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University**



Graduate School of Life Sciences

KPN'S LIAISON MANAGEMENT TEAM STRIVES FOR INNOVATION

How a small team of primarily interns is making an impact in a large company

Master's Business Internship Report

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1 Management Summary

“We love innovations, we love scale-ups”: Liaison Management Team.

KPN is market leader in the field of internet and telephony and have become so big by continuing to innovate the latest developments. Within the strategic plan of KPN they have included that they keep the focus on innovation through KPN ventures and the Liaison Management Team (LMT). Through partnerships with disruptive start-ups and scale-ups, KPN can stay ahead of the competition and continue to make an impact in a changing society. This report will shed insight how KPN and the LMT is functioning as a business, analyses what the biggest bottlenecks are regarding innovation, proposes and argues those solutions and gives some recommendations.

As an intern within the LMT, I am responsible for identifying opportunities to innovate, suggesting start-ups that could help with this, following up on the follow-up steps and ensuring that all involved stay up-to-date. To this end, the various departments, here referred to as hunting grounds (HGs), are divided among the various working interns within the LMT. Through collaboration with the business owner (BO), the person responsible for innovation within the HG, we arrive at possible connection points for the LMT during discussions. It is important for the survival of this team that the LMT continues to make an impact in the form of new innovations through collaborations with start-ups. Recently, the number of interns working has become somewhat fewer resulting in less impact being made. This report examines where the most gains can be made now that will allow the LMT to make even more impact.

First of all, the problem was further explained by means of the five whys method. This led to hypotheses that were tested by means of a questionnaire to the BO's we spoke to. In addition, a previously used questionnaire from last year was also used. Based on the results of both surveys, the problems were identified. From this, the following problems emerged that the LMT could benefit for when solved: First of all, the LMT needs to be seen more as a (real) part of KPN. Due to the image of the interns and not always providing the right connecting parties, not everyone takes the LMT seriously enough. This is also evident in that BO's see the LMT primarily as fun inspiration and a way to have more time for other tasks. In the recommendation section some ideas and solutions are proposed that will result in a more professional team like consisting of more permanent employees. Secondly, the LMT needs to make sure that they know more about what is going on with the HG and BO and vice versa that the BO also knows how things are going at the LMT. For an intern it takes lots of time to get a feeling of how the business is really run. By having a list with all the platforms and products that are in place with additional information would definitely help the LMT in finding opportunities. Transparency is also an important part of innovation and is extensively explained.

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2 Plain Language Summary

This report is about realizing innovation through collaboration with scale-ups and start-ups. Innovation can be a new product or process, but also replacing a cheaper material, reorganizing production and improving methods. (Kline & Rosenberg, 2010) Start-ups and scale-ups refer to a different stage that a company may be in. The difference between the two is that start-ups are still validating their business model and scale-ups are further along in demonstrating significant metrics of traction on customers and are often already funded. (Cavallo, Ghezzi, Dell'Era, & Pellizzoni, 2019) The advantage of partnering with companies at these stages is that they can learn, make decisions, and act faster than larger competitors. (Humble, Molesky, & O'Reilly, 2015) Ultimately, start-ups and scale-ups need to have some background to certify their capabilities and use cases. Early-stage start-ups are often interested in accelerators from large corporates to get funding that allows them to test innovative products and services, which is often a task for so-called ventures. In addition, start-ups get a corporate customer that will be a critical step for validating the solution, gaining stability and scaling (up). (Onetti, 2021) A scale-up is beyond this point and shows competence by having partners and use cases, preferably phone companies for fit with KPN. In addition, both the number of employees and funding can be a good indicator of a disruptive company. These start-ups and scale-ups have a competitive advantage that early adaptors can take advantage of, leading to a so-called Chasm, the period when you can benefit from these innovations before the majority implements them. (Humble, Molesky, & O'Reilly, 2015) Some knowledge about the background and future of a start-up/scale-up helps to identify them as opportunities or threats.

Scale-ups with a good solution that could benefit KPN and that also have use cases and a few large customers is not enough to be immediately implementable for KPN and therefore in direct collaboration. Everyone who is responsible for a collaboration with a corporate and start-up/scale-up strives for a smooth and fast implementation. The truth is that in practice, the implementation of a technology, product or service takes many steps and can even take several years. Different parts of this process are penetration testing (PEN testing), proof of concept (PoC), piloting and contracting. The PEN test is a test of whether the product/solution is secure and meets the quality levels of the company that wants to implement it. The PEN test is performed by the customer and in a large company the development and operations team (DevOps) is responsible for this. The product or program is tested and a report summarizes all failed classifications with security risk weights with a proposal to meet the requirements. These breaches often need to be resolved before implementation begins, but often this must be done before the PoC and Pilot to create a safe testing environment. During a PoC, testing is done to see if the product, service or platform does what it is supposed to do and if the criteria that need to be improved are met. These criteria must be measurable to get a value or result that confirms the solution works. If the PoC is successful, the pilot can be started and the product is tested on a larger scale and modifications are made to implement it in the organization. The contract ratifies the collaboration and defines agreements on duration and costs. Because of all these steps and especially when one of them requires follow-up steps, the process takes more time.

3 Introduction

The liaison management team (LMT) ensures the innovation of different departments within KPN. Led by a manager, a team of preferably 10-15 employees and interns is deployed to help innovate various KPN departments. Since 2018, the manager of this team is Marie-José van den Boomgaard. She personally shaped this team as it is today. She based her thoughts and ideas for this team on previous knowledge and experience gained from working with young students.

Working with young students brings several advantages to the floor. Young students are often eager to learn, are more curious, and have learned new ways to put things to the test. As the leader of the team, Marie-José not only teaches the young students how innovation can be achieved in a company under implementation of soft skills. She also learns from the students herself, who have almost the same drive for improvement as herself, by the new theories and techniques taught at universities.

After all, implementing innovations in a company does mean being open to change and adapting to known circumstances. This is perhaps even more true for this team of innovation analysts. Innovation can be implemented through collaboration with start-ups and scale-ups or by research and development of the company itself. The benefit of working with start-ups and scale-ups is that they are being able to learn, decide and act faster than current ways, this way start-ups can disrupt businesses. (Humble, Molesky, & O'Reilly, 2015)

Parallel to being motivated to make changes within KPN and thus make her mark on the company, Marie-José is also judged on the impact made for KPN. For the survival of this team, it is important to pursue impact for KPN by making (impactful) deals. Recently, the number of deals made and their impact has been declining according to Marie-José. One explanation for this is the reduced number of employees on the team, which is the downside of using a team of mainly interns. As the offer and demand of interns changes over periods the LMT needs to find ways to make more and keep making impact besides the changing team composition.

This report addresses the issue of making innovative impact in a large company like KPN. How can KPN's LMT make more impact for KPN by working with innovative start-ups/scale-ups? In addition, the LMT needs to create more deals between KPN and start-ups/scale-ups. To answer this question, several ancillary questions are also raised. It is important to determine what the main bottlenecks are in the deal-making process and why they occur. How can we prevent future deals from falling through at that stage? In addition, how can we make the process of implementing innovations simpler and clearer for stakeholders. One way could be by making innovations more important in a company. But how can we make innovations more important to stakeholders?

4 Company & Market Analysis

4.1 History

To begin analyzing the KPN company, first a brief history from the beginning to the company KPN is now.

In 1876, Alexander Graham Bell, along with 3 other inventors, invented the telephone and filed for a patent on the invention. (Beauchamp, 2015) The invention of the telephone would go on to become one of the greatest milestones in American history. The following year, Bell founded the first telephone company that he named after himself, which later grew into the American Telephone and Telegraph Company (AT&T). (Brittain, 2005,) On June 1, 1881, the first public telephone network in the Netherlands was put into operation by the Nederlandsche Bell-Telefoon Maatschappij (NBTM). (KPN, Onze geschiedenis, sd) The first few years 49 people were connected who could only reach each other within Amsterdam, but after 1888 connection to Haarlem was also possible which led to the beginning of a widespread network.

In 1893 the Administratie der Posterijen en Telegrafie (P&T) was established, which in 1915 was converted into a state company, the Staatsbedrijf der P&T. This led in 1928 to State Company of Posts, Telegraphs and Telephony (PTT). When the PTT became independent on January 1, 1989, the name changed to the Koninklijke PTT Nederland N.V., which is KPN for short. (Wikipedia, 2022) Nevertheless, PTT remains a used reference to KPN in everyday business. A nice fact: KPN is also called Royal KPN, which is in Dutch Koninklijke KPN and also the K of KPN, so that's double.

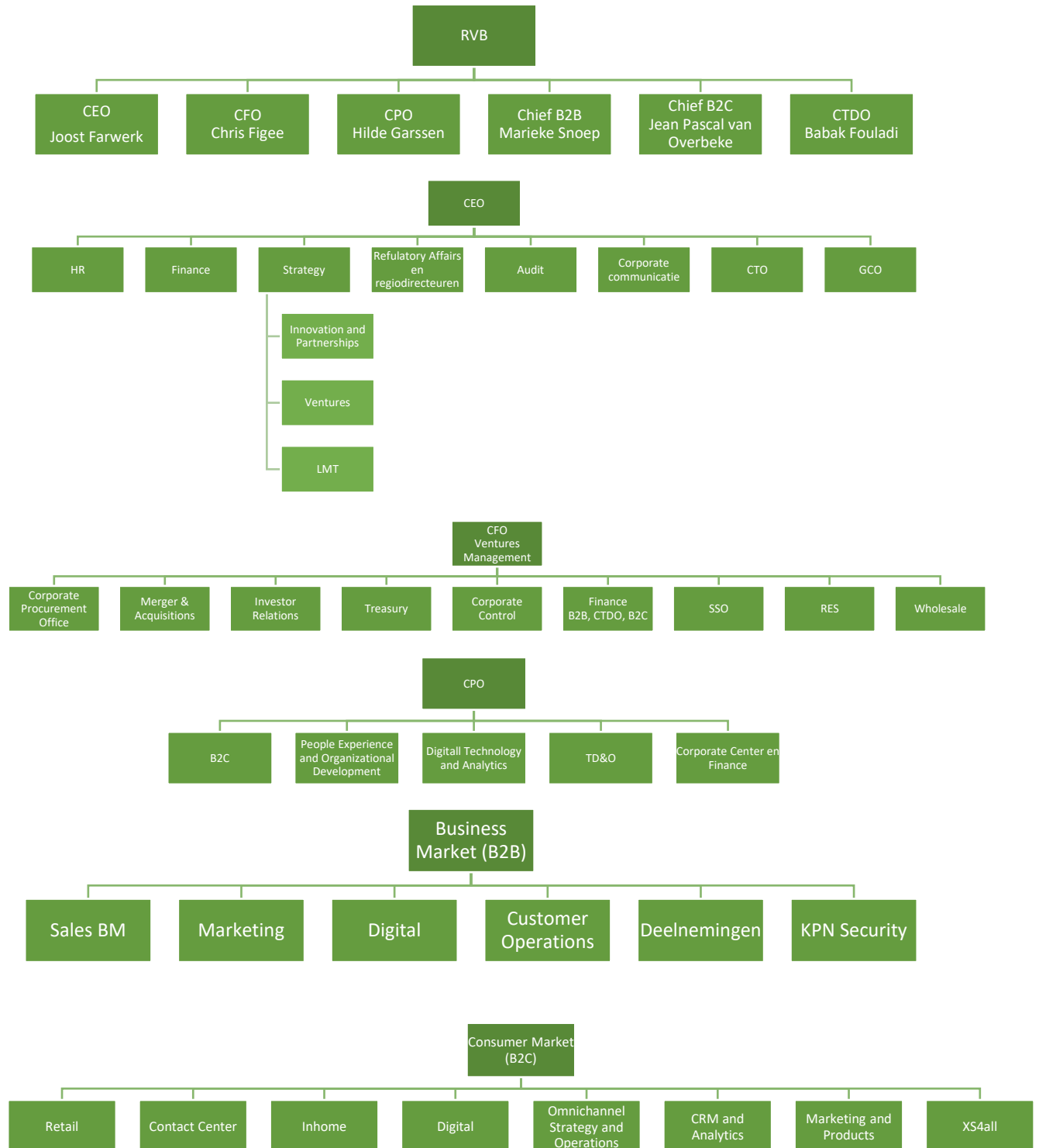
Since the beginning of the 21st century, KPN has been at the forefront of digital innovations and acquiring major competitors, rapidly increasing its customer base. KPN first started by offering landline and mobile telephony, but soon added other services such as TV and internet. Over the last 10 years, KPN has been on the cutting edge of replacing copper lines for fiber optic cables and is continuing its nationwide 4G coverage with the transition to 5G.

