

Thesis Business Internship: A digital information management transformation at Eurofins Scientific

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Summary

Eurofins Scientific is a publicly traded international company active in the life sciences sector. Eurofins is the market leader in several segments across the globe, segments such as: food, environmental, pharmaceutical and agrosience testing. With the fierce competition in the field of life sciences, keeping up with competition or even staying ahead is crucial to keep a dominant seat in the life sciences. One of the many ways companies can stay ahead of competition is through automation and digitalization of processes. The main goals of automation or digitalization are improving communication and efficiency in a company. In addition, digital systems can offer security to companies. Currently, Eurofins BioPharma Product Testing is using an outdated system to store and process contracts between Eurofins and its customers. Therefore, I was hired as an intern at Eurofins Netherlands to introduce, implement and educate staff about the Document Management System (DM). The DM is an online software build into eLIMS, the main system Eurofins uses, where contracts can be stored and retrieved from. This will improve the efficiency of work and improve the security of document management. During the project, the DM was introduced and implemented. In addition, staff was educated about the use of the DM and the targeted amount of documents to be processed was achieved. Also, as an intern I was partly responsible for LabAccess and general tasks of business management. LabAccess is a tool used by Eurofins to provide customers with information about their tests/products and quotations. In the future Eurofins wants to use LabAccess as a tool where customers can request routine testing. During my time at Eurofins the total amount of LabAccess users was increased with over 31%. Next to this, over 650 contracts were processed into the DM. This internship was a great first step as a master student to work at a large international company, combination of social, business and science skills needed to work efficient, organized and deliver a completed project within the time set by management.

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1. Company and market analysis

1.1. A brief history of Eurofins Scientific

Eurofins Scientific is a publicly traded international company active in the life sciences sector. The company was founded in 1987 by Gilles Martin (*Eurofins, 2021*). Initially, Eurofins bought an analytical method (SNIF-NMR) from the University of Nantes which could verify the origin and purity of different types of food and drinks, which is also the first but most definitely not the last test they will add to their portfolio. In the early years till 1997 Eurofins mainly made its money off the SNIF-NMR method, which was used by a wide range of customers (*Eurofins, 2021*). As the company experienced a steady growth of profits and revenue, Eurofins sought to expand further. The main strategy between 1997 and 2008 was expanding to more European countries by opening new or buying existing Business Units. In addition to this, Eurofins also expanded their portfolio of tests. To name a few, Eurofins was the first company who could determine BSE (mad cow disease) genetic imprints in meat, thereby protecting the health of the general population (*Eurofins, 2020*). Also, Eurofins was the first to internationally test for H5N1 bird flu in food and DNA tests for undefined meat sources in the horsemeat crisis in 2013 to determine the origin of the meat (*Eurofins, 2020*). In 2012, Eurofins Scientific reached a major milestone: generating a revenue of over one billion. In the same period up to 2015 Eurofins became the market leader in several sectors, really putting their footprint on the life sciences market. With the increasing availability of capital within the company Eurofins switched to a more aggressive expansion strategy. In 2017 and 2018 combined Eurofins acquired over 110 acquisitions of different labs sites and companies to further strengthen their footprint (*Eurofins, 2021*) (*Eurofins, 2022*). As of today, Eurofins believes it's the market leader in several segments across the globe, segments such as : food, environmental, pharmaceutical and agrosience testing. Because of the diverse testing capabilities within the life sciences across the globe, Eurofins is the real leader in testing for life (*Eurofins, 2021*).

