ELECTROLUX:

SUBSCRIBING TO GROWTH

Ivy Buche prepared this case under the supervision of Professor Howard Yu as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business situation.

Ola Nilsson, chief experience officer and executive vice president (EVP) of Electrolux, had been heading the Home Care and Small Domestic Appliances business area since 2016. With more than two decades at Electrolux, Ola felt deep pride as his business unit launched a subscription service for one of Electrolux's most technologically advanced products – Pure i9 – a robotic vacuum cleaner.

In November 2018, Electrolux launched the trial of this new hardware-as-a-service business model in Sweden. It allowed consumers to subscribe to, rather than purchase, the Pure i9. Within six months, Daniel Wentz, VP Software Products, who had spearheaded the initiative with a team of five people, started to see traction in the market. Daniel, who Ola had recruited from the online media and marketplaces industry, was convinced that there was a much bigger opportunity for Electrolux:

> *With smart products and the Internet of Things, combined with subscription and circular economy macro trends, the market is evolving. We are seeing early signs that services based on these trends make sense for consumers even in the electronics hardware and appliances space.*

Daniel was working on a business plan for Ola outlining a potential subscription model for small appliances. The key questions were:

- *How could Electrolux create more value with the hardware-as-a-service concept?*

- *What kind of investment and leadership commitment would it take to succeed?*

ELECTROLUX OVERVIEW

Headquartered in Stockholm, Electrolux AB, a US$12.8 billion Swedish multinational home appliance manufacturer, was the world's fifth-largest maker of consumer appliances. Its range of well-established brands included Electrolux, Frigidaire and AEG (*see Exhibit 1*). In 2016, when Jonas Samuelson took over as CEO, he articulated a shift in strategic direction from a capital goods manufacturer to a consumer-focused company. [1] He stated:

> *"The most important trend is the digitization and mobilization of consumers in the way they interact with their surroundings, meaning they expect a lot more out of their appliances in terms of ease of use, product design, flexibility and adaptability."*[2]

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[1] Milne, Richard. "Electrolux turns up the heat on smart appliances." *Financial Times*, March 16, 2016.

[2] Samuelson, Jonas. "Electrolux concentrates efforts on two key areas of expertise." International TCG Summit, March 3, 2016.

In February 2019, Electrolux implemented several organizational changes to reinforce its ability to create superior consumer experiences and drive profitable growth by:

- Creating four consumer-focused regional business areas with a unified approach to each market. The goal was to leverage common branded platforms with a key focus on the strategic brands – AEG (prominent in Germany, Austria and Benelux countries), Electrolux (in Europe, Latin America and APAC) and Frigidaire (leading the mass market segment in North America) – and differentiate with new business models to reach consumers directly through digital transformation and evolving routes to market.

- Enhancing the value proposition for emerging market consumers by targeting the growing middle class and rethinking the user interface and technological aspects to be relevant in these markets (*see **Exhibit 2** for strategy*).

- Focusing product innovation on three core areas – taste, care (for clothes) and wellbeing in the home.

Home Care and Small Domestic Appliances (HC and SDA)