Starting in 2015, innovation is being fully deployed with the creation of two new business areas: KPN Ventures and KPN Technology Labs. On the one hand, investments will be made in promising companies and on the other hand, by our own experts to develop new applications themselves. This initiative was joined by the LMT that looks for win-win collaborations with start-ups/scale-ups and various departments of KPN. Each team leader has a role in identifying opportunities and/or identifying shortcomings in their strategy. Innovation in a team is often difficult to achieve. Team leaders and managers prefer to manage their team and do not find the time to invest or prioritize analyzing the team and identifying areas to improve. This often results in teams underperforming and working with old equipment or platforms. Ultimately, this can lead to a complete reorganization as new techniques allow full-time employees or part of their positions to be eliminated. The LMT supports the innovative role of the stakeholders and team leaders of the different departments of KPN.

Since 2015, 300 deals and projects have already been achieved with start-ups and scale-ups. This includes co-creation as well, for combining knowledge and technology to arrive at a joint product or service, and distribution, when the solutions of scale-ups and start-ups fit KPN's products or services. In the same period the number of employees has been decreased from 15.000 in 2015 to 9.500 now. (KPN stock Overview, 2022) This decline in employees can be attributed to the rise in technology.

4.2 Organizational Structure

The board consists of six people from different backgrounds, two of them women and four men, see Figure 1. It can be concluded from this that the board is diverse. (KPN in één oogopslag, sd) The rest of the main organization continues under the RVB. The Liaison Management Team is part of the strategy and falls under the role of CEO.



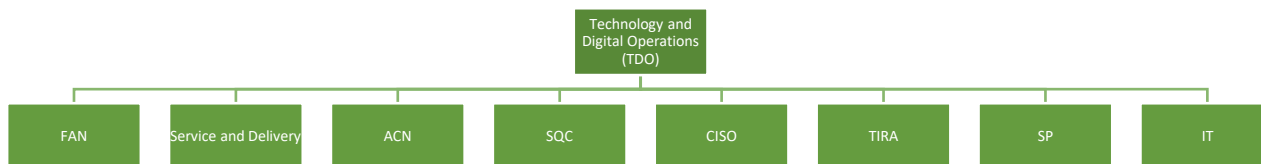


Table 1: Organizational structure of KPN. (KPN in één oogopslag, sd)

4.3 Companies Mission

On KPN's site their mission statement can be found: (Our Mission, sd)

'The Netherlands is digitizing at a rapid pace. We shop online, work from home more often and arrange more and more things digitally. This includes, for example, healthcare and education. Secure, reliable and fast internet is therefore becoming increasingly important. KPN wants to make the Netherlands the best-connected country in the world.'

'We are doing everything we can to connect everyone in the Netherlands to a sustainable future. We are passionate about building safe, reliable and future-proof networks and services so that people and devices can be connected to each other anywhere, anytime. At the same time, we offer and seize opportunities for a prosperous and cleaner world thanks to our sustainable approach.'

'KPN has believed in the power of connection for almost a century and a half. In 1881 we created the public telephone network in the Netherlands. On a small scale, our country was first introduced to the wonder of telecommunications. It was the basis for today's widely branched KPN network, which reaches to every corner of the country.'

'While the telegraph only sent 'beeps', today our cables, antennas and transmission masts carry vast streams of information every second. Phone calls, but above all more and more data. From WhatsApp messages to television programs, from Spotify music to work documents. On top of this come the bits and bytes that are sent, without any human intervention. Smart meter boxes that read their own meters or garbage containers that report that they are full.'

'We may not always think about it but all this technology has a big impact on our lives. Your smartphone keeps you in touch with the world around you. KPN's technology enables you to do what you enjoy or find important. Watch your favorite series when it suits you and work where you want. If you are connected, time and location are no longer an obstacle.'

'Technology is also making our lives more enjoyable in more invisible ways. We enable modern ways of working, teaching and caring, in a secure way. Smart applications in industry to reduce energy consumption or in healthcare to increase the independence of patients and the elderly. In this way we help the Netherlands by making life more sustainable, safer and more enjoyable. Our high-quality and finely-meshed network and our diversity of services offer an inexhaustible range of possibilities.'

'Technology should be understandable and simple. No effort. No hassle. It should also be reliable. Your privacy and data must be handled with care. At home, at work and on the road. To be able to give that guarantee, we continuously invest in our network and innovation. That's how we help the Netherlands move forward.'

'We want to be and remain even more of a beloved brand, including by remaining at the forefront of sustainability and contributing to a better society. That is why sustainability, innovation and inclusiveness are embedded in our strategy, organization and the things we do. For example, we stimulate innovation by enabling new functions, for example in healthcare and education.'

'Since 2015, we have operated 100% climate-neutral and only use green energy. For the future, we are also setting the bar high for ourselves to increase our contribution to a better world. For example, we want to be virtually circular from 2025, as one of the first large companies in the Netherlands.'

A corporate statement is essential to the successful implementation of a strategy for any business. Therefore, the internal strategy analysis will be preceded by an evaluation of their corporate mission statement. According to the literature, an appropriate corporate mission statement contains at least the following four characteristics: (Ackoff, 1987) (Hooley, Cox, & Adams, 1992) (Levitt, 1984) (Porter, 1980)

1. The mission is broadly defined; in other words, the mission is defined around customer satisfying processes.
2. The mission is sustainable; in other words, the mission will remain relevant even in highly competitive and rapidly changing industries.
3. The mission is specific; in other words, it differentiates the company from others in the same industry.
4. The mission should reflect top management's vision for the company.

All those characteristics are met for the mission statement of KPN in the elaborate story on their site. Next to their mission statement KPN has three most important core values that will be used as a guidance and compass in all that is done: trust, courage and growth: (Our values, The basis of everyday work, sd) *'Having a clear common objective enables us to achieve more, maximize job satisfaction and create an inspiring work climate. We are the network behind the network. We want to be the preferred partner in digital life for our customers. To connect them, we build on trust, show courage and live to grow. With our attitude we make the difference for our customers. Now and in the future.'* Is readable on their site together with documents about subcodes, fraud cases and sanctions of 2021, human rights statements and privacy statement.

- Trust: Quality and reliability for colleges as well as for the consumer by trusting each other and giving space and work together to grow.
- Courage: To get the action and the result one need to dare to make decisions together. Even when the pressure is high KPNs leadership is based on values. Breaking the status quo by speaking to each other in case something is not working or not done right.
- Growth: Growth is already mentioned a few times before and the addition mentioned is that being open to new visions and working methods makes the employee and KPN invest in personal development and that of others. Taking initiative and asking for help and feedback makes working at KPN fun.

If these core values are not sufficient, KPN also has purpose aims in addition in the form of wanting, doing, balancing, asking and appreciating. These aims are being addressed in spot on modules used for trainings in the academy environment of KPN. The purpose aims do not need additional explanation as they are already mentioned in the mission statement and core values.

4.4 Products and services

KPN began by offering only fixed and mobile telephony, then for a while also provided mail. Today, KPN's product range has vastly expanded, offering services for every kind of customer on communication, information, entertainment and commercial services through single-play and multi-play packages. (KPN in één oogopslag, sd) In addition, KPN has several brands for customers to choose from, including XS4ALL and Simyo. Besides private customers, KPN also has a complete range for all sizes of companies and wholesale with ICT services and workplaces.

In addition to providing all kinds of phones with and without subscription, KPN also provides the internet connection, both fiber optic internet, DSL internet and IT services such as cloud, security and workspace. (KPN N.V. SWOT & PESTLE Analysis, 2021) KPN also ensures that you have the best connection anywhere in the house by providing a router with possible Wi-Fi enhancers with your subscription.

KPN currently has 5.7 million mobile subscribers, 3.1 million broadband households and business, 3.5 million consumer households and 1.5 million fixed-mobile households.

4.5 Awards and Prizes

In 2022: (Ranglijsten en Awards, sd)

- Ookla: Best mobile network of the Netherlands.
- Ookla: Fastest 5G of the Netherlands.
- Consumentenbond: Best all-in-one glass fiber (fourth time in a row).
- SBI: Most sustainable Telephone Brand in 2022.
- Corporate Knights: 13th of the 100 most sustainable corporations in the world.
- Carbon Clean 200: 56th place in the 2022 Carbon Clean 200 list.
- Workforce Disclosure Initiative: High or maximum scoring for the second year in a row.

Before 2022: (Ranglijsten en Awards, sd)

- Tweakers: First place mobile provider 2020/2021 and second place internet provider.
- Global Cyberlympics 2018: World champion cybersecurity contest.
- Europe's corporate start-up star: In 2020 third time in a row most active and successful collaboration with start-ups.
- Science Based Targets: Long term aims are acknowledged.
- Privacy Waarborg: DDMA Customer DATA Award 2019
- Integrated Reporting: Since 2022 reporting on industry-specific recommendations for the telecommunication services of the Sustainability Accounting Standards Board.
- Tax Transparency Benchmark: Shared 3rd place in 2021
- FTSE4GOOD: Listed in the FTSE4GOOD Index Series.
- Reputation award: The best reputation company in the field of Industry Adjusted Ranking of the Netherlands in 2020 once again.
- Vugeo Eurozone 120 and Benelux 20: Listed once again in 2021.
- Carbon Disclosure Project: Included in the CDP's list with a score of A- in 2021.
- MSCI: AAA rating for resilience to long-term financially relevant ESG risks.
- Dow Jones Sustainability Index: World ranking for the 10th time in a row.
- EcoVadis: Platinum medal (which is top 1%) as a recognition of their EcoVadis Corporate Social Responsibility.

4.6 Micro and Macro Environmental Analysis

This section is intended to provide a clear picture of all the forces at play inside and outside of KPN.

4.6.1 Porter's five forces

With Porter's forces model we identify the external microenvironment of KPN

1. Rivalry among existing competitors

KPN's biggest competitor is VodafoneZiggo, based on market share. Currently, KPN and VodafoneZiggo both have similar market shares between 35 and 45%. (Spaansen, 2022) T-Mobile is the third largest with 5-10% market share. The remaining competitors have the rest of the 1%. It is difficult to indicate a fixed percentage because the number is quite variable, but shows the picture. In 2016 was het no ganders en had Ziggo de overhand met 43% tegenover 41% van KPN. (KPN - Is A Dutch Telecom Provider The Next One To Be Acquired?, 2016)

Based on last year's figures, it seems that KPN and VodafoneZiggo are moving closer and closer together. Many comparisons still show that KPN is rated best by their customers and has the fastest connection. (Velema, 2022) However, it is expected that KPN will be on top again this year because VodafoneZiggo saw an important advantage disappear in the form of F1 TV. (Leeftink, 2022)

2. Threat of substitute products

Depending on the product, the threat of substitute products is very high for KPN and The Netherlands in particular. In the area of phone supply, the market is fierce with several phone companies, varying in size. KPN is often later than smaller companies in introducing new products and often copies at what other phone companies offer. Smaller companies selling replacement products to KPN in the Netherlands are successful because they are cheaper. KPN's strategy is to identify this competitor and offer them to become partners and fall under KPN's product offering. In this way, the threat of substitute products can be countered. Substitute products of non-rival competitors, often telephone companies in other countries, can be an advantage for KPN in the form of knowledge spillover; knowledge is shared between non-rival competitors. For other products, such as offering a complete and perfectly functioning Internet, TV and telephone subscription, the market is less competitive.

3. Threat of new entrants

The threat of new entrants is low because a lot of money has to be invested to be seen as a new competitor to KPN. As a competitor you will have to be able to measure up to the services and speed of KPN and VodafoneZiggo, the largest players on the market. Also, the chance that an already large foreign party will try to take over the Dutch market is rather small. Foreign parties are very unknown in their brand and therefore will not be able to penetrate easily. This is of course different for similar big brands with a product that does get sold all over the world, such as car manufacturers.

4. Bargaining power of buyers

The bargaining power of buyers of KPN can be considered reasonable. Until recently, the difference between KPN and VodafoneZiggo was small, both in price and valuation. This has now changed in favor of KPN, but it is still possible for dissatisfied customers to switch to VodafoneZiggo, as also happened to VodafoneZiggo when the F1 offering disappeared. The bargaining power of buyers has decreased in recent months due to the events and the market value of KPN.