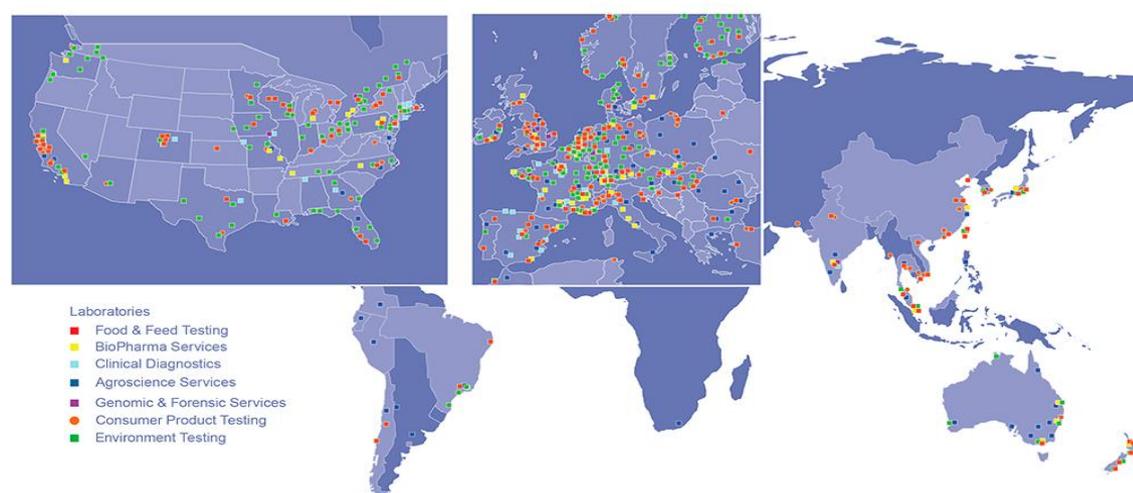


Figure 1: Overview of Eurofins diverse laboratories across the world and their different markets (*Eurofins, 2021*)

1.2. Introduction to Eurofins

Eurofins designs, develops, markets and sells analytical testing. Eurofins offers testing in multiple business areas. The main business areas are : food, environment, pharma, AgroSciences, genomics and clinical research. Combined in all these sectors, Eurofins its portfolio of tests has close to a quarter of a million analytical methods. As of today, Eurofins has over 58.000 active staff across the globe operating in 900 laboratories in 54 different countries. Across these 900 labs Eurofins has a portfolio of 200.000 different analytical tests and methods performed. The main testing goals of these analytical tests are safety, identity, composition, authenticity, origin and purity of biological substances and products, as well as for innovative clinical diagnostics. In general Eurofins has its business set up in regions with very little interaction between the different countries or continents, which is called a decentralized method of operation. However, this might vary depending on the regions, where Eurofins has an internal method of communication across, for instance, European sites, to do certain types of analysis other sites do not have access to. Eurofins calls this synergies between the independent sites. These synergies between the different sites is one of Eurofins its most sustainable competitive advantages. Like stated before, Eurofins consists of different business areas or key segments which all have a specific type analytical tests. The four main business areas will be elaborated more in the next part, namely: Biopharmaceutical services, Food and Feed testing, Clinical Diagnostics and Environment Testing (Eurofins, 2021).

Biopharmaceutical Services

Biopharmaceutical services are a collection of analytical methods based on compound discovery, genomics, helping in early development of research and general biomedical tests.

Genomics covers a large portfolio of DNA and RNA testing such as sequencing, synthesis, replication, gene expression and many more analyses. Genomics is mainly used by researchers to make innovative leaps in design of new therapies or medicine.

Compound discovery its main focus is on drug discovery through in vitro and vivo testing. In addition to this screening, profiling and assays of different compounds are also in the portfolio. Eurofins currently is the leader in this industry and have been doing tests for over 40 years in drug development.

Bioanalytical services has been the main selling point for Eurofins for the longest time. They are currently the global leader in the total library of tests and tests done for customers. Some examples are : biomarker assays, toxicity tests, sample analysis for multiple properties and preclinical-till phase 3 development of testing (*Eurofins, 2021*) (*Eurofins, 2020*).

Food and Feed Testing

Eurofins is currently the global market leader regarding food and feed testing, it is also the biggest part of the total pool of tests (over 200 million tests in food and feed alone). The main goal of these tests are to test for safety, composition, authenticity, origin, traceability and purity. Food and feed testing is divided in 3 main categories: Testing services, Consulting and certification.

Testing services are mainly focused on analytical tests to determine safety, purity etc. In addition to this the testing services also contain tests which analyze genetic modified organisms (GMOs) and pathogens which can have positive and negative effects on food and feed.

Consulting is mainly done to advise customers. Large manufacturers or developers of food and feed have a high standard regarding safety and efficiency when transporting and storing food, Eurofins has to expertise to give advise and set up plans for these customers.

Environment Testing

Environment testing is a more recent part of Eurofins, with the ever increasing interest in reducing the global warming or pollution of the air we breathe, Eurofins tries to contribute. Eurofins helps industrial companies or laboratories with improving their approach regarding the environment. This is done by tests which test the water, soil, air and waste produced by the customer.