The HC and SDA business unit had operated as a standalone business area until 2018, contributing 6% to total sales (*see **Figure 1***). Its portfolio included vacuum cleaners, air purifiers, air conditioners and other products for wellbeing in the home, along with smaller kitchen appliances, which were distributed globally. Since 2016, Ola had been carrying out a business turnaround through product rationalization, organizational restructuring and supply chain improvements. He reallocated resources to focus strongly on growing categories (e.g. cordless vacuum cleaners) and exited from unprofitable segments (e.g. some kitchen appliances), seeking to optimize costs and drive portfolio profitability and competitiveness. As part of the restructuring process that came into effect in January 2019, the HC and SDA business was combined with the four geographically focused major appliances business areas – Europe, Asia-Pacific and Middle East & Africa (APAC & MEA), North America, and Latin America (*see **Exhibit 3** for financial overview by business area and the stock price movement*). The sales team from the HC and SDA business unit was merged with the regional salesforce to form a single salesforce working in each region and covering all appliances.
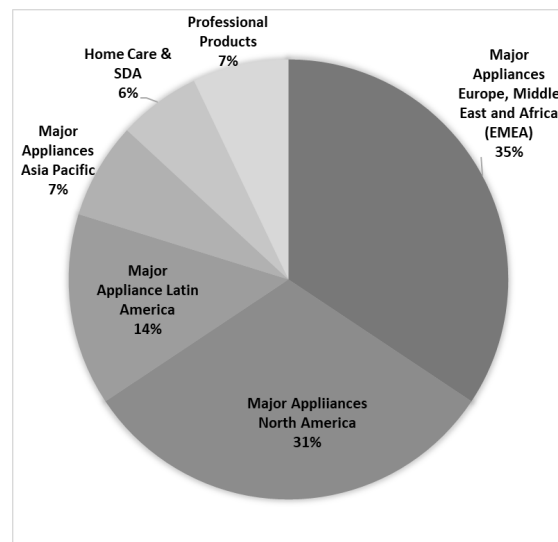

Figure 1: Electrolux sales by business area 2018
Source: Annual report

Under the new matrix organizational structure, Electrolux also created a new global function for consumer experiences under Ola's leadership. As the group chief experience officer, Ola was globally responsible for marketing, design, product lines, digital consumer solutions and ownership experience innovation (*see Exhibit 4 for organizational structure*).

A key milestone for HC and SDA was the launch of the Pure i9 robotic vacuum cleaner.

LAUNCHING THE PURE I9 ROBOTIC VACUUM CLEANER

Pure i9 was categorized as a "wellbeing-oriented innovation" because it provided a clean and healthy indoor environment – free from dust, allergens and pollutants. Launched in September 2017 in Europe, the robotic vacuum cleaner was linked to and controlled by a smartphone app. The device's inbuilt navigation system allowed it to detect and maneuver around obstacles (similar to a self-driving car). Unlike other robotic vacuum cleaners, which were round, Pure i9 was triangular, which meant it could get into nooks and crannies easily (*see Figure 2*). It went on to win the prestigious iF Design award and earned best-in-class ratings from tech publications such as the Swedish *M3* and the German *Stiftung Warentest*. Ola was optimistic:

Figure 2: Pure i9 Robot Vacuum Cleaner
Source: Electrolux

"With Pure i9, we're taking the first step in creating a truly responsive ecosystem of products for wellbeing in the home. This is no longer a gadget for early adopters but a high-performing vacuum cleaner that effortlessly cleans your home while you are away. It is a relevant category for all consumers." [3]

And yet, despite being a technologically advanced and highly acclaimed product, Pure i9 did not take off as planned, selling just one-third of the projected numbers. Some more obvious reasons for underperformance were its high price and competition from iRobot, the category leader with 60% market share globally. iRobot had a range of products backed by strong marketing (focusing on the consumer need for "Cleaner floors every day – all at the push of a button") as well as a direct-to-consumer sales model. In addition,

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[3] "Electrolux launches Pure i9 robotic vacuum in the United States." Electrolux Press Release, March 26, 2018.

Ola found that consumers' perceptions of robotics had been destroyed by gimmicky products. Internal consumer surveys revealed a level of skepticism commonly associated with robotic vacuum cleaning:

> *I tried it some years ago and it didn't work. It was generally a stupid thing bouncing around in my home and it didn't clean well.*

> *I don't think robotic vacuum cleaners will work in my apartment due to high thresholds or carpets.*

> *It is an expensive product and I am not sure it will do the job as promised. Why take that risk?*

Ola wondered how they could achieve volume and market penetration with Pure i9's positioning at the premium end of the price spectrum. At this point, Daniel joined the HC and SDA division. Ola noted:

> *We realized we needed software thinking in our executive leadership team to challenge us. This was a critical competence for us and it couldn't sit in a back office. Daniel came from the online industry and had a background in software. For him, Spotify or Netflix are the way to go, whereas we move boxes – two very different worlds.*

Ola tasked Daniel with increasing sales of Pure i9:

> *Since our early achievements were far from business plan, we considered several options early on and therefore had to allow ourselves to be more aggressive on questioning the go-to-market plan including the business model.*

Delving into the problem

To dig into Pure i9's back story, Daniel went around listening and understanding how product development was initiated, what decisions were made, how processes were laid out, which functions had a say for different types of questions, how investment and budgets were secured and so on.