5. Bargaining power of suppliers

Determining the bargaining power of suppliers is more difficult because there are many different types of suppliers. Some suppliers make products for KPN and others perform tasks for KPN such as laying fiber in the ground. Suppliers who make products that are useful for KPN are usually focused on mainly telephone companies and the market leader of the Netherlands is then a very important customer for them. So they would not want to try to lose KPN as a customer of their products. So the bargaining power is low.

For doing jobs like laying fiber, suppliers are less specifically focused on phone companies and can often do it for other companies that want to lay gas or water and so on. Here the bargaining power is much greater and should be taken into account.

4.6.2 Pestel

With a Pestel analysis the external macroenvironment of KPN is analyzed, see table 2.

Political	Economical
<ul style="list-style-type: none"> • Different laws and codes like: <ul style="list-style-type: none"> ○ The implementation of the European Electronic Communications Code • Huawei equipment may have caused surveillance risk to KPN users 	<ul style="list-style-type: none"> • Digitalization to be a catalyst for Netherlands economic recovery • Fluctuations in Dutch Corporate Income tax
Social	Technological
<ul style="list-style-type: none"> • Increased Internet and iTV usage during pandemic • Digital healthcare to stay beyond the pandemic • Consumer being attracted towards mobile convergence and adopting digital services • Public debate on health aspects of 5G 	<ul style="list-style-type: none"> • Many technological developments like: <ul style="list-style-type: none"> ○ Digital healthcare ○ 5G technology boosting digitization of Dutch society by IoT ○ The digitization and development of quantum technology changing routine of people
Legal	Environmental
<ul style="list-style-type: none"> • Potential restrictive regulations for telecommunication companies across EU markets and domestic markets • Wholesale broadband regulation passed by the Authority for Consumers and Markets 	<ul style="list-style-type: none"> • Dutch telecom industry focusses on SDGs • Netherlands focusing on clean technology initiatives • Need for circular and climate neutral

Table 2: Pestel analysis of KPN. (KPN N.V. SWOT & PESTLE Analysis, 2021)

Political

In every industry there are restrictions and codes that you have to apply and comply with, it is no different for the telephone and communications industry. Since 2021, the European Electronic Communications Code (EECC) has made some changes that will affect companies like KPN. (Start fase 1 EECC-wetgeving voor KPN EEN MKB, 2021) The new rules ensure that customers are protected and have more transparency. The first change is that telephone orders must be confirmed on paper and the second change is that an authorized person must have written permission to change providers.

The final example of what awaits us on a political level is the surveillance risk posed by Huawei in 2021. Huawei is the subject of widespread security concerns leading to eavesdropping in many Western countries. (Huawei ‘may have eavesdropped on Dutch mobile network’s calls’, 2021) Since KPN used Huawei technology starting in 2009, the Chinese company would have been able to eavesdrop on 6.5 million calls undetected. In response, KPN was one of the first European operators to exclude the Chinese company from its core 5G network.

Economical

Numerous digital innovations in the field of telecommunications are included in The Dutch Digitization Strategy of 2021 to lead the Netherlands to economic recovery after setbacks like Covid-19. Topics mentioned include allocation and distribution of frequency bands, setting clear national frameworks

through legislation and regulation (see politics section), promoting knowledge sharing with and between decentralized governments, and promoting sufficient competition and investment. (The Dutch Digitalisation Strategy 2021, 2021)

Then there are the different types of taxes that change regularly and affect KPN. On January 1, the corporate income tax (CIT) rate was increased from 25% to 25.8%. (Netherlands Corporate - Taxes on corporate income, 2022) Then there is the fiscal investment fund regime, the exempt investment fund regime, the innovation box regime and the tonnage regime.

Social

The impact of Covid-19 has been mentioned before. In a press release, KPN showed that their network's data traffic grew by 40% during corona, due to home working and streaming. (Data traffic on KPN network grew 40% during 'corona', 2021) That's twice the normal annual growth of data traffic. In addition, upload data traffic increased by 50% due to more video calls instead of people visits and the increased popularity of online gaming. For these unexpected events, it is important that KPN can handle the increased data traffic. Events also show an increase in data with a 30% increase due to a Dutch soccer match at the European Championship.

KPN has improved healthcare due to the corona event by developing new technologies and making possible for more video calling, see the section technological below.

The behavioral part of consumers is also an important part of the social segment. Study suggest that convergence of telecommunication infrastructures and digital services find that usage and increased user experience. (Loebbecke, Huyskens, & Jarvenpaa, 2008) Yet, their analysis suggests a convergence of familiar technologies, which may lead to the emergence of less technology-induced paradoxes. That there can also be resistance to digital innovations is also mentioned in a more recent study in which consumer resistance is the main cause of innovation failure. (Talwar, Talwar, Kaur, & Shir, 2019) The study by Talwar et al found that, for example, resistance to smartphone use stems from characteristics such as price, complexity, and social influences. More generally, Talwar et al said that compatibility, perceived usefulness, complexity, perceived benefits, self-efficacy, and innovativeness were the main limitations of digital innovations.

In case you missed the news about the public debate on the health aspects of 5G in The Netherlands, here is a brief recap. In 2020, part of the population thought that the advent of 5G would be accompanied by health risks and that corona would also be created by 5G. There was an aversion to transmission towers and they were set on fire resulting in no internet connection around there and the emergency number 112 could not be called. (Waarom worden door heel Nederland zendmasten in brand gestoken?, 2020) In a response, the government let it be known that it is adhering to the precautionary principle by applying and monitoring the exposure limits and the scientific developments on 5G. (The Dutch Digitalisation Strategy 2021, 2021)

Technological

One of the opportunities KPN saw in recent years had to do with the Covid-19 pandemic. (Grip op digitale zorg, sd) There was a growing need and demand on medic calls and safe workplaces where KPN Health jumped in the gap with alternative methods of communicating with patients. KPN's mission was to promote digitization while maintaining personal contact at sufficient network capacity. This part of technological progress has led to new horizons leading to video communication and remote measurement (exchange). Currently, KPN is still looking for opportunities to innovate the care with innovations like smart sensors and camera surveillance.

The next generation mobile internet (5G) has led to a boost in the digitalization of Dutch society. New connections are possible due to a faster network, compare it to a digital highway instead of a paved road. (Slimme digitale en IoT-transformatie dankzij 5G, 2020) In short more devices are connected leading to real time monitoring and communication between different devices. The all-encompassing term for all this is called Internet of Things (IoT) and the developments are following each other in rapid succession, leading to the connection of more than a million devices to the Internet.

Other technological developments that can contribute to enhancing KPN's status are artificial intelligence (AI), machine learning (ML), APIs, Blockchain, identity management, mixed reality, photonics and quantum technology (QT), see Figure 1. All of these technology trends are summarized in the KPN Technology Book and is for the information and introduction towards KPN employees. (Baloo, Brands, & Steels, 2018) This is an example of how KPN aims to stay ahead of new technology. With the second quantum technology revolution coming, people's lives will fundamentally change with quantum computing. In addition to opportunities, this also creates new threats in cybersecurity that KPN needs to be aware of. To be on top of this, KPN is working with universities such as TU Delft, TU Eindhoven and QuTech.¹

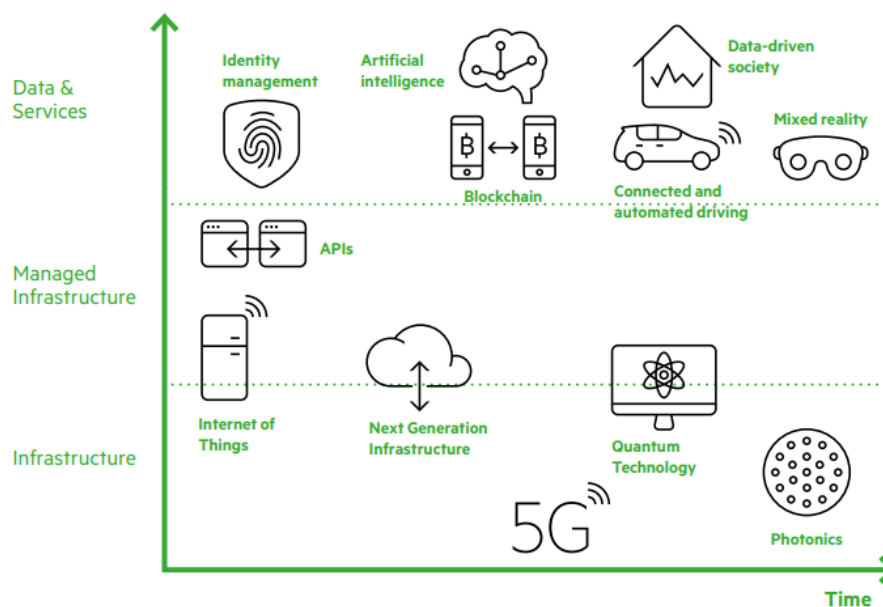


Figure 1: Timeline and the field of the "new" technologies summed in 2018. (Baloo, Brands, & Steels, 2018)

Legal

There are many examples of laws and codes that KPN need to be aware of, such as: the Personal Data Protection Act and everything else that comes under telecommunications law.²

Another example of legal issues affecting KPN is the wholesale fiber regulation. In 2020, KPN and VodafoneZiggo won an appeal against the Authority for the Consumer and Market (ACM) over wholesale access to KPN's copper and fiber networks. (Wholesale Fiber Regulation Overturned On Appeal In The Netherlands, 2020) The court ruled that the joint dominance of KPN and VodafoneZiggo

¹ QuTech is a research institute for quantum computing and quantum internet. <https://qutech.nl/>

² For an overview of telecommunications law guidelines and laws, please visit <https://www.acm.nl/nl/onderwerpen/telecommunicatie/wet--en-regelgeving/wet--en-regelgeving-telecommunicatie>

had not been sufficiently demonstrated, but remained concerned about competition in the telecom market.

Environmental

The Dutch telecommunications industry, and KPN in particular, does a lot in the area of the environment. There is increased interest in this area from both consumers and the government. KPN believes that consumers recognize and acknowledge the efforts KPN makes to be more sustainable. (KPN chosen most sustainable brand in the Dutch Telecom sector, 2020) The drive for sustainability stems from the changing environment and the reaction of world leaders and public administration to this. Policy is based on Sustainable Development Goals (SDG) and companies have to implement it. (Sustainable Development Goals and Public Governance, sd) In the Energy Agreement for Sustainable growth states that by 2050 the Dutch Government want the emission of greenhouse gasses to be zero. (Central government encourages sustainable energy, sd) The government offers incentives for businesses to invest in sustainable energy for: geothermal heat, solar parks, smart technologies, heat pumps, biomass boilers and all range of energy-efficient technologies.

Both KPN and the LMT are taking steps toward the sustainability goals and a sustainable future. Last year, KPN used 45% less energy than in 2010, despite the increase in network usage. (KPN is milieubewust, sd) One way the Liaison Management is contributing to the environmental goals is that in September we are organizing an event for start-ups/scale-ups and corporates only based on SDGs together with a company that advises on SDGs.³

4.6.3 SWOT analysis

The risks and concerns, as well as the strengths and opportunities, are shown in a so-called SWOT analysis in table 3.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Best and fastest 5G network as well as leading glass fiber coverage • 5G field labs • Strong marketing position and brand reputation • Strong liquidity position and stable investment-grade profile • Provider of critical communication services to governments • Solid supplier base and partnerships • Knowledge spillover 	<ul style="list-style-type: none"> • Increased investment due to accelerated construction of fiber optic networks • Ongoing cases of internal fraud and corruption • Increase in fixed subscription prices
Opportunities	Threats
<ul style="list-style-type: none"> • Joint venture with APG to further accelerate fiber rollout • Investing in the construction of new technologies and high-quality mobile infrastructure • Developing a future proof and technological infrastructure 	<ul style="list-style-type: none"> • Not abiding by court ruling and maintaining wholesale broadband • Increased competition to limit market share growth • Slow process of implementing new innovations

Table 3: SWOT analysis of KPN. (KPN N.V. SWOT & PESTLE Analysis, 2021)

³ For the event the author is organizing visit: <https://www.eventbrite.nl/e/tickets-impact-speeddates-powered-by-phi-factory-kpn-352525050917>

Strengths

In addition to their leading role in laying and connecting fiber, KPN wants to stay ahead of the competition by being the best and offering the fastest 5G network in the country. For this challenge, they have partnered (among others) with the Algemene Pensioen Groep (APG) to meet their targets of nationwide fiber coverage by 2026. In this way, KPN is ensuring the future of the Netherlands for the coming decades in terms of connections.