Water testing is done with multiple assays. These assays are mainly used to test water quality, for instance : legionella or PH. But also test mineral and microbial content of water.

Air testing is focused on pollution and indoor air quality. Companies are required to show a reduction of pollution and emission, Eurofins is licensed to test these emissions and write reports (*Eurofins, 2021*). Indoor air quality assays are mainly used for offices or skyscrapers, where air cannot always flow freely.

Soil Testing is a rather small area of Eurofins focused on concentrations of minerals in soil and compost. This is used to design optimal compost or soil for agriculture or cattle(*Eurofins, 2020*).

Clinical Diagnostics

Eurofins is very innovative on the go due to its decentralized structure (Verbeke, A 2013). A great example of clinical diagnostics in the last two years are the development and distribution of large scale SARS-Covid-19 antibody and PCR tests (Eurofins, 2021). The key in Eurofins its Clinical Diagnostics testing is the focus on humans. An example in this field is biological sample testing, such as measuring microbes in blood and feces. In addition to this, Eurofins can offer help to hospitals, where patients need the perfect match for their donor organs, this is called histocompatibility testing. Clinical diagnostics are also used in oncology. Personalized therapies are set up with state of the art technologies and analyses.

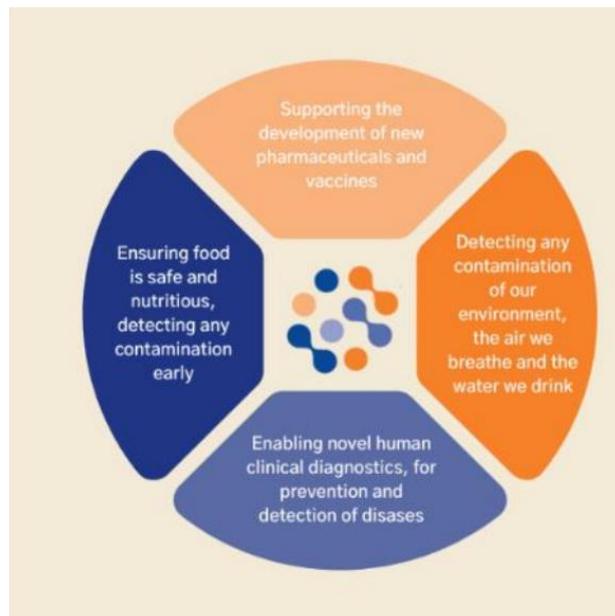


Figure 1: Eurofins its 4 main "Testing for Life" goals (Eurofins, 2020)

1.3. The business and innovation model

Eurofins Scientific is an important company for safety testing in human health and the environment. Eurofins is constantly trying to innovate and improve their testing and equipment. Their state of the art labs and large portfolio of tests remains at the front regarding progression and innovation. Eurofins aims to provide the best service and turn around time while keeping high quality. The highest quality and service is achieved by sharing information between the independent sites of Eurofins. Even though Eurofins functions mainly as a home based augmented and decentralized company, they share valuable information to their neighboring sites. The decentralized approach of Eurofins its innovation is meant to stimulate entrepreneurship at each individual site (*Verbeke, A 2013*). Since the initial public offering (IPO) of Eurofins in 1997 Eurofins continued to grow rapidly due to this entrepreneurial approach (*Eurofins, 2021*). But, now that Eurofins has reached a dominant place on the testing for life market it continues to stimulate entrepreneurship. It believes the decentralized structure of entrepreneur led companies promotes closer relationships with synergistic companies and its clients while at the same time stimulating constant innovation to stay ahead of competition.

Instead of a centralized group, where the portfolio remains the same across all laboratories, Eurofins adapts a smart system. This system motivates each individual lab group to be dynamic and market driven for its customers in each segment of business across the globe. However, when certain types of testing are not available in a segment Eurofins uses communication between groups to transfer information or even take over projects. This system makes sure lab groups can focus on their markets but have the opportunity to provide clients with testing from other labs they would normally not be able to provide.

Eurofins believes the best services and tests are only possible when the leaders of each entrepreneurial lab group can make their own decisions and adapt to their market segments. All lab groups are stimulated to pursue new opportunities and expand their portfolio of tests according to the market needs. For larger lab groups, higher management of Eurofins even stimulates innovation for specific operations which were not part of the package of testing Eurofins offers. This has two main goals, the first goal is expanding the total portfolio and secondly, showing customers Eurofins is flexible and can solve problems without need of external parties. This will bind current customers and attract new customers.