Daniel soon discovered that bringing Pure i9 to the market had not been without challenges. Electrolux had invested significantly in infrastructure, cloud computing and expensive IT tools and consultants to advise on setting up for smart products. However, Pure i9 had been built with a traditional mindset: "We will build a fantastic product, launch it and people – hopefully − will love it." The company learned the hard way that creating a hardware + software product was completely different.

Pure i9 launched about two years later than anticipated, was more expensive and did not sell according to projections. Taking an "outsider's" view, Daniel found that two processes defined product innovation at Electrolux:

- ***New product development process***: Electrolux used the waterfall methodology, which took a linear approach to hardware projects, from ideation to opportunity selection and launch. The project was broken down into sequenced tasks grouped under phases with several checkpoints. To advance through each checkpoint, various aspects of the product had to be completed, such as costing, scope and technical solution. Some checkpoints were more important; for example, triggering the start of the tooling process in factories involved significant costs and was essentially irreversible. The completion of each phase was marked with formal exit criteria and sign-off by the project stakeholders. However, there was no distinction between the critical checkpoints and others that could be changed afterwards, such as software or marketing. This methodology was too rigid and did not lend itself to a hardware + software product. Daniel noted:

  The checkpoints were not necessarily connected to what's valuable for a user, but for risk reduction before launching a hardware product and minimizing the probability of recall after production commenced. Although a lot of work was done by various functions and reported at the checkpoint meetings, that work didn't necessarily move the needle for the user experience. Also, the process ended after launch, with no feedback loop. This was in sharp contrast to the online industry's way of working where the production process was agile, iterative and continuously evolving.

- ***Investment request process***: Each project was based on an investment request that included the business case and the scope of the project. The business case outlined the cost of the project in terms of resources required over time for the given scope. The business case was often based on retail numbers. For example, the retail numbers for vacuum cleaners represented the volume and value of the product category, which helped to determine where to position the new product and the potential impact it would have. To build a product with software and data, however, a hardware product project would have to be tacked on. According to Daniel, this was mainly due to risk aversion in a low-margin industry:

  People can understand a hardware-first kind of investment request. That's where our current process and profit formula DNA exists. We are comfortable with making decisions based on that type of information. To someone raised in developing products following a minimum viable proposition approach to validate usage before scaling, this approach is counterintuitive especially for products based on software and data.

Furthermore, once the investment request was granted, the scope, time period and funds could not change radically from the original scope. Daniel explained:

> *When an industry goes through rapid changes, as we are starting to experience with software, battery technology, sustainability, a lot of things will change over two or three years. But we are sitting on an investment vehicle that does not evolve accordingly. We must keep on delivering because that's what we're incentivized to do within the project. If a project is delivered on time, on cost, and according to the investment request, but it misses the users and market, there will be questions, but no serious re-engineering of the approach.*

These two processes were among the reasons Electrolux was struggling with Pure i9. Essentially, the product did not incorporate a different view of the user and the software.

To share these findings with the leadership team in a subtle way, Daniel asked Ola for two or three hours in the following leadership team meetings, during which he highlighted case studies on, for example, Tesla and the Schibsted Media Group to show how they had redefined themselves, right from the business model to the operating systems. The objective was to be both provocative and inspiring:

> *Do we really believe that what happened to these companies and how they've navigated these challenges have zero bearing on our future? We should probably try to challenge some of our thinking.*

A NEW TEAM

Daniel approached Ola, reiterating:

> *The only thing labeled a product at Electrolux is the hardware in the box. Software is just the app, which is considered more as a feature. For me, when you add software it implies that you also add measurable value.*

Ola responded:

> *If software is the product, then show me the money!*

Daniel replied:

> *If you give me a team, we can show how to monetize the software by turning data into value.*

Software-as-a-product, with its own vision and strategy, was a new concept for Electrolux. Ola realized it would require a new team to focus on hardware and software as an integrated product. A small cross-functional team was assembled under Daniel, comprising engineers at the back end and front end, a product manager to craft the product strategy and roadmap, and a couple of UX (user experience) designers to define the information architecture and the look and feel of the app.