Their field labs are an active way to get ahead of the competition. 5G solutions can be tested at locations such as the Johan Cruijff Arena, supporting connectivity during events and improving security services. Field labs are being used for several other projects, such as for drones.

The high quality of the connection resulted in a strong marketing and brand position for KPN. The brand position can be identified as lean for consumers, businesses and large business customer relationships. This year, KPN has made its biggest commercial breakthrough in the market as they look to use their current strong position more as an unfair advantage over their biggest competitor.

Their current and improved financial position has created new investment opportunities. See section "4.8 Financial Statements" for more information on this.

KPN is responsible for the operation of the Netherlands' emergency number. The government has entrusted KPN with this responsibility as the company best suited to do so. This determination will therefore give KPN an extra boost for their brand. It can also be a threat if things don't go well, as we saw in 2019. Due to a huge network failure, the emergency number 112, as well as the other service number and the 4G network did not work for several hours. (KPN trekt boetekleed aan na 112-storing in 2019, 2020) As a result, KPN had to go through the slick and CEO Joost Farwerck had to make an official statement. Since then, much has changed and KPN has become more reliable by making 112 more of a priority.

As already mentioned in the PESTEL analysis, KPN is on top of knowledge spillover. KPN is using their position as the marked leader and brand optimally to share knowledge with every beneficial company. From other companies that are digging in the ground to international non-rival telecommunication companies. KPN is keeping their network strong.

Weaknesses

Due to the increased amount of demand for fiber, KPN and Glassport decided to invest another 1 trillion in the construction of fiber. (KPN to expand fibre network, 2021) This leads to a huge investment that is not immediately recouped.

Just as fraud and corruption can occur at any other company, it also happens at KPN. For example, between 2017 and 2018, there was an employee who placed fraudulent orders for KPN products through a KPN work laptop and had them delivered to people who then resold them. (Ex-medewerker KPN veroordeeld voor fraude met gestolen laptop, 2022) Yet KPN should not only watch out for what happens within KPN. For example, KPN's Swedish partner Ericsson is involved in possible terrorist financing to IS in Iraq. (Mogelijke betalingen aan IS, corruptie en fraude door telecomgigant Ericsson in Irak, 2022)

As of July 1, 2022, KPN's subscription prices have gone up which in turn may cause customers to choose to go to a competitor after all because it is now getting too expensive. The reason for the price increase is that KPN can continue to invest and guarantee a secure network. (KPN prijsverhoging per 1 juli 2022, 2022)

Opportunities

The joint venture of KPN and APG to accelerate the rollout of fiber was a great opportunity. In addition to many new fiber optic connections, Glaspoort is creating a lot of extra value for all stakeholders. By 2026, 80% of the Netherlands will be connected to glass fiber. (APG en KPN starten glasvezelbedrijf 'Glaspoort', 2021)

Another possibility is the technological advances already mentioned, see section 4.6.2 PESTEL. In addition, investing in high quality mobile infrastructure remains important. This will contribute to the development of a future-proof infrastructure.

Threats

In addition to the legal part in the PESTEL analysis, there is still the threat that failure to comply with the court ruling to retain a wholesale brand could have consequences.

Despite our growth in many respects, this has not resulted in significant growth in market share due to increased competition over the past decade.

Another threat to KPN is the slow process of implementing new innovations. The competition may outperform KPN in this regard by implementing the capability first, which will give the competitor an unfair advantage. This is because KPN will not implement a new solution that has already been implemented by a competitor. Since the whole process of implementation has already been done by the competitor, KPN does not find it sustainable to go through this process again to offer the same solution. A real setback could be that KPN is halfway through the implementation when VodafoneZiggo implements it. The work done is for nothing. Fortunately, this only applies to products and services for customers and not to solutions for KPN itself.

4.7 Financial Statements

To get a good impression of how KPN is doing financially, I will show some statistics, figures and pictures.

First, let's start with the latest figures. The results of the past quarter have just come in and will be compared to the first half of last year. For comparison, KPN showed 2.6 billion euros in revenue and 408 million euros in free cash flow, which is an increase of 1.5% and 35% over last year. (Resultaten tweede kwartaal 2022, 2022)

These six months, 261,000⁴ additional households have been connected to fiber from KPN and Glass Gate, including 76,000 new fiber customers. Lastly, a growth of 105,000 customers on mobile subscriptions and +17 (was +15 in the third quarter of 2021) on net promoter score (NPS). (KPN, KPN delivers SME service revenue growth in Q3; on track to reach full-year outlook, 2021) NPS is a measure between -100 and +100 and answers the question of how likely you are to recommend the company to friends or acquaintances. (Wat is de NPS?, sd) It was not possible to find recent NPS scores for VodafoneZiggo. In 2021, Vodafone had an NPS of 15 and Ziggo had an NPS of 12, so on average KPN did better on NPS in 2021. It is expected that KPN currently has the highest NPS. (Our customers always come first, 2021)

KPN is listed on the stock exchange and over the past year has continued an upward trend from January, see Figure 1. At its lowest a value of €2.56 and at its highest €3.48.

⁴ The fact that KPN connects households to fiber does not immediately mean that they are also customers of KPN. KPN can also sell or lease the fiber.

€ 3,19 ↑ 15,09% +0,42 1J

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Figure 2: Stock of KPN of the last year to now. (Finance quote KPN:AMS, 2022)

The stock exchange shows a declining curve, which has also influence on the snowflake analysis of KPN on the stock, see figure 2. The snowflake figure was based on five categories and those categories consist again of six scores. Thus, how well the company is doing can result in a score.

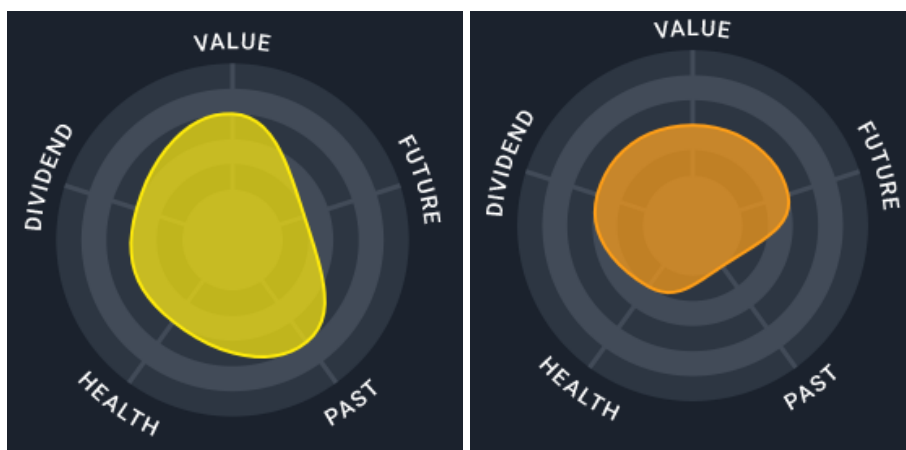


Figure 3: Snowflake analysis of stock value of KPN on 25th of July 2022 (left) and 29th of July 2022 (right). (KPN stock Overview, 2022)

The most important statistic for this section from figure 2 is its financial health. In short:

- The short- and long-term assets do not cover the short- and long-term liabilities.
- Net debt to equity ratio is high and its interests over it are not covered.
- + Debt to equity ratio is reduced over five years and is covered by its cash flow.

5 Liaison Management Analysis

5.1 Mission

The mission of the LMT can be found on the site of KPN regarding start-ups and scale-ups.⁵

'We believe in open innovation in order to make a real impact in a rapidly changing world. In cooperation with innovative stakeholders, in order to stay ahead. That's why we're creating a fruitful and innovative climate for start-ups and scale-ups. By combining our strengths with those of start-ups and scale-ups, we're advancing the Netherlands.'

'KPN is working with diverse start-ups and scale-ups in the field of innovation. Because every day we experience how valuable these collaborations are. For us and our customers. For the innovators, who we help to develop with our expertise and technology. And for society, which is rapidly discovering new solutions that make life smarter, simpler, and better.'

'We're constantly looking for win-win partnerships with start-ups and scale-ups. So, KPN has a special Liaison Management Start-ups and Scale-ups team. A team that contacts innovators: start-ups and scale-ups who offer solutions to challenges that KPN is looking for answers to. We work in a demand-driven way and seek the best innovators with whom we can innovate together on specific issues. We share our knowledge of technology, marketing, and sales with these innovators as well as our extensive network of business partners and customers, so that these start-ups and scale-ups can grow quickly. And: with their creativity and boldness we can also improve KPN's products.'

'In addition, we invest via KPN Ventures in scale-ups that fit with our strategy. KPN Ventures offers these entrepreneurs access to our organization's expertise and services. And gives them the power to mature quickly.'

5.2 SWOT Analysis

The LMT must also be analyzed to get to the deeper core of the problem. This is again done through a SWOT analysis.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Organic structure • Slack • Young team of enthusiastic students • As interns are less costly than full time employees, more can be contracted 	<ul style="list-style-type: none"> • Takes long to orient and work optimal • Not that professional • Some interns don't have the right skills and knowledge • Interns are paid only a small compensation • Interns do not get a bonus for achieved objectives • The team is not assured of enough employees at all times
Opportunities	Threats
<ul style="list-style-type: none"> • KPN has the possibility to scout talents in between the interns • Young students think differently as longer working employees • Absorptive capacity 	<ul style="list-style-type: none"> • Short stay at the team and therefore loss of knowledge and experience over time • Business owners could not take the team seriously because of interns

⁵ <https://www.overons.kpn.nl/kpn-voor-nederland/innovatie/start-ups-en-scale-ups>

	<ul style="list-style-type: none"> • There can be times that interns are not looking for internships.
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Table 4: SWOT analysis of the Liaison Management Team of KPN

Strengths:

KPN's stance on innovation is good and exactly what the literature prescribes to keep a current market leader a major player in the future. To do this, innovations must follow quickly, and the decentralized organizational structure certainly helps. Still I think the organizational structure is still too mechanical, which has the advantage that many processes are efficient with high consistency and reliability. (Schilling, 2017) An organic structure would then lead much more to more room to move and improvise. Together with having slack in the team, which the opportunity to make your own work schedule and do what you would think would be beneficial to the company. (Nohria & Gulati, 1996) This is exactly what the LMT distinguishes itself in. The trainees have much more room to improvise and therefore more creativity. Creativity is at the root of innovation. (Humble, Molesky, & O'Reilly, 2015) Interns from different backgrounds think differently than people who have been doing the same job in the same place for a long time. This creativity will lead to seeing new applications and opportunities that other employees have not thought of before.

The LMT consists of a group of enthusiastic students supervised by a very experienced manager and assisted by a full-time employee who has been with the team a little longer. It is often the case with young students that they are more enthusiastic and driven than employees who have been with the same company for decades. Getting deals also involves some persuasion that young interns can certainly convey to the BO.

In short, the final strength of this team is the money they cost. Because interns cost only a fraction of an employee, you can hire more of them. The more interns employed the more can be picked up and work done. Moreover, more work can be done in teams, which will lead to make more ideas.

Weaknesses:

KPN's centralized work environment takes time to get to know. There is a lot going on and each BO has a different role. In addition, the LMT has a specific way of working with different systems that take time to learn to manage.

The above implementation time also results in the appearance of the intern at the expense of professionalism. Some interns still lack the right soft skills, hard skills or knowledge to give the BO the impression that they are being helped efficiently. Nevertheless, the team is often told that most BO's actually praise professionalism. So, this will be a question for each intern whether this is the case. During the application process, at least the incapable applicants are filtered out, but most of them still need to learn some skills. I am a good example of that, I still have a lot to learn to feel that I can help the BO in a professional way.

There is a difference in interests within the team. Every intern will say that their biggest goal is the same as the manager's goal: making an impact by closing deals with innovation. The manager is rewarded or judged on whether or not innovative projects succeed, but this is not the case for the intern. The intern ultimately has no reward for closing a successful deal, except for a happy manager who will give you a valuable farewell at the end of your work. The goal of the intern is ultimately to gain experience working within a large corporate. Ultimately, the manager can expect the intern to pursue a deal with all good intentions to make an impact but is not fair.

The final weakness of the team is that having interns can lead to a non-constant flow of incoming and outgoing interns. This can lead to understaffing of the team at times, which in turn can lead to the stagnation of search questions or search to innovation. In the end, some BO's cannot rely on constant help in the search for innovations, which results in them being more likely to search for solutions on their own or not engage in innovation at all. This also makes them less likely to come back to the LMT next time. Creating transparency in this area is important to keep BO's seeing the importance of the team.