The decentralized entrepreneurial business and innovation approach of Eurofins is tied closely to their global network. This strengthens the relationships with customers by giving them access to an unrivalled experience and expertise of all Eurofins Business Units accompanied as the result of the innovative mode. Right now, across the globe Eurofins possesses over 700 laboratories across all continents. The large scale has the potential to create and maintain multiple competitive advantages, some examples are a large portfolio (differentiation), high innovation rate (differentiation), cost leadership, patents and

customer loyalty (Verbeke, 2013). Because Eurofins possesses a large part of the life sciences market they generate a huge economy of scale for Eurofins and the customers. These competitive advantages and the large economy of scale is reflected in the yearly increasing revenue and employee count as shown in figure 3 and 4 respectively. Over the last decade Eurofins has dominated the European and American market of life science testing. In recent years, Eurofins has shifted its attention to the Asian-pacific markets, with many opportunities to be found.

The main goal of this expansion to the Asian pacific region is to increase the volume of customers. Also, Eurofins wants to be able to provide high quality testing across the whole globe. With the emerging economies in the Asia pacific region, more attention will be given to general public health and the environment, which is the perfect target for Eurofins.

One of the strategies Eurofins adapts when emerging on new markets is aggressive acquisition of already existing Business Units. By simply integrating existing companies on new markets Eurofins can get its foothold and expand from there. If these strategies used by Eurofins will work long term can only be answered by time. However, looking at figure 3 and 4 it tells a promising story for Eurofins Scientific (Vaska et al., 2021)(Eurofins, 2021).

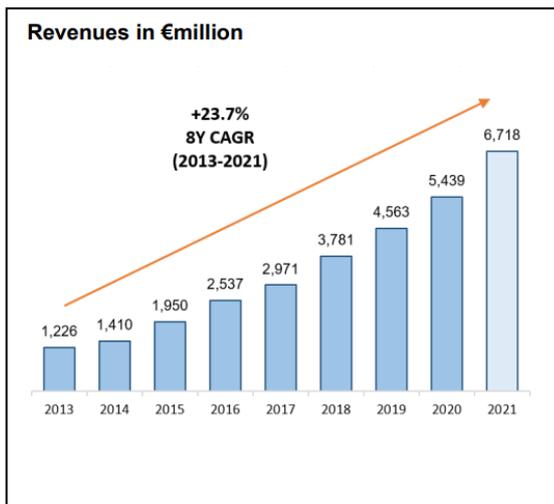


Figure 2 Revenue Eurofins in millions of euro's

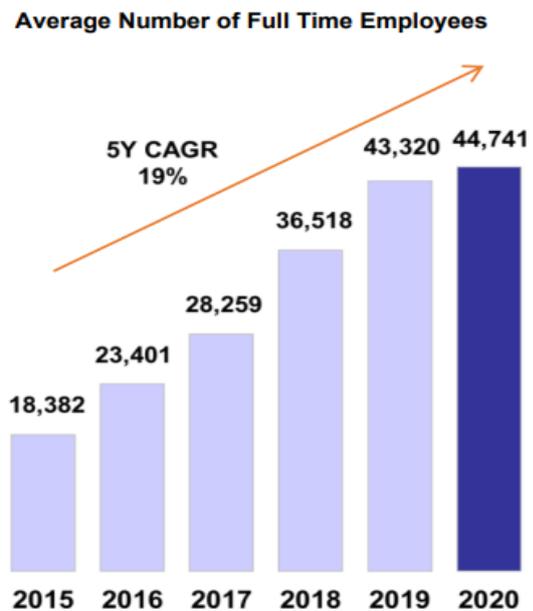


Figure 3 employee total Eurofins 2015-2020

1.4. The marketing environment

Eurofins Scientific operations are in a dynamic environment where it is influenced by multiple factors in both the micro and macro environment such as collective social trends, regulatory framework, technological innovation, politics, customer behavior and environmental factors. To determine Eurofins its macro-environment a PESTELE analysis was performed (*Professional Academy, 2020*). A description of the political, economic, social, technological, environmental, legal and ethical factors that come into play is given below. The PESTEL analysis of Eurofins Scientific is summarized in Figure 5 (*Yüksel et al., 2012*).

