €	52,000 €	69,000 €	92,000 €

DIGITAL ANALYTICS	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Conversion Rate Opt.	43,000 €	52,000 €	74,000 €	98,000 €
Programmatic	42,000 €	52,000 €	73,500 €	102,000 €
Web Analytics	45,000 €	57,000 €	76,000 €	105,000 €

HAMBURG

GERMANY

DE

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Data Scientist	54,500 €	79,000 €	106,000 €	137,000 €

DATA & TECHNOLOGY

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Business Intelligence	45,000 €	61,000 €	82,000 €	103,000 €
Data Architecture	49,500 €	65,000 €	92,000 €	115,000 €
Data Eng. & Big D	50,000 €	71,000 €	93,500 €	124,000 €
Data Governance	52,000 €	71,000 €	96,000 €	115,000 €
Software Engineering	48,000 €	65,000 €	92,000 €	114,000 €

MARKETING & INSIGHT

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Campaign & CRM	43,000 €	54,000 €	75,000 €	108,000 €
Insight Analyst	45,000 €	58,000 €	79,000 €	117,000 €
Market Research	43,500 €	52,000 €	69,000 €	99,500 €

DIGITAL ANALYTICS

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Conversion Rate Opt.	42,500 €	52,000 €	73,500 €	98,000 €
Programmatic	42,000 €	51,000 €	74,000 €	101,000 €
Web Analytics	44,000 €	54,500 €	75,000 €	105,000 €

MUNICH

GERMANY

DE

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Data Scientist	56,000 €	81,000 €	114,000 €	149,000 €

DATA & TECHNOLOGY	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Business Intelligence	47,000 €	61,000 €	84,000 €	106,000 €
Data Architecture	49,000 €	65,000 €	92,000 €	115,000 €
Data Eng. & Big D	51,000 €	72,000 €	95,000 €	125,000 €
Data Governance	55,000 €	75,000 €	105,000 €	121,000 €
Software Engineering	48,000 €	63,000 €	87,000 €	114,000 €

MARKETING & INSIGHT	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Campaign & CRM	43,000 €	54,500 €	76,000 €	108,000 €
Insight Analyst	46,000 €	62,500 €	81,000 €	118,000 €
Market Research	42,000 €	53,000 €	69,000 €	92,000 €

DIGITAL ANALYTICS	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Conversion Rate Opti.	43,000 €	52,000 €	74,000 €	99,000 €
Programmatic	42,000 €	54,500 €	74,500 €	103,000 €
Web Analytics	46,000 €	58,000 €	76,500 €	106,000 €



FOCUS NORDICS

As the Nordic region continues to develop into one of Europe's key hubs for Data & Analytics innovation, demand for top talent has never been higher.

The limited talent pool available has meant that many larger enterprises are keen to look overseas for the right candidates, although highly-skilled domestic professionals remain the most sought-after. But, as an area with a well-known work/life balance (with 90% of professionals having access to some form of flexible working) businesses are having to offer more to attract the right talent.

As a still-growing region, many Data & Analytics professionals want to ensure they are continuing to develop, with a lack of career progression remaining the top reason for leaving a role. Combined with relatively low salaries, at least compared to their international counterparts, businesses need to promote a Data-first culture if they are looking to remain competitive.

INSIDER'S INSIGHTS

"In a highly competitive field, businesses need to ensure their baseline salaries are competitive. By working collaboratively with internal HR and recruitment teams, companies can ensure internal parity with the market and attract the right talent externally."

Lead Data Architect, Fashion Brand



DATA & TECHNOLOGY NDX

A significant area of growth for many businesses in the Nordics, consistently increasing demand for Data & Technology talent.

It remains the most candidate-led market in the Nordics, with Data Engineers consistently in short supply. With demand for Data Engineers having outstripped supply for years, we've now reached the stage where there is a significant talent shortage, a direct effect of which is the constant increasing of salaries by businesses looking to secure the best talent.

As a result of this limited supply, it is increasingly important for companies to consider beyond traditional candidates pools from both elsewhere in the Nordics, further afield, and minority groups.

For those looking to take their next step in the world of Data Engineering, the most in demand tech skills over the past year are SQL, Python, Java, Scala, Spark, AWS, Hadoop, Hive and Kafka.



Sunny Singh / Recruitment Consultant, Nordics



DATA SCIENCE NDX

The Nordic Data Science space continues to grow, with several world-leading Data-led organisations calling the region home.