Opportunities:

The manager's choice to work primarily with interns is that it helps her with new insights and techniques that interns have to make an even better and more efficient impact. Young students think differently and are often up to date on the latest technical gadgets. This is one of her ways of being innovative with the team.

The additional advantage that a young team of interns gives is that it is a good way to scout for talent. Because of the close cooperation and supervision, the manager has a good picture of the intern and his growth process. In this way, KPN can have a lot to gain from this department in the long run on an innovation and talent level.

Moreover, the team is good at recognizing and utilizing new knowledge and technologies, which is called absorptive capacity. This way, more opportunities for innovations can be identified.

Threats:

Interns only stay part of the team for a short time and will move on to something else after a few months. As a result, some of the knowledge and experience gained is lost. Writing a handover partly prevents the loss of knowledge, but the experience that a person has in a team cannot be compensated immediately. Whenever possible, the departing intern has a short period of collaboration with a new intern for this reason. The last thing the team does to counteract the loss of knowledge and experience are the daily meetings the team has with each other. In these meetings knowledge and experience is shared four times a week.

Some KPN employees do not even know that it consists mainly of interns, the BO's involved do. There will be BO's who are not influenced by interns and are not open to it. The presence of the manager at important meetings partially negates this, but it plays into the collaboration with BO's.

5.3 Impact Made by The Liaison Management Team

Within the team, we are told that we have been making less of an impact lately. But is this really the case and what is this based on?

There are several ways we can determine the amount of impact the LMT is making within KPN. The simplest is to look at the number of successful deals per year, see figure 4. These numbers are based on the figures from the CRM system and are presented monthly in an analysis report. If we base the impact on the number of deals made then the LMT is on track to get around 40-45 deals in total for 2022. That would be more than last year and that with a team that is run with a lesser staff than usual. Still, it is hard to say when a lot and when little impact is made with the number of interns on hand. This is because a deal usually does last a year or more and is therefore continued by multiple trainees. Most deals realized in 2022 are from the previous year or earlier, see figure 5.

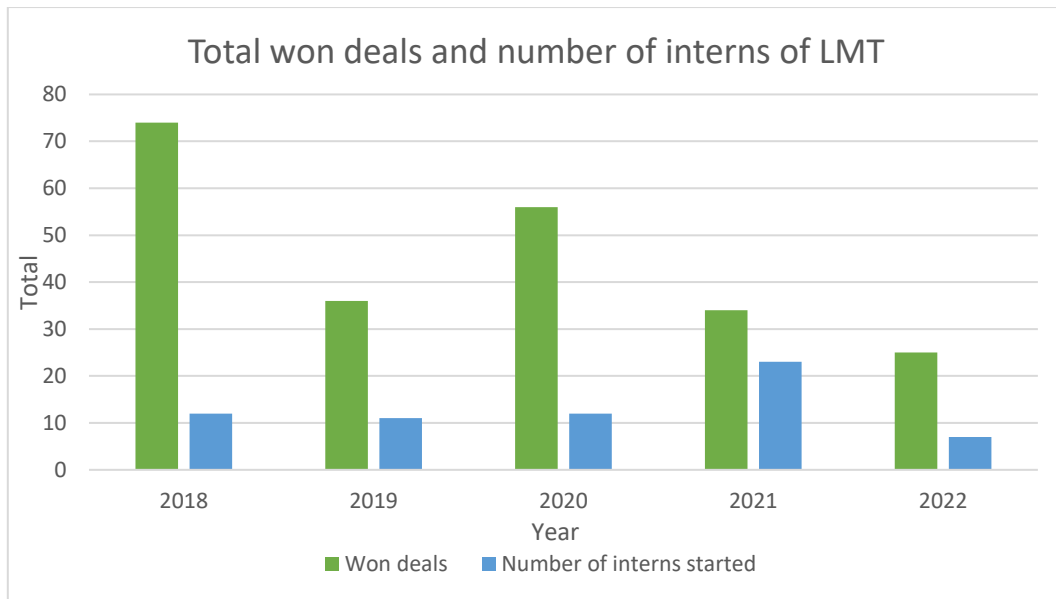


Figure 4: Number of won deals per year and the number of interns started that year of the LMT.

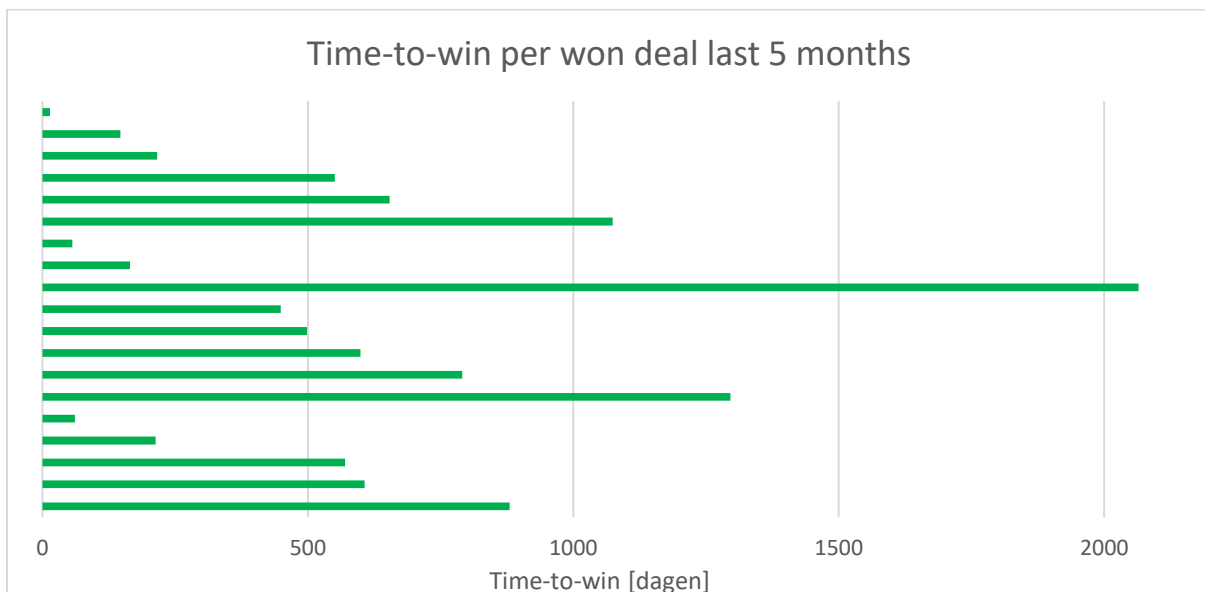


Figure 5: Time-to-win per won deal of the last 5 months of the LMT. The names of the deals have been removed due to confidentiality.

As you can see, there are some deals that came about in a relatively short time and often don't have much impact. For example, the top deal with shortest time is a collaboration of a platform for an event. Or in other words a collaboration within the LMT that doesn't make an impact for KPN. There are a few others of these in between.

All in all, it's hard to determine how much impact is being made at any given time and is rather a sense of value and the number of deals that have been made.

6 Research Question

The research question will be:

How can the Liaison Management Team make more impact in the collaboration with KPN and start-ups/scale-ups?

Side/sub questions:

- How can the Liaison Management Team adapt the total time from idee to implementation to make it more efficient/shorter?
- How can the Liaison Management Team identify more opportunities?
- How can the Liaison Management Team improve transparency towards our stakeholders, BO's and start-ups/scale-ups increased?

6.1 SMART Goal

This research question is made specific by making it specific, measurable, achievable, realistic and timed (SMART).

Specific

The goal is to make more impact in the Liaison Management Team in (one of) the following ways:

- Finding more opportunities of processes or products within KPN to improve.
- Helping KPN employees more in guiding the innovation process.
- Reducing the duration of the process from idea to implementation.

Measurable

It is difficult to determine whether the recommendations in this report will directly lead to more impact because impact cannot be measured directly. Whether more impact has been made can be determined in the following ways:

- The number of deals made over a long period of time (e.g., 1-2 years) is up and/or back to the previous level.
- The total value of innovation through collaboration with a start-up/scale-up for us has increased and/or returned to the previous level.
- On average, the process from idea to implementation takes less time than before.
- The number of KPN employees in direct contact with the LMT has increased.

Achievable

Whether the goal has been achieved must be measured over a long period of time. In the short term, there will be no change because it takes a long time for an idea to succeed. Ultimately, the experiences of the BO's will determine whether the recommendations have contributed to making the team more impactful.

Realistic

The goal is realistic because in the past more impact was made than is now the case. Of course, it is getting harder and harder to make an impact because more and more processes and products have been improved, but disrupting start-ups keep coming to the market with new techniques and platforms.

Timed

In six months' time, the progress of the improvements can be analyzed. Ultimately, in 1-2 years it will be possible to say whether more deals are indeed being made and deals are taking less time than before.

7 Research Conducted

First, the problem is thoroughly analyzed by the five why's principle to get a deeper understanding of where the problem comes from to find a suiting solution.

Results from a previous survey in 2021 are being used to get a feeling for what is needed and can be asked in a follow up survey. There were 20 responses.

The hypotheses defined in the five why's and from the previous survey of last year are asked to stakeholders in a new survey. 10 out of a total of 51 of whom the questionnaire was sent to, responded. The questions are:

1. What is your current position and in what department?
2. For what purpose are you working with the Liaison Management Team?
3. How do you rate the professionalism within the team? (1= lowest, 2= highest)
4. Please explain.
5. What are the benefits to you of working with the Liaison Management Team?
6. How responsible are you for innovation within your team? (1= not responsible, 5= only responsible)
7. How important do you think innovations are within your department? (1= not important, 5= very important)
8. How do you think KPN handles innovations? What could KPN do to help you even more?
9. The Liaison Management Team helps me to innovate through start-ups and scale-ups. (1= totally disagree, 5= totally agree)
10. The Liaison Management Team gives me more time for other priorities. (1= don't agree, 5= totally agree)
11. What do you experience as the biggest obstacle(s) while working with the Liaison Management Team?
12. How could we make even faster steps?
13. What do you think about the number of contact moments with the Liaison Management Team? (1= too few, 5= too many)
14. What is the ratio of time spent working with Liaison Management Team to what it yields? (1=bad, 5=good)
15. Do you have any interesting insights or other comments that I could include in my report or in general?

8 Results and Discussion

8.1 Problem identification through five why principle

Problem: *Not enough impact is being made by KPN's LMT by working with innovative scale-ups and start-ups.*

One of the reasons for this is that too few interns have been working in the team lately. With fewer hours available for finding opportunities within the company, the impact is smaller than usual. The day-to-day tasks, which are not always part of pursuing deals, are distributed among fewer people, at the expense of time. Of course, this problem is easily solved if more energy is put into finding both more interns and full-time employees.

For this report, it is more interesting to ask why there is so little impact and what the bottlenecks are during the different stages of the innovation process. During the internship, three main explanations were identified that complicate the process of coming up with a partnership with KPN and a start-up/scale-up:

1. *The whole process of implementing new innovative products and/or services from start-ups/scale-ups is long and consists of many steps.*
 - i. *Why is the process long and consists of many steps?* It is important that you execute each step carefully and think carefully about what you are doing. It is not only important that you think about each step of the process, but also that you ask the right people for their expertise. This applies not only to each step of the process, but you should think about who you are asking to participate and/or provide an update at each meeting.
 - ii. *Why is it important to think thoroughly about each step?* Each step requires different people from both companies. Trying to find a date when everyone is available can be quite difficult, especially if many people are needed for the meeting. Around holidays, it is often more difficult to arrange a meeting.
 - iii. *Why are different people needed for each step?* One of the few steps in the process are the penetration test (PEN) and the proof of concept (PoC). For a penetration test you need KPN's development and operations (DevOps) team and if you want to start a PoC you need the legal team for an all-encompassing contract.
 - iv. *Why does KPN have a lot of different departments?* This would often not be the case at start-ups and scale-ups, as they are small and don't have the budget for lots of experts. Implementing innovation with a start-up/scale-up can be faster because some steps can be skipped and/or fewer people are involved in the process. On the contrary, start-ups and scale-ups can take longer as there are fewer people working on a project and a lot of work needs to be done to reach the corporate quality and security levels.
2. *KPN believes it is important to have high quality products and fully functioning software that meet all security requirements. In addition, the customer journey must meet many high standards.*
 - i. *Why is it important for KPN to have high quality products and fully functioning software?* As the market leader, KPN needs to ensure that everything does what it is actually supposed to do and that there are as few failures as possible. It is also important to guide the customer quickly and simply through the processes and the questions they have.