P	Political	<ul style="list-style-type: none"> • -Changes in political conditions • -Environmental goals enforced locally
E	Economic	<ul style="list-style-type: none"> • - Inflation • - Testing in life sciences is a saturated market
S	Social	<ul style="list-style-type: none"> • -Digitalization and globalization increases general awareness regarding health and quality of products or tests. • -More sophisticated attitude towards product quality
T	Technological	<ul style="list-style-type: none"> • -Rapid technological advances across all sciences • -Data security and protection of company
L	Legal	<ul style="list-style-type: none"> • -Customer protection laws across the world • -Changes in taxes • -Shifting laws in biology and chemistry
E	Environmental	<ul style="list-style-type: none"> • -Chemical and biological waste produced • -Extreme growth in environmental testing markets • -New problems occurring (cleaning air/water and soil with innovative solutions)

Figure 4: Pestel analysis (summarized) of Eurofins Scientific (Yüksel et al., 2012).

Whilst the political climate in the world is relatively stable and has favorable policies such as low capital interest and tax agreements, oversea political environments have become a topic of discussion due to the constant change. An example could be in Europe, where recently the Brexit happened.

Quite often sales are done between the different Eurofins sites across Europe, which would now require more paperwork or even special licenses and certificates before the trades can happen (*Eurofins, 2021*). Luckily, the main target markets for Eurofins are politically stable. Furthermore, Eurofins is going to benefit from the rapid increase in global free trade laws & policies and increase in quality of global infrastructure in testing for life.

Eurofins is quite resilient when it comes down to economical factors. Eurofins sells products in the internationally mostly in developed markets, making them less vulnerable to economic changes. Inflation will always be present in one way or the other. But because Eurofins buys and sells products they simply adapt their prices accordingly. Even though Eurofins is resistant to economic downturn, they might be more impacted by the rapid growth of upcoming developing markets. Not only will these markets provide more competition, but also production prices will increase because of fiercer competition in the countries Eurofins does not have a foot on ground yet.

The social macro-environmental has become increasingly relevant because of digitalization and the general awareness concerning health and quality. The social pressure the western world forces on their leaders regarding general health and environment creates great opportunity for a company like Eurofins (*Kraus et al., 2022*). Also, personal health goals of the population play a large role in the development of new products and testing Eurofins can offer. Some recent examples are the increase of supplement market outside of professional advise (eg: protein powders, vitamin B12, hydrating oils). A downside of the digitalization sophisticated attitude towards products, with the massive amounts of information available on the internet simple things like bad reviews can hurt the name of Eurofins and therefore they need to protect their products against “bad media”.

Technologically the life sciences industry might be on of the most rapidly advancing. Companies are repeatedly trying to reinvent the wheel, thus the technological macro-environment is highly pressurized and pressure for companies like Eurofins to keep up is high. Firms are investing heavily in their R&D department offering new products and testing. Eurofins is keeping up with products like in the recent pandemic, where Eurofins was a massive supplier of Covid-19 antigen testing and PRC testing. This all is obviously a big opportunity, and threat, for Eurofins, as they and the market will continuously shift towards smarter and more advanced products and testing. Though, due to these constant developments the market is seriously changing and it is important to keep innovating and keep up or stay ahead of the competition. Another important aspect of technology is security. Just three years ago one of the forensic sites of Eurofins experienced a malware attack. Eurofins had to pay a ransom to gain access to their data again. Attacks have been happening to multiple companies and these attacks will only get better and sophisticated. Protection against hackers is an important aspect for Eurofins to work on.

Undoubtedly, along the lines of the social macro-environmental effect, environmental elements are becoming more and more pressing on Life science companies. With climate change, environmental activism and increasing stakeholder pressure, the environmental macro-environment is, and has been of utmost importance. Countries are adopting greener legislation to combat climate change and company’s pollution. This change in mindset has two sides, where Eurofins can offer many solutions to help solve problems regarding the environment or health. But on the flip side laboratories can produce a lot of chemical and

biological waste, which are very taxing on the environment. However, as long as they keep up with the developing environmental legislation, they remain their corporate responsible positioning. Because of the increasing relevance, imminent environmental issues and stakeholder pressure, the environmental factor (with ethical factors) is something that Eurofins needs to consider to be and stay successful. The legal factor for Eurofins mainly considers the changing laws regarding laboratory testing. Because Eurofins covers almost every biological or chemical corner of science they have to be aware of the changing laws Regarding chemical waste, GMO testing and data protection of customers. Also environmental concerns and laws regarding the environment will pose challenges now and in the future.