The past year has seen the number of Data Science roles continue to rise, particularly those looking for Machine Learning and Big Data skills. This is likely a result of the continuous adoption of Cloud and IoT technologies by Nordic businesses.

Those with a focus on Deep Learning and NLP have been more in demand than ever as companies seek to have specialist Data Scientists within their teams. Additionally, Candidates who fit the bill of 'full-stack' Data Scientists continue to standout in this competitive market.



Despite this, Hiring Managers should be aware that there is no such thing as the 'perfect' candidate and they should be open to those with the relevant transferable skills in, what remains, a candidate-led market.

Elise Myhren / Managing Consultant, Nordics



DIGITAL ANALYTICS DE

Digital Analytics is known as one of the most robust and significant areas within Data in the Nordics, and this year is no exception.

One notable development that we have seen over the past 12 months, however, is a developing focus on Programmatic Advertising and its growth across the market. This is largely as a result of an overall shift towards mobile advertising which has highlighted the revenue to be made from video to many businesses who were previously unequipped to explore this area.

That being said, the market is still primarily about measurement, tag management, and Digital Data & Insights. Therefore candidates who have the relevant skillset, namely experience in using the GA360 suite paired with a number of marketing technologies and strong communication skills, are still highly sought after by many enterprises.

Harriet Coleman / Managing Consultant, Nordics



RISK ANALYTICS NDX

A continuously growing area in the Nordics, those who work in Risk Analytics are set to become increasingly important as another financial crisis looms.

Over the past year, Hiring Managers are repeatedly looking beyond traditional Analysts who can analyse Credit Risk Data and build models. Now, as technologies advance, they need candidates who have the initiative to take their findings to that next level. Those who can derive insights and use them to make business critical decisions at a fast pace, coping with the demands from senior management and stakeholders, stand out amongst the crowd.



From a programming perspective, Python is still very much on the rise, as SAS continues to decline in use and popularity. This has meant Hiring Managers are now testing SQL skills more thoroughly, as they will expect new hires to be using it as a standalone tool rather than through SAS.

Ewan Dunbar / Manager, Nordics

71%**WOULD LEAVE
THEIR ROLE**

If the right opportunity came up, the lowest in Europe.

20%**AVERAGE SALARY
INCREASE SOUGHT**

When applying to a role over the last year.

8%**AVERAGE SALARY
INCREASE ACHIEVE**

When applying to a role last year.

14%**AVERAGE A BONUS**

Only 34% of Nordic respondents received a bonus, the fewest in Europe.

90%**HAVE FLEXIBLE
WORKING OPTIONS**

Including flexible hours and the ability to work from home, the highest number in Europe.

20%**NUMBER OF FEMALE
PROFESSIONALS**

The same as in our 2019 guide.

NORDICS KEY FINDINGS

NDX

**TOP FIVE REASONS FOR
LEAVING A ROLE LAST YEAR**

- Lack of career progression
- Salary not competitive
- Poor Management
- Poor Company Culture
- Relocation (personal)

TOP FIVE MOST IMPORTANT BENEFITS

- Flexible Working
- Working From Home
- Bonus
- Health Insurance
- Pension

COPENHAGEN DENMARK

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Data Scientist	DKK 490,000	DKK 570,000	DKK 720,000	DKK 1,100,000
Deep Learning & AI	DKK 470,000	DKK 550,000	DKK 700,000	DKK 1,100,000
Quantitative Analyst	DKK 475,000	DKK 560,000	DKK 700,000	DKK 1,300,000

DATA & TECHNOLOGY	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Business Intelligence	DKK 485,000	DKK 628,000	DKK 780,000	DKK 1,000,000
Data Architecture	DKK 492,000	DKK 630,000	DKK 825,000	DKK 1,020,000
Data Eng. & Big Data	DKK 500,000	DKK 648,000	DKK 850,000	DKK 1,000,000

DIGITAL ANALYTICS	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Conversation Rate Opt.	DKK 415,000	DKK 525,000	DKK 675,000	DKK 825,000
Implementation	DKK 420,000	DKK 528,000	DKK 680,000	DKK 837,000
Web Analytics	DKK 425,000	DKK 541,500	DKK 680,000	DKK 831,000

MARKETING & INSIGHT	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Campaign and CRM	DKK 395,000	DKK 529,600	DKK 645,000	DKK 832,000
Insight Analyst	DKK 405,000	DKK 532,000	DKK 655,000	DKK 827,000
Market Research	DKK 405,000	DKK 529,000	DKK 645,000	DKK 825,000