Using a different lens

Daniel and his team came up with a hypothesis: Could Electrolux target the non-consumers who historically lacked the money and/or confidence to buy such a high-end product?

As they went deeper into the user data on consumption patterns in various parts of the world – Korea, Japan, Nordics, Australia – they discovered information that Electrolux had collected for eight months but not examined. The consumption pattern in terms of Pure i9 usage sessions per week resembled a long tail, with the majority of users with low consumption and about 20% with extremely high consumption.

The team then realized that this consumption pattern could be framed differently: Instead of considering the number of robotic vacuum cleaners sold, Electrolux could view the number of square meters cleaned. That was the measurable output that the product delivered and what consumers could relate to. They cared about a clean floor, not the vacuum cleaner. The breakthrough finally came when the team plotted a graph of units sold versus square meters cleaned (*see Figure 3*).
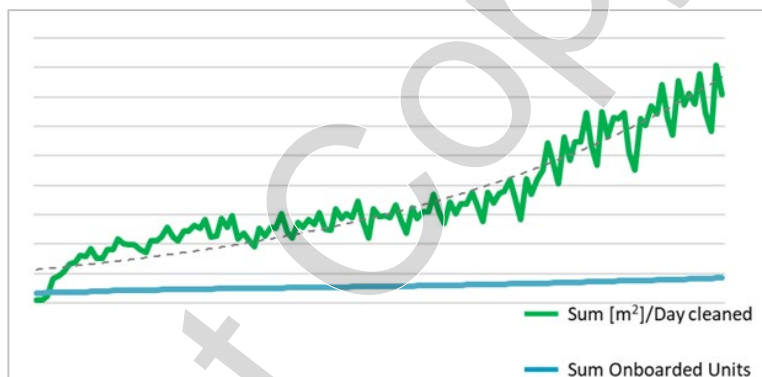

Figure 3: Evolution of area cleaned (m²) vs. onboarded units
Source: Electrolux

Daniel rushed to share these findings and the implications with Ola, asking:

Where do you want to monetize? According to linear logic – as we are doing now – or exponential cleaning logic?

For Ola, it was a defining moment:

The graph gave me goosebumps. It proved that once consumers have the machine, over time, they use it more and more. This means the product really works, and consumers have started trusting the machine. The question is, how do we lower the barrier to consumer acceptance? If we can reach people with the right business model so that they can afford it, we'll have a competitive advantage over other brands that perform so-so because those

products will never survive in a subscription model. Now this expensive hardware doesn't work against me anymore!

Daniel reflected:

> *By following the traditional new product development process and the investment request structure, we could never have gone to market with the square meters cleaned proposition, simply because we wouldn't have the data to support that business case before launch.*

Ola decided to launch a business model for Pure i9 to achieve a very different outcome around usage. This meant driving behavior and deriving profitability and unit economy differently than through hardware unit sales. He approved a pilot authorizing the minimum but most essential steps to support a new subscription-based business model, which involved bridging several gaps and working out many details.

Re-engineering the back end

The first step was to re-engineer the back end of the robotic vacuum cleaner. Previously, the innovation focus had been on navigation and the robot returning to the charger. Storing the cleaning data from usage sessions in memory and reporting back the value delivered to the user had not been part of the original product positioning.

The software team reworked the robot's firmware so it would save the data generated on square meters cleaned until the robot was connected to Wi-Fi and then send it to the company. Daniel explained:

> *The cleaning data is what we must create and own. It is the job we are delivering, that's one of the most valuable pieces of information we have. If we can connect that to value, then we can charge for that value.*

The next step involved setting up a website to attract potential users and explain the new value proposition, pricing model and user journey from receiving the unit to first monthly payment.