1.5. Porter’s Five Forces (micro-environment/Industry)

The competitive environment of Eurofins, which is focused on the testing for life industry, is analyzed with Porter's Five Forces Model (*Porter, 2008*)(figure 6). Using a porter’s five forces gives us a better understanding of the competition compared to Eurofins Scientific. In addition, the buyers and suppliers are analyzed.

1.5.1. Rivalry Among Existing Competitors – High/unfavorable

Competition within the life sciences testing industry is intense. The life sciences testing industry has reached maturity, in which several large companies are in direct competition with Eurofins on a global level. A few major competitors are Charles River and ICON (*Owler, 2022*). While growth rates of the industry have increased due to the food and health being forever important, the industry has become somewhat saturated. In contrast, the current market is somewhat saturated, but because this industry is dynamic and constantly changing due to technology this saturated “state” of the market is being influenced by innovation. Therefore, these rivals are in competition for further market penetration by trying to take market share from each other with new and better

Figure 5: Porters 5 forces (*Porter, 2008*)



technological innovations. Nevertheless, Eurofins is the market leader when it comes to life sciences testing in multiple specializations, this shows in the constant growth of revenue, average revenue growth of 23% between 2015 and 2020 (pre-covid). In addition, Eurofins generates more revenue from food and feed testing than its competition, illustrating clearly its position as market leader in this segment. Thus, while competition is fierce, it does appear that Eurofins is able to stay ahead.

1.5.2. Bargaining power of suppliers - Low/favorable

The bargaining power of suppliers is low as Eurofins is a large multinational (*Professional Academy 2020*), making them attractive to work with for many suppliers. Eurofins its products and testing services are used in over 50 countries and make use of over 700 laboratories. This means Eurofins itself is not dependent on a few suppliers, which puts Eurofins in a controlling position. Costs for swapping are low for a company at Eurofins due to its sheer scale and there is a high presence of substituting suppliers as they do not offer exceedingly specialized products. However, certain services which are outsourced by Eurofins are scarce. This means that Eurofins can set its needs to which the suppliers should comply. If the supplier does not want to match the needs, Eurofins can simply switch to a different supplier.

1.5.3. Bargaining power of Buyers: Low-Moderate/Neutral

The bargaining power of buyers is moderate/low. Even though there is competition the buyers can switch to in the life sciences market, not every life science testing company offers the same portfolio of testing. One of the advantages for the buyers is no switching costs, which at the same time is a disadvantage for Eurofins. The loyalty of buyers is mainly decided by pricing and quality of the testing. Brand loyalty seems to have very little influence in the life sciences testing market. Simply said, Eurofins its brand image which customers perceive has played a lesser role in its growth and success. Most of its success at the buyers can be due to the differentiation and availability of the testing. Finally, buyers are quite price sensitive, which further increases bargaining power (Porter, 2008).

1.5.4. Threat of new entrants: Low-Moderate/Neutral

The threat of new entrants is low. Entering the life sciences testing market required a huge investment to battle with the giants at the front. Entrants to the market will find new innovative techniques which will be attractive to a small subset of buyers. However, the sheer scale of Eurofins and its major competitors is a blockade for entrants. Something

which is happening a lot right now is the acquisition of new innovative small companies. This way Eurofins is still able to sell the new innovative tests, without having to compete. All together, the barrier of entry is simply very large both in equipment and capital making a new entry to the market very unlikely.

1.5.5. Threat of substitutes: Low/Favorable

The threat of substitutes products and services for Eurofins is low or even non-existent. Across the globe in all countries with a stable economy, testing for health and environment is getting bigger. Because of the entrepreneurial strategy of Eurofins, combined with the aggressive acquisition strategy, Eurofins simply discovers the substitutes themselves or buys the patent rights of smaller companies with a new innovation. In general, the differentiation of products and services combined with the high innovation rate, Eurofins has a low threat of substitutes. In addition, Eurofins is not focusing solely on one market. If for some reason Eurofins loses their dominant position in one of their many markets due to substitutes they will still have many more markets on which Eurofins can flourish. In some way you could say the differentiation across many markets protects against a threat of substitutes on an economic level.