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Data Scientist	50,000 €	62,000 €	72,000 €	92,000 €
Deep Learning & AI	48,000 €	61,000 €	70,000 €	91,000 €
Quantitative Analyst	47,000 €	56,700 €	71,000 €	91,000 €

DATA & TECHNOLOGY	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Business Intelligence	45,000 €	61,000 €	73,500 €	92,000 €
Data Architecture	46,000 €	60,500 €	68,500 €	94,000 €
Data Eng. & Big Data	48,000 €	61,000 €	71,200 €	95,000 €

HELSINKI

FINLAND

NDX

DIGITAL ANALYTICS	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Conversation Rate Opt.	38,000 €	46,000 €	59,000 €	78,000 €
Implementation	39,000 €	47,600 €	62,000 €	81,000 €
Web Analytics	38,000 €	47,000 €	62,000 €	80,000 €

MARKETING & INSIGHT	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Campaign and CRM	32,000 €	42,700 €	57,000 €	78,000 €
Insight Analyst	32,000 €	44,000 €	60,500 €	81,000 €
Market Research	34,000 €	43,000 €	58,000 €	74,000 €

OSLO

NORWAY

NDX

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Data Scientist	NOK 512,000	NOK 700,500	NOK 835,000	NOK 1,100,000
Deep Learning & AI	NOK 510,000	NOK 680,000	NOK 800,000	NOK 1,000,000
Quantitative Analyst	NOK 500,000	NOK 678,000	NOK 787,000	NOK 950,000

DATA & TECHNOLOGY

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Business Intelligence	NOK 562,500	NOK 620,000	NOK 765,000	NOK 900,000
Data Eng. & Big Data	NOK 550,000	NOK 720,000	NOK 850,000	NOK 1,200,000
Software Engineering	NOK 548,000	NOK 697,000	NOK 848,000	NOK 1,000,000

MARKETING & INSIGHT

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Campaign & CRM	NOK 422,500	NOK 635,000	NOK 850,000	NOK 1,050,000
Insight Analyst	NOK 445,000	NOK 636,000	NOK 844,000	NOK 1,000,000
Market Research	NOK 430,000	NOK 638,500	NOK 850,000	NOK 1,000,000

DIGITAL ANALYTICS

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Conversion Rate Opt.	NOK 460,000	NOK 585,000	NOK 725,000	NOK 1,000,000
Implementation	NOK 470,000	NOK 575,000	NOK 700,000	NOK 975,000
Web Analytics	NOK 455,000	NOK 560,000	NOK 725,000	NOK 1,050,000

RISK ANALYTICS

Role type

	Entry Level	Mid-Level	Technical Lead	Director
Portfolio Management	NOK 450,000	NOK 650,000	NOK 825,000	NOK 1,000,000
Decision Science	NOK 475,000	NOK 660,000	NOK 815,000	NOK 1,100,000

STOCKHOLM

SWEDEN

NDX

PERMANENT - AVERAGE ANNUAL SALARY

DATA SCIENCE	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Data Scientist	SEK 486,000	SEK 620,000	SEK 695,000	SEK 1,112,400
Deep Learning & AI	SEK 570,000	SEK 710,000	SEK 780,000	SEK 1,100,000
Quantitative Analyst	SEK 456,000	SEK 610,000	SEK 700,000	SEK 1,100,000

DATA & TECHNOLOGY	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Business Intelligence	SEK 444,000	SEK 508,000	SEK 696,000	SEK 1,200,000
Data Eng. & Big Data	SEK 480,000	SEK 630,000	SEK 720,000	SEK 1,240,000
Software Engineering	SEK 470,000	SEK 588,000	SEK 710,000	SEK 1,100,000

MARKETING & INSIGHT	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Campaign & CRM	SEK 422,000	SEK 575,000	SEK 649,000	SEK 870,000
Insight Analyst	SEK 450,000	SEK 556,000	SEK 670,000	SEK 900,000
Market Research	SEK 430,000	SEK 560,000	SEK 875,000	SEK 910,000

DIGITAL ANALYTICS	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Conversion Rate Opt.	SEK 405,000	SEK 510,000	SEK 664,000	SEK 825,000
Implementation	SEK 395,000	SEK 504,000	SEK 640,000	SEK 850,000
Web Analytics	SEK 400,000	SEK 500,000	SEK 650,000	SEK 800,000

RISK ANALYTICS	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Decision Science	SEK 450,000	SEK 675,000	SEK 850,000	SEK 1,100,000
Portfolio Management	SEK 475,000	SEK 690,000	SEK 875,000	SEK 1,100,000



FOCUS SPAIN ESP

A key region, especially in the world of gaming and gambling, the Spanish Data & Analytics market is continuing to thrive.