Another essential step was to connect the APIs to a digital payment platform to manage the monthly billing cycles and take on the credit risk. The team chose to work with Stockholm-based Klarna, a rapidly growing online payments provider and newly licensed bank. Klarna, a fintech unicorn, gave online consumers the option to pay now, pay later or pay in installments – offering a trusted, frictionless and smooth checkout experience. It took about three months to get the payment process in place, including legal terms and integration.

For four months, Daniel's team worked evenings and weekends as they believed they could create something different. The objective was to prove the model -- not get it "perfect." Daniel commented:

It was a low-scale, low-budget, minimum viable proposition type of project. Can we get a few users to buy this service? Do we get consumption data? Can we run the billing cycles in the first month or two? Do we get cash into our account? We wanted to just fly under the radar, get it out, test and verify: Do we have a market fit? Do we drive adoption? And then take it from there.

For Ola, the subscription model was a means to drive volume:

We have been underperforming. Volume is the problem we want to solve. A volume play also fits quite well with the changing business model to become the new-market disruptor.

LAUNCHING THE SUBSCRIPTION MODEL

In November 2018, Pure i9 was offered on a trial subscription pay-per-use basis in Sweden. Users downloaded an app onto their smartphone, which enabled them to monitor the number of square meters cleaned each session and month.

The subscription model's pricing depended on usage, so Daniel and his team studied consumption patterns (*see Figure 4*). A business model that would drive volume implied a low entry threshold so that all customer segments would consider the subscription model. At the same time, heavy users had to be rewarded. Based on these

Users	Area cleaned per month
40%	< 200 m^2
20%	200–350 m^2
40%	> 350 m^2

Figure 4: Consumption patterns
Source: Electrolux

two criteria, the subscription was priced at SEK 1 per square meter cleaned, with a minimum fee of SEK 79/month, i.e. if a consumer used 50 square meters, they would be charged SEK 79 regardless of the surface cleaned.[4] The price was capped at SEK 299/month – all usage above that was free. Between the two end price points, the model was similar to pay-per-use depending on the size of the apartment, number of sessions run per month and so on. Service and maintenance were included in the subscription fee.

At launch, Electrolux had a 24-month lock-in term for managing the financial risk of the hardware cost. The plan was to scrap the hardware unit after the 24-month term. Over the next two months, Electrolux started getting users and subscription fees at the end of

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[4] SEK 1 = €0.09

each month, thus proving the model. However, they failed to achieve scale. Yet again, the team tried to figure out why. Did people not want to pay per consumption? Would a flat fee per month be easier to understand? Or was it the lock-in period?

To understand the friction points, they interviewed several potential and existing users and conducted a conjoint analysis to determine which attributes of the offering they valued most. While there was no indication of consumer preference for a flat monthly fee, there was a clear signal to remove the 24-month lock-in period and lower the maximum monthly fee. This made sense to the team because the robotic vacuum cleaner was now being targeted to mainstream consumers who were not necessarily convinced about the product's performance. Daniel explained:

> *To drive volume, we need a freemium approach. Consumers should be able to try it out and see if it fits their expectations. The 24-month term to manage the financial risk was a hardware company mechanism, a start-up would have solved it differently.*

The team scrapped the 24-month lock-in, instead adopting a circular economy approach to address the cost of the hardware unit. Users could now exit at any time by paying a SEK 799 fee, which covered the refurbishment cost of the returned unit. This meant changing some of the moving parts, filters, brushes, dust collectors and the front panel (if it was scratched), polishing the unit, putting it in a new box and getting it out to work again as soon as possible. Thus, each unit was used to its fullest extent. Electrolux soon started to see renewed growth.

Success indicators

By June 2019, the subscription model had gained traction in Sweden: 40–50 Pure i9 units were shipped per week, compared with 4–5 per week initially. Both user churn and the cost of acquiring users were managed well according to original case assumptions.