- ii. *Why does KPN, as market leader, have to make sure that everything actually works and that's there are as few failures as possible?* Customers will lose confidence in KPN if they don't get what they expect and therefore go to another provider.
 - iii. *Why do customers lose confidence if KPN delivers products that do not work entirely and/or failures occur?* Customers pay for an internet subscription and expect to be able to use it without problems and then not have to look back. If KPN still has a lot of hassle and Internet outages, many customers will switch to a party that does not have this. The price they pay for this is then of less importance. Ultimately this also affects the Net Promoter Score (NPS), which measures to what extent a company is recommended and is therefore a good comparison statistic.
 - iv. *Why do customers expect that if you subscribe to the market leader that the Internet will work without problems?* The market leader is the one with the best product, service and the finest customer journey. The quality of the Internet used to be a lot lower, and nobody could guarantee a stable connection. Over the years this has changed and certainly in the Netherlands you can expect a good working connection everywhere. This is not yet the case in other countries such as France.
3. *Stakeholders often lack the time to tackle and implement new innovations.*
- i. Why do stakeholders often lack the time to put in innovations? This can have many explanations. One reason is that some stakeholders don't think innovation is that important and prioritize other things.
 - ii. Why do they consider other work more important than innovating? This can also have several reasons such as workload or the size of the team. Often the response to e-mails and appointments already indicates how open stakeholders are to innovation.
 - iii. Why does responding or not responding to appointments and emails indicate whether or not they are open to innovation? This is only about the communications with the LMT. Various reactions have shown that people in charge take the LMT as an extra, which has the consequence that when it gets busy it is the first to disappear. The responsibility for a department's innovation therefore lies with the LMT and not with the department, which is actually strange.
 - iv. Why is it weird that because of the LMT the responsibility of innovation partly shifts? Ultimately, department heads and stakeholders are responsible for their own innovation. The LMT can help them do that and takes the initiative which can make it feel like the responsibility is on someone else. The responsibility of the LMT is not on implementing innovations in different departments but on making an impact within KPN.
4. *Stakeholders often lack the money to tackle and implement new innovations.*
- i. Why do stakeholders have a limited budget? Often, department heads and stakeholders are given a budget in advance for that year to invest in new innovations.
 - ii. Why do stakeholders often have a budget and what is it based on. This is usually based on last year's projects and expenditures. How this is arranged at KPN is unclear and is discussed in the next section.
 - iii. Why are budgets based on previous expenditures and projects? It is often difficult to say in advance how much money a department will need to complete new innovations. Therefore, previous budgets and projects are compared. In addition, if a department has not used its budget (all) for a project that is likely to be scaled back

the following year. This often results in departments finding it harder to set up new projects at the beginning of the year and often thinking about them for longer than at the end of the year.

- iv. Why is it difficult to predict which department will need which budget? It depends on who is responsible for which part of which department and how busy those departments are. If a department has more time and a bit less budget, the department may choose.

8.2 Results of Survey

8.2.1 Previous Survey

Conducting a survey by the LMT is common practice and they try to do it every year. Coincidentally, this was done last year and not this year. So this gives a great opportunity to take advantage of this by creating a new survey aimed at making more impact. The previous survey was held at the beginning of last year on January 14, 2021. A total of 20 people completed the survey. The questions and information from the survey relevant to this study are listed and discussed below.

1. For what purpose do you work with the Liaison Team?

The responses to this ranged from finding a related start-up for a particular department, to new collaborations with start-ups, to scanning the market for new business to develop and/or boosting the current portfolio. This shows that everyone we work with is aware of what we can do for them. One person actually stated that we help him to improve sustainability within KPN. The feeling among the rest is that what the LMT does is mainly to propose start-ups and scale-ups without obligation. There is still room for improvement here because we want to take the next step. Making this clear could lead to us getting more out of search requests because we only pick up search requests that are really going to lead to impact because the BO wants more than just market research. The LMT can then work more efficiently and only pick up those search queries with the limited team.

2. From whom did the initiative to collaborate with the Liaison Team come?

9/20 answered with that the initiative came from the LMT, 5/20 answered that it was a joint decision and 6/20 answered that the decision came from the BO himself. Good to see that the initiative to collaborate not only comes from the LMT but that colleagues are actually aware of the existence of the LMT.

3. How many people within the Liaison Team did you have contact with in 2020?

This showed that on average a BO has contact with 5 people from the LMT per year. If we take out the manager that each BO speaks to, that's an average of 4 trainees per year. That's one intern every quarter, which is quite a lot considering each intern is with the team for 5-6 months. So if we include overlap in getting a new intern in, that's a maximum of 3 per year and 4 in total. Some BO's were around that number but also some indicated to be dealing with 10 interns. For IoT this is not strange because only leads are delivered there, but also the 5G department indicated this and that is too many.

4. How would you rate the professionalism of the Liaison Team (1 = lowest; 5 = highest)?

The average score was 4.35, with only grades between 4 and 5 (apart from one 3). This is obviously a high mark for a team of trainees who have not yet finished their studies and still lack the necessary experience.

In the comments, the following points emerged: The Liaison Management Team...

- is very tight on follow-up actions
- scouts very focused on the search question
- takes the initiative to push the boundaries of search questions and look for broader solutions
- is very enthusiastic
- likes to be challenged
- is sometimes given less priority by the BO to work together more intensively
- honors' agreements
- knows their role and respects feedback and proposals for improvement
- has a professional attitude
- thinks well
- is pleasant to deal with
- supervises the process of actual cooperation well
- is communicatively skilled
- reacts quickly
- is dedicated
- provides a good transfer to the next trainee
- works in a structured way
- has a looser approach than other departments
- learns quickly
- is efficient
- has a lot of variation in level
- unburdened and provides clarity
- sometimes provides the same start-up

5. How do you rate the knowledge of members of the Liaison Team about your business? (1 = lowest; 5 = highest)

The average score was 3.65, which is a lot lower than for professionalism. Reasons given for this are that in the past more depth was sought on the search question, sometimes having to explain things over and over again, the first few scouting rounds do not yield much and the question and wish do not match. This is where the LMT could certainly take steps. Nowadays, the manager places great value on a comprehensive and complete handover document. Whether this is now sufficient compared to last year is difficult to say. As an advice I would give, in addition to an initial introduction between intern and BO, to also include a knowledge round during that session. Here there can be tested whether the intern is aware of the required knowledge and the BO can give additions as a kind of teacher on what is important. This will prevent earlier and better right parties and more meaningful meetings.

6. What could the Liaison Team improve?
- Parties that resemble each other could be better clustered
 - Looking at broadening the scope of current parties
 - Keeping better track of what has and has not been discussed
 - Transfer knowledge better so that less time is wasted
 - A bit more towards KPN branding to be able to use the influence of the big KPN
 - More creativity, manage progress and connect internally
 - Find out what the real business wants
 - Be less pushing

- More permanent contacts and fewer trainees

This question already provides a number of interesting ideas that the LMT could implement. The way we present parties now is often that the detailed parties are listed below each other, see figure 4, but we could show the differences between the parties even more clearly by clustering them as they are on a comparison site, see figure 5. This way we can more clearly argue why.

[Workofo](#) | Frederiksberg, Denemarken | FTE:11-50 | Funding: n.a. | Founding date: 2018

1. Workforce management tool die op basis van AI de personeelsplanning kan maken.
2. Ze geven aan dat ze dmv hun tool 15% van de workforce resources kunnen vrijmaken.
3. Dit doen ze door meer dan 60 miljoen plannigen te evalueren en op basis van de specifieke business needs een optimale planning adviseren.
4. Het bepalen van de specifieke business needs gebeurt aan de hand van 80 parameters.
5. Met het plannen van werknemers houden ze o.a. rekening met workload forecast, skills & snelheid van werknemers en bieden ze de mogelijkheid om met werknemers te schuiven tussen locaties.
6. Klanten: Tele2 & Jysk

[PredictHQ](#) | HQ: San Francisco | Founded: 2015 | FTE: 51-200 (82 Li) | Funding: 22 mln

1. Verbeterd huidige forecasting modellen met machine learning, resulterend in verbeterde accuracy en processing speed. Dit gebeurt met Demand Intelligence (API) en is aangepast op de real-world.
2. Levert visibility, training en improvement van demanding
3. Gebaseerd op live en offline evenementen zoals sports, festivals, vakanties, weer, oorlog en protesten.
4. Niet zeker of dit ook mogelijk is voor de vraag naar glasvezel (of andere demand)
5. Gratis te proberen en mogelijk om direct met een expert te praten
6. Klanten: Domino's, Uber, BlueYonder, Accor Hotels etc.
7. Bekijk het filmpje op de [Hoofdpagina](#).

Figure 6: The typical way the Liaison Management team delivers promising start-ups.

	KPN	Ziggo
Werknemersbeoordelingen		
• KPN scoorde op gebieden hoger met betrekking tot 5: Totaalbeoordeling, Carrière mogelijkheden, Vergoeding en arbeidsvoorwaarden, Balans werk/privé en Cultuur en waarden.		
• Ziggo scoorde op gebieden hoger met betrekking tot 3: Senior management, Percentage aanbevelen aan een kennis en Positieve zakelijke vooruitzichten.		
• Beide scoorden gelijk op het 1 gebied: Directeur-goedkeuring.		
Algehele beoordeling (alleen voltijd en deeltijd)	4,0 ★★★★★ (gebaseerd op 532 reviews)	3,8 ★★★★★ (gebaseerd op 100 reviews)
Carrière-mogelijkheden	3,8 ★★★★★ KPN werknemers beoordeelden hun Carrière-mogelijkheden 0.5 hoger dan Ziggo werknemers.	3,3 ★★★★★
Vergoeding en arbeidsvoorwaarden	3,8 ★★★★★	3,7 ★★★★★
Balans werk/privé	4,0 ★★★★★ KPN werknemers beoordeelden hun Balans werk/privé 0.5 hoger dan Ziggo werknemers.	3,5 ★★★★★
Senior management	3,4 ★★★★★	3,5 ★★★★★
Cultuur en waarden	3,8 ★★★★★	3,6 ★★★★★

Figure 7: Comparison of KPN and Ziggo from www.glassdoor.nl.

Widening the scope of current parties is already being done these days. For example, in recent months I have recommended to several other departments a tool that the mechanics department is already using with the result that other departments are also starting to use it. This is something the LMT should continue to do and an additional option would be to look at current parties that do not come through the LMT of KPN for possibilities of broadening use.

To keep the BO sympathetic towards the LMT and not to frustrate him, it would be good if we kept better track of what has and has not been discussed. This is certainly already being done through the customer relationship management system, but once again focusing attention on this during the

transfer would not hurt. The same applies to transferring knowledge to the next trainee. Here the BO could assume a more prominent role as indicated earlier.

Creativity is an important quality that defines the LMT, that more creativity is expected is therefore important to include in the improvements of the team. What I believe the team is doing well is giving the team slack, which means giving the team the space and time to look for innovative solutions. (Antonczak & Burger-Helmchen, 2022) A study from a long time ago described that in order for the creative ability within an organization to surface you need several conditions. First of all, the most important body within an organization needs to express that they are positive about the value of creativity and innovation and also the working environment needs to express this in the form of the organizational design, system control and the reward system. (Cummings, 1965) The LMT gives its employees the privilege of allocating time for tasks as they see fit, as long as the time is spent efficiently on the right projects. But there is more to be gained.

Finding out what the business really wants is already something the team does well. Every meeting we start with what the prospects are for the next 6 months for the BO and his department.

Being less pushy is interesting that one of the BO's says that. From the LMT we do our best to introduce a lot to them and keep the momentum going. I myself am of the opinion that we don't take up a lot of time with what we do and can in fact save time, so there should be no question of us being obtrusive. As long as the BO responds to what is asked of him/her, it should not be necessary. The team is trying to keep the momentum going and for that we need the cooperation of the BO.

The recommendation to hire more permanent staff and fewer interns is being worked on in the meantime because it is currently difficult to get many interns and the work remains. Staffing the team entirely by permanent employees is not the way the manager wants to run the team as explained earlier.

8.2.2 New Survey

A total of 10 recipients filled in the survey. What I did for the old survey I'll do for the interesting questions of new survey.

1. What is your current position and in what department?

The recipients have the roles of: Sourcing Lead Tech Solutions / Manager CJ RSD & Fiber CM / Innovation consultant, KPN Security / Lead Best Access / Director Digital Customer Improvement / Product manager / CTO KPN Security / Product Manager / Business consultant at SME Operations.