Whilst a divide remains between the innovative hub of Barcelona and the financial institutions of Madrid, those working in both areas are driven by the need for personal and professional growth. As a result, salary increases aren't as high as they have been over the past few years as businesses look to appeal to candidates with training and development opportunities

Flexible and remote working remain particularly important for those working in the Spanish market. This is perhaps to be expected given that, compared to the rest of Europe, Data professionals are the least likely to have these options as part of their benefits packages. Despite this, financial compensation does still play a significant role in the region, where the average bonus is the highest in Europe.

INSIDER'S INSIGHTS

"The next year will see a significant change in product development. With business priorities more pressing than ever, focus will shift to ensuring the product is as good as it can be and, in particular, doing as much as possible, in the shortest amount of time, using the fewest resources."

Dawid Nawrot / Senior Data Analyst, AI Booking System

BARCELONA

SPAIN

ESP

PERMANENT - AVERAGE ANNUAL SALARY

DATA & TECHNOLOGY	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Business Intelligence	21,000 €	38,000 €	45,500 €	70,000 €
Data Eng. & Big Data	30,000 €	39,000 €	62,500 €	85,000 €

DATA SCIENCE	Entry Level	Mid-Level	Technical Lead	Director
Role type				
Data Scientist	32,500 €	40,000 €	60,000 €	87,500 €
Deep Learning & AI	31,000 €	47,500 €	62,000 €	90,000 €
Quantitative Analyst	32,500 €	41,500 €	60,000 €	81,000 €

80%**WOULD LEAVE THEIR ROLE**

If the right opportunity came up, once again the highest number in Europe.

29%**AVERAGE SALARY
INCREASE SOUGHT**

When applying to a role over the past year, the highest in Europe.

9%**AVERAGE SALARY
INCREASE ACHIEVED**

When applying to a role last year.

76%**WORKING OPTIONS**

Including flexible hours and the ability to work from home, the fewest in Europe.

19%**NUMBER OF FEMALE
PROFESSIONALS**

Down from 21% in last year's guide.

20%**AVERAGE BONUS**

Only 48% of Spanish respondents received a bonus, the average bonus was the highest in Europe.

SPAIN KEY FINDINGS

ESP

**TOP FIVE REASONS FOR
LEAVING A ROLE LAST YEAR**

- Lack of career progression
- Salary not competitive
- Poor Management
- Poor Company Culture
- Lack of flexible working

TOP FIVE MOST IMPORTANT BENEFITS

- Flexible Working
- Working From Home
- Health Insurance
- Bonus
- Education/Training Allowance

74%**WOULD LEAVE THEIR ROLE**

If the right opportunity came up, slight decrease from 77% last year.

22%**AVERAGE SALARY
INCREASE SOUGHT**

When applying to a role over the past year, the same as last year.

45%**RECEIVED A BONUS**

With an average bonus of 17% for those who did achieve one.

23%**NUMBER OF FEMALE
PROFESSIONALS**

A slight increase from 21% last year.

2**AVERAGE LENGTH OF TIME IN A ROLE**

2 years, with those in France/Benelux & Spain, most likely to stay in the role for the longest.

10%**AVERAGE SALARY
INCREASE ACHIEVED**

When applying to a role last year.

82%**HAVE FLEXIBLE WORKING OPTIONS**

Including flexible hours and the ability to work from home, an increase from 70% last year.

PYTHON**MOST COMMONLY USED TOOL**

Across every region surveyed, followed by SQL

EUROPE KEY FINDINGS

2020

**TOP FIVE REASONS FOR
LEAVING A ROLE LAST YEAR**

- Lack of career progression
- Salary not competitive
- Poor Management
- Poor Company Culture
- Relocation (personal)

TOP FIVE MOST IMPORTANT BENEFITS

- Flexible Working
- Working From Home
- Bonus
- Health Insurance
- Education/Training Allowance



CONTACT **HARNHAM** EUROPE

**We hope you've found our commentary on the state
of the Data & Analytics market interesting.**

Should you wish to ask for further information about any of the figures or markets referenced in this guide, please feel free to give us a call.

Beyond finding your next hire or next role, please feel free to get in touch if you need any support from Harnham.

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