The pilot enjoyed profitable unit economy and margins were higher. This proved that the subscription model could be more efficient than the traditional branding, retail sales and marketing model. The key to success, however, was to ensure that the user base did not churn after a few months. From November 2018 to November 2019, the churn remained under control.

Even without a major marketing push, there was some pull being generated in the market. Some consumers had come forward saying, "I have two floors and I would like another robot. But I don't want to pay double the price. What can you do for me?"

During spring 2019, Daniel's team carried out a net promoter score (NPS) survey. The most interesting feedback was that the new hardware-as-a-service model was expanding the market, not cannibalizing the existing one. Users said:

Amazing! I have always wanted to try a robotic vacuum cleaner as I like new technology and trying out new ways to improve my life. However, I could never afford such an expensive product and did not want to buy a cheap robot vacuum because they don't measure up to the more expensive ones (if you believe the reviews).

DILEMMAS ON THE WAY FORWARD

The Electrolux leadership team started to recognize the subscription model as a financially viable proposition for driving growth. However, it was a long-term value game, not a bet to secure gains in the next quarter. It would probably take two to three years to see the desired volumes and long-term value. There were several challenges going forward.

Managing internal perception and change

For decades, Electrolux had been operating a retail distribution model that targeted consumers with an expanding range of products. When the subscription model was piloted, it was viewed internally as a rental or leasing mechanism – taking the retail price and dividing it by the number of months – not as a growth play.

It was tough for Daniel's team to convince internal stakeholders about the value generated through a pay-per-use model. All Daniel could do was show the data analysis to the leadership team and say, "Trust me." And the response was:

Trust you? An outsider to our industry who has been here for just over a year? You might affect our relationship with the retailers in a negative way with this model.

Moreover, the subscription model had so far been run by a small team that had been given freedom, and to some extent protection, by Ola. However, this small engine was operating in the same market as the parent. It was also moving faster, but it needed the support of some regional business areas to scale the model.

The direct-to-consumer, relationship-based, software-centric and data-driven business model was in sharp contrast to Electrolux's manufacturing and retail-oriented DNA. The challenge was to create growth within a model that was not compatible with the existing models. A bigger strategic question was how much the new model should be kept separate from the core, potentially with a mission to run in a venture-capital way. Or how much it should be incorporated so that the core gained the benefits of the new model. Daniel commented:

We have lots of ways to scale, but what is the vehicle to scale in Electrolux if it's not retail- and hardware-centric? How do we make decisions? How to

allocate resources? What kind of teams will be needed? How will these teams be managed and measured? What budgets need to be approved? How to prioritize such models over other mainstream activities? It is a different view of how to manage risk and value – not all revenues are created equal.

Managing external communication

When the subscription model was launched, the key focus was on price. The communication on the website landing page was all about the price being a low barrier. Then it evolved to being benefits driven – better cleaning of corners, cost efficient, circular economy based, effortless, etc. Eight months later, by June 2019, the communication needed to be geared toward the value of the service. Daniel said:

We must be able to elaborate in a convincing way what value we bring to the user with this model in terms of performance and convenience at the given price point. Also, we still don't explain the value of the refurbishment and accessories which constitute a key part of the effortless proposition.

The team was working on creating a tool to incorporate the refurbishment aspect with two levers: (1) number of usage sessions per week; and (2) size of the house/apartment (0–300 square meters). For example, a user with a big house and who vacuumed a lot would consume a lot of refurbishments. Depending on the user's choices, the monthly price would adjust to show the equivalent cost of the refurbishment kit.

Electrolux had never developed a direct relationship with the user, in terms of knowing who the exact user was – resident of a flat or villa, in the city, suburbs or countryside, gender, age, etc. With the subscription model, it had all the data for every subscriber. Therefore, Electrolux could continue to build its relationship with users and gain their loyalty with the right combination of product and service offering. The challenge was to move from a short-term model to a long-term approach. Daniel said:

The more units we deploy, the greater the customer lifetime value we generate. Then, over time, this constitutes a barrier as we become more relevant and differentiated.