By not having to fill in your name but only your position/department it was possible to fill in the questionnaire with still some anonymity.

2. For what purpose are you working with the Liaison Management Team?

The answers revealed that original was the collaboration for recruiting people. For the rest, the answers mainly contained that the LMT provides inspiration, next to that it comes up with ideas for innovation and finally the sharing of knowledge. What is missing here is the ultimate goal of the LMT, which is to make an impact by providing guidance from search to implementation and to unburden the organization. This is not mentioned by any BO. This really shows that the team is seen as a source of inspiration, but that is not the way to realize the survival of the team.

3. How do you rate the professionalism within the team? (1= lowest, 2= highest)

With only grades between 4 and 5 with an average of 4.20, it can be concluded that professionalism has not decreased in the past year.

4. Please explain.

Most of the same answers are given here as last year. A few answers that stand out:

- Always super-fast and friendly response, lots of knowledge of the options, neat follow up/nothing to let go.
- Team consists only of specialists and now work with multiple teams and always for the benefit of KPN.
- Results oriented, ownership.
- Structured way of working, equal discussions, good scans and companies
- Preparation and guidance are very good
- Professionalism greatly increased, from a 2 until a year ago to a 4 now. Still have room for improvement though.

It remains interesting that a group of students who are halfway through their studies are already described as professional and specialist, as it doesn't always feel that way myself. Nevertheless, positive for the team.

5. What are the benefits to you of working with the Liaison Management Team?

Among the answers were:

- A big network with smart people
- The team empowers and inspires to come up with different solutions for problems we encounter
- The knowledge of the market, but also the passion of the people in the team
- Someone who scans for new parties, thinks out of the box
- outside-in view, sees companies that I do not encounter with my somewhat internal perspective, ideas, innovations
- Exploration of parties in the market and organizing speed-dates, meetings, etc.
- We have a special collaboration. We both bring and bring knowledge to reach the right insights, be it for KPN Security or for Liaison Team.
- Keeping up with the innovations in the world

About the same kind of answers as for question 2 are given. Focus remains on knowledge and ideas and not on making impact through deals mat start-ups/scale-ups.

6. How responsible are you for innovation within your team? (1= not responsible, 5= only responsible)

Among the 10 completers, there were 2 who indicated they were solely responsible for innovation and thus gave a 5, 7 who have a major innovation role within a team and gave a 4, and one who plays a role in the process and gave a 3.

7. How important do you think innovations are within your department? (1= not important, 5= very important)

As expected, but still a nice confirmation 90% find innovation very important and gave it a 5 and 10% found it slightly less important with a 4.

8. How do you think KPN handles innovations? What could KPN do to help you even more?

The responses revealed that the focus of the KPN employees are not the same as the pre-set focus of the KPN management. The opinion is that innovation is not in the DNA of most KPN employees and it would be desirable if the innovations that are proposed, whether it is the LMT or another team/colleague this is embraced by the rest of the company. In addition, there is too much discussion by all kinds of people who have an opinion about it and compromises are made too often which ultimately results in innovation being too slow and limited. KPN also focuses too much on larger partners where there is little room for small innovative companies that are quite broad. Finally, it was mentioned that the focus is too much on the core business and technically driven innovation and that KPN lags behind when it comes to rationalism.

I would like to highlight one last answer and that was the answer "As a large company" and behind the answer was a smiley face. I certainly agree with this. In order to get something done faster, responsibility should be divided among team leaders who run their departments like start-ups. The power to make decisions is well distributed within KPN and so it should not be difficult to get something done. This is clearly not the case yet and KPN still treats innovations as if a large company would.

9. The Liaison Management Team helps me to innovate through start-ups and scale-ups. (1= totally disagree, 5= totally agree)

Despite saying in the previous questions that the LMT mainly helps with inspiring and coming up with ideas 60% gave a 4 and even 40% a 5. Or in other words, everyone who responded indicated that they have been helped with innovations through collaborations with start-ups/scale-ups, but is clearly not the most important thing we do for them or the collaborations do not produce the desired results. That would be a good question for a follow-up survey to go into a little more depth rather than this general question.

10. The Liaison Management Team gives me more time for other priorities. (1= don't agree, 5= totally agree)

I was particularly curious about this question in order to find out whether BO's see us as someone to whom they can hand over their responsibility for innovation and do something else or whether they see us as supporting the process. Despite the fact that the manager of the team sees the role of us as unburdening, I believe that this does not imply that we are handed over the responsibility and that we should see how we can follow up on the wishes of the BO.

In response to this question, 30% indicated that the LMT does not really give them more time for other priorities, 40% gave a 4 and 30% indicated that they completely agree and therefore have more time for other things. Ideally you would like to hear that this doesn't give them up to a little more time for other priorities because the role of the commissioning BO still takes up a lot of time in the process, so there shouldn't be that much time to spare. It does depend on what exactly they spend their time on for innovation. If they spend a lot of time scouting companies and are not good at it, we can efficiently save a lot of time for them. The saving of time during the process up to implementation is less because the role of BO still requires many steps to be taken and he/she is needed at many meetings.

11. What do you experience as the biggest obstacle(s) while working with the Liaison Management Team?

During the cooperation with the LMT, the greatest obstacle was seen as being able to get other people on board and to use tools more broadly when this made sense as a KPN-wide issue. Moreover, other

stakeholders are agents improvements and put their own stakes on top. The rest of the comments were related to the team itself, such as that the interaction within the team is sometimes a bit uneasy when someone leaves, the question does not always fit in with the scan, the innovations often remain limited to small add-ons.

Furthermore, it was mentioned that the biggest obstacle is his/her own agenda and the other priorities. In addition, he/she is not helped with innovative ideas that no one knows about yet. So there could still be profit there. The last thing to mention is that there are also 2 BO's who have no obstacles during the cooperation.

From the Liaison management, we have to take seriously the comment about the lesser connection of the scouted parties to the search demand. This is precisely one of the things the team differentiates itself in and so it needs to improve quickly. No plan needs to be made for this and it is easy to improve.

The hardest thing I can agree with is getting other people on board for implementing the same tool. Because they themselves do not have the demand for such a tool, it often determines their attitude towards being open to innovations. There is still room for improvement within KPN. I have noticed that people often point out that it is not really necessary because the direct problem is not there or because the added value is limited. Another case that I experienced was that a BO held it all off a bit and eventually indicated that he didn't had the time for it while it would hardly take any time if he helped me. Precisely by not helping me it is already taking longer than necessary to get a deal done. Consequently, frustrations from both parties are experienced.

For delivering innovations for not getting a search query is trickier, for that you need to be well aware of what is going on in each department and what is happening in the market. I think we already keep a pretty good eye on the market by reading newsletters about new start-ups and keeping an eye on social media, but there is still more to be gained here.

12. How could we make even faster steps?

Through this question I try to find out what during the process does not go smoothly enough or where there is still room for improvement. It emerged that the LMT should become more part of the organization and that the solutions should end up less non-committal. Something I fully agree with. Too often, a search request is submitted just to see if there is something there, with the result that there is no response to the submission of the parties or that the BO ultimately chooses to create the solution himself. Finding the right start-ups that match the search query and working them out takes a lot of time because we put everything into our CRM system and we do this extensively. If that ends up being for nothing that is an incredible waste.

An interesting addition mentioned is to take on fewer projects and deliver more focus and present a great business case. I think this is possible if the team is convinced that the parties provided from the search query are being considered and follow up steps are being taken. Too often, a lot of time is spent on a project that doesn't result in anything, which leads to a preference for quantity over quality.

An interesting option is to set up a process together to test products and services without obstacles from the organization in order to get customer validation without them. The interesting thing is that there are already field labs like this and they are being used. This is not possible for every solution and when I look at my own solutions that are in play now they are very specific and environments have to be replicated closely. This is an interesting solution that is used to a limited extent and, in my opinion, cannot be exploited even more.

What was a good addition, which I myself had already thought of and discussed with BO's, is to connect the LMT more with the entire team of the BO. In this way, an employee of the LMT can understand what's going on in a freer role and can think along more creatively.

Finally, the need for enough mandate and budget to procure something that can be used broadly by KPN is mentioned. The scarcity of personnel and budget had already been identified as possible constraints to taking innovative steps and this confirms it again.

13. What do you think about the number of contact moments with the Liaison Management Team? (1= too few, 5= too many)

Lately the Liaison has reduced the number of contact moments with BO's based on the amount of potential and the number of issues. The reason for this was that at most meetings the manager also had to be present and he was getting more and more busy lately. In my opinion, the number of contact moments is too limited, which means that fewer opportunities can be found. To this end, the question was set up to find out what the BO's felt about this. If a one-sided answer would come from this, we could do something with it. The result was that most (70%) thought it was just enough, 10% thought it was just too little and 20% thought it was just too much. It is good to see that the majority is satisfied with the number of contact moments and that this does not have to be a limitation for responding to questions.

14. What is the ratio of time spent working with Liaison Management Team to what it yields? (1=bad, 5=good)

This question best captures an overall picture of how meaningful the collaboration with the LMT is. Of those asked, 80% indicated that they are satisfied with the ratio of time to what it provides (4) and 20% are very satisfied (5). Or in other words, all the people who filled it out find it very worthwhile to work with us.

15. Do you have any interesting insights or other comments that I could include in my report or in general?

Since this was not a mandatory question to fill out, not everyone filled it out. The majority of the answers contained compliments for the professionalism and the good questioning and that the LMT is top notch to work with.

As a possible improvements it was mentioned that putting trainees a part of the time in an improvement meeting of the department it wants to innovate could create more opportunities. One of the benefits would be that the intern would know much more about what is going on and what they are doing. In addition, the intern can already provide input in the same way that makes the LMT so good. By just thinking in a different and fresher way we can add a lot to these types of conversations. At most meetings, the interns do have a fixed role. On the one hand, they have to take notes and pay close attention and, if necessary, ask follow-up questions. Being present in such a conversation in a freer role would be good for creativity as part of slack.

In the five why's, I was already wondering about the impact of different budgets. The reason for asking this would not be in favor of an outcome that, in my supervisor's words, could contribute to my research question. Nevertheless, it was indicated that there is still too little budget besides the budget for necessary renewals. It is clear that if it is really necessary there is a budget, also indicated earlier by my manager. Maybe we should make it clearer that the innovation is really needed and put more emphasis on that.

9 Conclusion

First of all before concluding the research question: *How can the Liaison Management Team make more impact in the collaboration with KPN and start-ups/scale-ups?* by what all needs to change and improve in KPN as well as in the LMT to make more impact by innovations with start-ups. Some things are going well and need to be contained. It is as important to list them as well:

- ✓ All the people with whom the LMT talks think innovation is important and are in a position to think with or influence it. The LMT therefore talks to the right people within KPN.
- ✓ The LMT is still considered an enthusiastic and results-oriented team with a professional attitude.
- ✓ Knowledge spillover is being used in the most optimal way.

The research question is answered by considering the three sub questions. The answers to these questions need to change in order to more impact for KPN as well as for the LMT. In order to tackle this problem some of the things that need to change are company broad and others are possible to be done by the LMT.

- KPN needs to be back as one of the early majority adapters of innovations.
- KPN employees need to be convinced even more that innovation is really important. KPN thinks innovation is important so this needs to be reflected more in the policy.
- There are too many opinions that need to be taken into account. In many places permission still needs to be sought from higher up and this can be made difficult by very critical thinking people. A more decentralized business could help even more.
- BO's need to see the LMT not as something that is going to give them more time for other things but as focused help in finding and guiding the process of innovations with start-ups.
- The LMT needs to be seen more as part of KPN. Because the team consists mainly of interns it does not get the attention and focus it needs to make more impact.
- There is too much non-committal help from the LMT to BO's which causes BO's to see the LMT as a nice addition for fun ideas and inspiration.
- BO's need to be kept more informed of what is going on and how the deal is going.
- BO's must be helped better by directly supplying the right scouted parties. There is too little connection of scouted parties to the search question.

In the recommendations section the strategy is mentioned how to implement these solutions.

10 Recommendations

Professionalism within the LMT

The first recommendation will be about the functioning and arrangement of the team. There are still gains to be made in the composition and acquisition of projects. Despite the fact that professionalism is praised by BO's, they also indicate that parties are still often shared that do not have a connection with the search question. Solution to this problem is more collaboration with the BO and with the LMT among themselves. The LMT can exude more professionalism by taking on important projects together. This will allow for better handovers and better matching start-ups to be proposed. In addition, there should also be more cooperation with the BO. During the introduction of the new intern, the BO should tell about the required knowledge. This should be tested. An intern with not the right knowledge cannot participate with the BO during interviews. Unfortunately, I have to confirm this about myself. With the right knowledge, I could have done more. The LMT will also have to use an introduction platform where HG tests can be made.