Scaling up the subscription model

Given that the subscription model had been proven, the challenge was to scale it while learning through an iterative process with consumers. As Daniel set about preparing the business case to scale up, Ola's directive was:

To do this properly, you need to really understand the consumer and figure out the parameters that really trigger usage and value.

Daniel and his team pondered several ways to do this:

- ***Adding more Pure i9 units per household***: Currently, Electrolux did not have a ready offering to enable more units per household, from both the business and the back-end systems perspective.

- ***Adding more markets***: Electrolux planned to launch a subscription model for Pure i9 and its connected air purifier Pure A9 in China – a key focus market. This was not a typical move for Western companies, which preferred first to scale in their home markets and then take their successful model to Asia.

- ***Switching more Electrolux products to the subscription model***: Over time, the subscription model could become an Electrolux offering, going beyond vacuum cleaners and air purifiers into the kitchen or laundry space. However, they would have to determine the criteria for choosing the products that would fit the subscription model. They decided to think in terms of reach and frequency (*see **Exhibit 5** for an analysis matrix*). The robotic vacuum cleaner was a good starting point because the reach could potentially be every household. The pilot data on frequency showed that European households used it 2–3 times per week and Asian customers once a day. The team's hypothesis was that the frequency would increase over time as customers got used to the concept. Daniel commented:

  There will always be a set of users who want to have the subscription relationship and a set of users that want to own the products. It could be 20:80, 50:50 or 80:20; we don't know.

- ***Collaborating with other electronics product manufacturers***: A bigger and more complex question was whether Electrolux should be constrained by its own product range, or should it explore partnerships with third-party manufacturers. Daniel elaborated:

  I bet we will be more profitable if we go beyond our own hardware. We could simply take charge of the business model as a package from Electrolux. Suppose I have 10 million subscribers, I can ask other hardware manufacturers, "What can you do for me?" I am sure they will be eager to do the deal, especially for future or adjacent product categories.

Taking all of the above into consideration, Daniel started charting the business plan to take Pure i9 to the next growth trajectory.

At the same time, Ola started preparing for a meeting with the top management team. How could he solicit interest from the business heads and secure a budget to successfully launch the direct-to-consumer model in the different regions?

Exhibit 1: Electrolux key brands
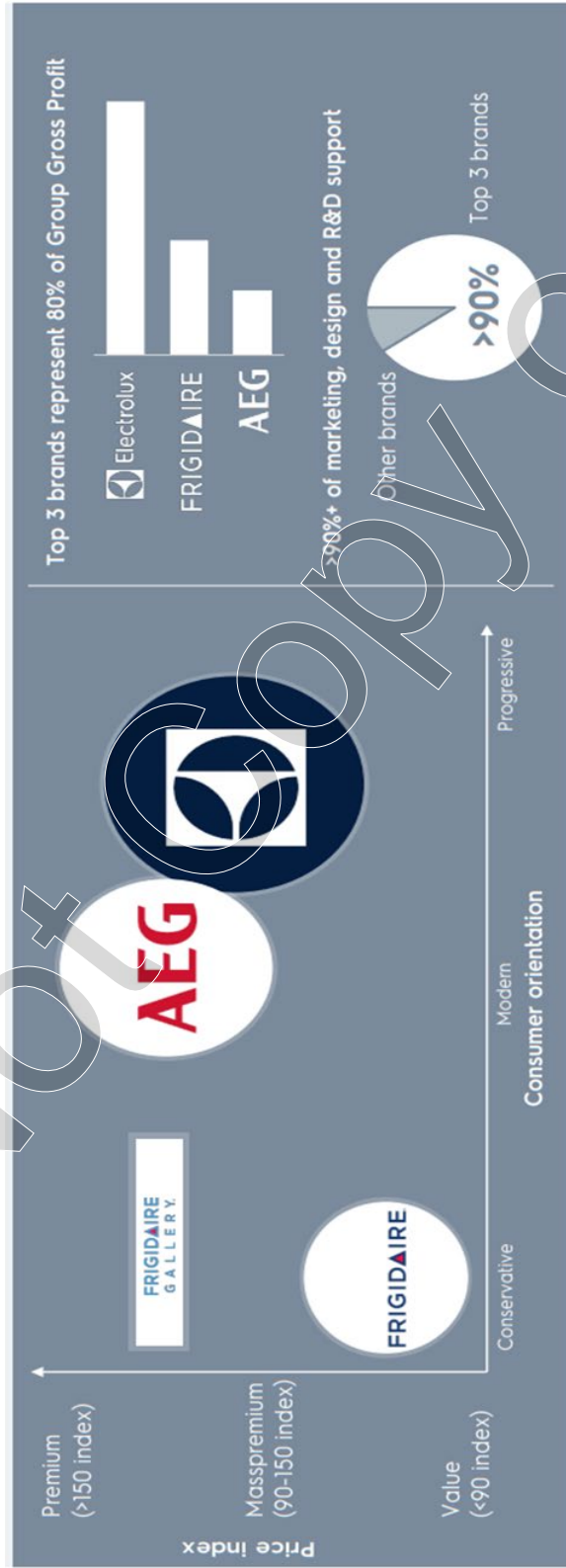
Source: Electrolux Capital Markets Day Presentation 2019