Creative destruction

As described earlier, KPN's structure is too mechanical to really ensure that KPN can stay on top of innovation as described in KPN's mission statement on innovation. It is therefore important to be able to ensure that innovations continue to follow each other in rapid succession so that KPN can keep up with the competition. This is called creative destruction and was coined by Joseph Schumpeter in 1934 who described it as the destruction of current thought processes to arrive at new products or services. (Lassen & Nielsen, 2009) In order for this to happen within KPN, the LMT would need to ensure that the BO tells which current processes are already outdated and in need of replacement. It is expected that the BO's are not all aware of this what is and what is not within KPN. This is important knowledge that can also be of added value to the LMT. By being more aware of what is out there, we can help KPN even better. As an example, as an intern I know far too little about what is available at call centers. In my internship period, I still too often presented a party with a function that KPN already has. This is to the detriment of the credibility and purposefulness of the LMT. Therefore, the suggestion is to create more overview of what is everywhere, when it was implemented and who is responsible for it. First, the LMT could start by describing all the deals that have ever been made and are still used within KPN. Then an assessment should be made of the extent to which this technology, platform or solution is still helping KPN or is in need of replacement. This will allow even more opportunities to make an impact within KPN to be identified by the LMT.

Transparency

The recommendation presented above would help improve transparency for the LMT. The LMT itself could also improve in transparency. Where we used to keep track of the status of current deals online for the team itself, we now have an overview of everything that is currently going on at the LMT since a few months. I put this document together myself and it is used monthly to discuss progress within the LMT and it is also presented to the person responsible for strategy at KPN. Both deals made this year and the status of current discussions as well as open search questions are included.

Yet the LMT could also become more transparent. Currently we share a monthly newsletter with all the events the manager and/or the LMT are going to that month. We could do the same with new assignments and problems that the LMT will be working on. This way we know even more about what we are doing, what we can do and what is going on.

Collaboration with the business owner

The most of the time that is lost is mostly on side of KPN, except when a start-up needs to alter a product. The process from idee to implementation can be shorter and more direct when the business owner is working more directly with the LMT. A way to do this, which was also proposed by a business owner, is by putting the intern of the LMT more directly in connection with the team of the BO. This way the intern does know a lot more of what is happening and can propose innovative insights.

Currently, the LMT is already looking for more opportunities to talk to many BO's and stakeholders. Every month, the LMT has a stakeholder meeting on digital development for customers and falls under several HGs. In this meeting, the LMT talks about ongoing projects using a presentation prepared by the author. During this meeting, we look at which start-ups can be more connected to KPN wide. The BO's and stakeholders help us with the best people to contact for these things. This is where the LMT should try to make these meetings more popular since few people attend these meetings so far. Nevertheless, it is a good progress and the LMT should find and promote more such occasions on different issues.

Recently, the author of this report requested a meeting on call centers for insights on future developments. Lately I have been in contact with different departments that have their own call center department and there is a change to learn more from each other. Still, it was difficult to prepare for this meeting because I was not aware of what had already been implemented. In the end, there were some start-ups with fits and starts and other start-ups did not offer any innovation to KPN. Call centers is just one example where a good overview of the current repertoire could help tremendously.

11 Personal experience report

What was my role within the department?

Officially, my role within KPN is called innovation analyst. I am in contact with different people within KPN, the so-called BO's, and look for possible start-ups and scale-ups that can help KPN and the BO's department with a search question or to solve a problem. Within KPN, I help the following departments with innovations through scale-ups and start-ups: mechanics, Fixed Access Network (FAN) Internet of Things (IoT) and call centers. An important part of the work involves scouting and scanning promising innovation companies. When scouting, I use the knowledge I have gained from subjects such as entrepreneurship to qualify companies for success. When scanning a promising business, I try to list all products and/or services the company offers, use cases, interesting customers and fit with KPN in a general way. I then send this scan of the party as an interesting lead in an e-mail to the BO or present it during a meeting with a BO. It is important that I can demonstrate in a convincing manner that this business can be of added value to KPN. Should the BO be enthusiastic I will be the one to look for a contact person to schedule the first call with.

So, in addition to our team looking for many parties to collaborate with, we also organize many events where start-ups/scale-ups and partners of KPN come together to talk about possible collaborations. This is where I was able to contribute directly and organize my first event. During the end of the internship, I am also preparing the next event that I am organizing (at the moment) on my own from KPN.

Why this internship and what is the connection with the SMB program?

For me, the business part of my master's was something totally new and I liked the courses that dealt with innovation and entrepreneurship the most. I really wanted to do something with this. In addition, if I were to work for a small company or start one myself later on, I thought it would be good to approach business from the perspective of a large corporate. What also seemed interesting to me is how exactly a corporate makes decisions and everything that has been thought up has ever come about in this way, as I am going to do. Moreover, at a large company as KPN a lot of things are possible and money shouldn't be a limitation. This would help me to really make impact instead of just identifying opportunities.

Therefore, I didn't mind that this internship has nothing to do with chemistry. The experiences I gain on this internship I won't get on many other internships. Besides, I don't know yet exactly what I would like to do and this internship also gives me the chance to look at something completely different than a chemical company.

Was I completely qualified for this role?

In a way, you are always qualified for this work when you have a lot of enthusiasm, are eager to learn and curious about how things work. I did have to learn a lot in the first few months to really add value to the team. It was mainly about soft skills that I did not learn during my bachelor chemistry, such as communicating during meetings, making agendas and taking notes during meetings.

In addition, I found out about certain things I was doing that I didn't realize I was doing. First of all, I continue to find it difficult to ask for help with things I don't understand well. Ideally, I'd like to understand it myself without someone else like I learned in chemistry, but that's not always possible. Also, people always want to help you, so especially asking people for help. Second, I continue to find it confronting that I don't always understand what people are asking of me. At first it was a matter of actually listening during meetings, but after that it was more a matter of understanding the person

asking something of me. Now it is a matter of first thinking about what is being asked of me without immediately wanting to give an answer. Thirdly I keep finding it difficult during team meetings, which you don't prepare, to tell my thought pattern in a logical and orderly way so that the other person understands exactly which process I followed and what came out of it. It is sometimes a disjointed whole. Finally, I often use superlatives in sentences, such as this was a great meeting while it was not very special. In the long run people won't take me seriously anymore.

What made me a great fit for this internship is that I can quickly understand and apply new concepts. In addition, I can perform well under pressure and am not afraid to fail or try something new. Often you have many things that you need to finish in a day and so you have to work hard. That is definitely up to me. Every day I worked at the Rotterdam office I was on time and worked hard to finish everything for that day. I'm also very punctual and that worked out well with all the appointments that day. It helps to create and maintain an overview. The last qualities that helped me a lot are that I'm open to feedback and I'm not afraid to show initiative and to take the lead within the team.

What did you expect/want to learn from the internship?

My expectations matched pretty well with what I ended up doing within the LMT. What disappointed me was that I had expected the LMT to have a more important role within KPN and that in this way more priority could be given to us. Some BO's still see us as an extra, while at first, I thought we were talking on the same level. Ultimately, it remains a team of interns and it will continue to have that image. I also expected to be more involved in the actual innovation. The work also includes a lot of chores and administrative work. That is not always fun or meaningful work. The chores consist of keeping our social media up to date and answering emails but the administrative work does contribute to making an impact but also takes up a lot of time. In this way, the work is nice and diverse, but not always as meaningful.

I wanted to learn what it's like to be part of a big company like KPN and really challenge myself in it to take a leading and prominent role. Part of that was something I really had to learn. Taking responsibility in the preparation and during important meetings was still new to me. I had one very important meeting with prominent people from KPN and two energy suppliers. I was expected to take the lead and let things run smoothly, but this was not always easy because I was nervous and the project was still fairly new to me and I had not yet mastered the knowledge required. As a result, I made some mistakes during the meeting from which I certainly learned and thus this was a valuable experience for me. On the whole, I mainly wanted to learn to become more professional.

What did I learn?

I learned what it is like to function in a team for a long time and to help each other in personal growth and searching together for possible solutions to problems. The close cooperation of the team and manager made this possible in a good and effective way. On the same day that you ran into something, you could already be helped how to do it better and apply this immediately. That was incredibly nice.

My soft skills have also received a good refresher course. During my master's I already learned new skills for working together within a business and for presenting yourself and your work. During my internship, this was asked of me even more and I was really able to switch the button to be able to deliver even more. This resulted in a more active attitude during meetings which allowed me to give my opinion on topics, which often led to new insights. By also taking more time to explain thought processes and intermediate steps, I can now convince people even more of my good ideas, which will certainly come in handy later on.

What was particularly eye-opening for me was that everything KPN implements or does goes through a long process of different steps. You tend to forget that. Many processes are also extremely complex and someone had to think up and create them.

Before I did my internship at KPN, I hadn't organized an event. Of course, I had organized something small for my student union or friends before but this was much bigger and more complex. Organizing events at KPN involves a lot of planning, preparation and communication to partners and attendees. A very nice addition to my skills.

What was my biggest challenge?

My biggest challenge was doing it in the way that best suited my manager. Often, I had a slightly different idea about something and therefore did not do it exactly how my manager would like or the communication was not adequate. An example of this was that every change I would make in organizing an event would go past my manager. At one point, I was so busy and doing many things at once that I forgot to do this. In the end, the work was done quickly and everything had gone well, but still my manager was angry with me for not doing what she asked of me. In the end, we spent a day going over everything I had done but did not encounter any errors or problems. I understand the frustration my manager had about me not keeping appointments but the result was the same. So, in the end the biggest challenge is not getting the job done but doing it in such a way that everyone is happy with it. That ultimately makes for good cooperation and healthy collegiality.

How did the internship contribute to your professional development?

As mentioned earlier in the reflection, this internship contributed to the overall picture of my professionalism. This was due to the intensive supervision and cooperation between the colleagues of the LMT and the manager of the team. This has led to improvement of my attitude in meetings and communication has become more optimal and professional. In addition, the internship has provided me with a lot of experience in the collaboration between corporates and start-ups/scale-ups. I no longer know from what perspectives I can approach the business.

What did I do well and what would I do differently if you had to do the project again?

What I am personally proud of is that I was able to make a real impact within KPN by helping people get in touch with the right people. By thinking up possibilities and ideas myself that would benefit KPN, I found opportunities for KPN. Not every idea was equally good but I was able to develop a number of them in such a way that the BO was enthusiastic. So, scouting out the right parties often went well.

In principle, I would not really do anything differently if I were to do this internship again. The mistakes I made led to new insights about myself and I learned from them. I should have learned a little earlier to communicate more clearly about if I needed help or if I didn't do something I was supposed to do, that was something I should have learned from sooner.

The only thing I would really do differently is start finding the research questions earlier and talk to stakeholders about them earlier. This would have helped me make more impact in my report and for the LMT in general. I lost track of deadlines, something that has not happened to me before.

How did the internship relate to the courses in the FBE program and was there a link with the internship done in the first year of the SBM master?

All subjects of the FBE program came back in a certain sense during the internship, some more than others. Innovation and entrepreneurship were particularly useful, but marketing and international business were also useful.

The direct link with the internship in my first year of my master was missing, but that is only logical. I did my thesis at a research group at the University of Utrecht on catalysts. Once in a while we had a group meeting where you published your results and discussed their relevance. For the rest it was mainly research that I did myself and that required fewer soft skills. The environment there required fewer soft skills because everyone was focused on hard skills.

What are the implications for a first job? What would I do differently in your first job?

The implications for the first job are that I will not be able to work for a competitor of KPN for the next few years. On a serious note, the experience I gained is definitely going to come in handy at my first job. I now know much better what I am good at, what I want and what I am less good at. I don't need to make the mistakes I made here again.

What I could have done differently before starting my new job is to read up even better on the knowledge needed to talk on the same level as the BO's. This is something I could have taken even more time to do and I would have been of value more quickly. For the rest, I showed a lot of commitment and I really went for it, something I will definitely do at my first job. I also want to keep making mistakes and remain open to criticism in order to learn from it. Hopefully I will get the space for that at my next job and I can show that I like to grow and become even better at what I do. So that eventually I can take on a leadership role myself and I can help people who have to go through the same process.

I can highly recommend this internship to anyone with somewhat overlapping interests. It has provided me with more than I expected to.

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