Exhibit 2: Emerging market strategy

	Seed	Nurture	Grow	Accelerate
Our focus	A clear market position with a focused offering in the emerging urban mass-premium market leveraging our global scale and the Electrolux brand			
Specific roadmap for each region	Markets with minimal presence	Markets with active sales and emerging brand position	Market with direct presence and established brands	Markets with direct presence and a faster growth plan
Markets	China and India	MEA Latin America outside ABC	Argentina, Brazil, Chile (ABC)	Eastern Europe SEA

Source: Electrolux Capital Markets Day Presentation 2019

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Exhibit 3: Electrolux financial overview by business area full year 2018 (SEK million)

Business area	Net sales	Operating income	Operating margin, %	Net assets
Major appliances EMEA	42,732	2,220	5.2%	3,392
Adjustment for MEA	-3,275	-268	-	-3,150
Adjustment for HC&SDA	3,863	176	-	269
Europe	**43,321**	**2,128**	**4.9%**	**510**
Major appliances North America	38,875	972	2.5%	2,395
Adjustment for HC&SDA	930	132	-	1,407
North America	**39,804**	**1,104**	**2.8%**	**3,802**
Major appliances Latin America	17,076	464	2.7%	5,554
Adjustment for HC&SDA	887	28	-	632
Latin America	**17,963**	**492**	**2.7%**	**6,186**
Major Appliances Asia-Pacific	9,165	648	7.1%	1,971
Adjustment for MEA	3,275	268	-	3,150
Adjustment for HC&SDA	1,936	62	-	102
Asia-Pacific, Middle East and Africa	**14,375**	**979**	**6.8%**	**5,223**

Source: Electrolux Restated Financial Information 2018: Effects related to new business area structure

Electrolux stock price performance (2016–2019)

Source: Yahoo Finance

Exhibit 4: Organizational structure for the consumer business

Four consumer-focused business areas supported by two global functions

Consumer Experience

Marketing / Design / Digital Ownership / CX Areas Taste, Care and Wellbeing

North America

Europe

Latin America

Asia-Pacific, Middle East and Africa

Global Operations

R&D / Industrial Operations / Purchasing / Quality / Supply Chain / Sourcing / Sustainability

Source: Company information

Exhibit 5: Hardware-as-a-service: Analysis matrix

Framework to analyze which products can be offered under hardware-as-a-service model

Size of the circle denotes the need for consumables (i.e. filter, brushes, ...) to maintain equipment performance (Bigger size indicates higher value in the consumables bundle)

Attractive space for hardware-as-a-service model

Vacuum cleaner
Price: $200 -$1,000 (device only)

Air purifier
Price: $200-$700 (device only)

Precision cooker
Price: $500 – $2,000 (device only)

FREQUENCY
No. of work sessions per household per week

High

Low

REACH

Low

High

% of households in any given market with the need for the given job (i.e. potential market penetration)

Source: Author