1.6. SWOT matrix analysis

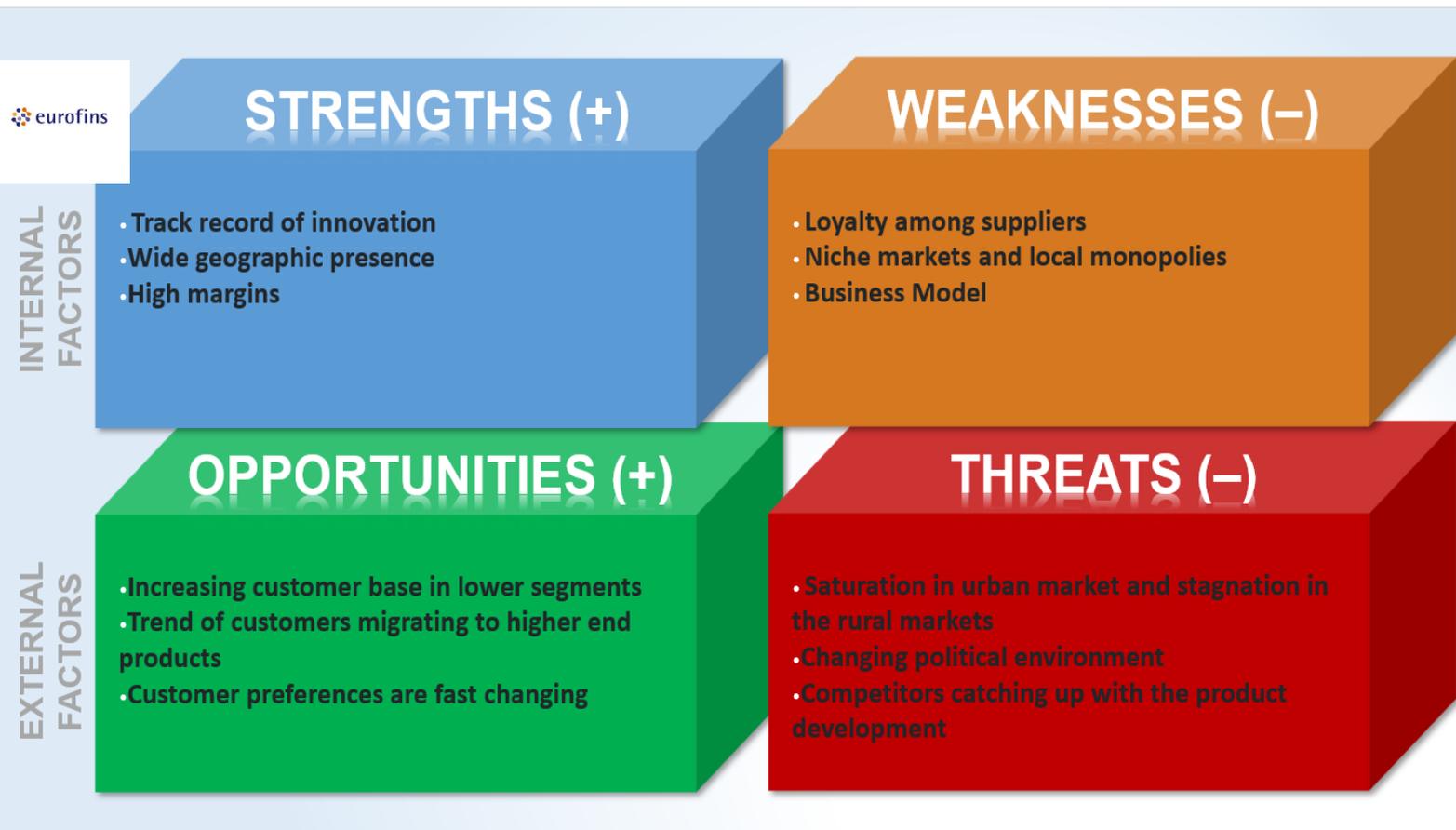


Figure 6: SWOT MATRIX EUROFINS

1.6.1 Strengths of Eurofins Scientific

Strengths of a company in a SWOT analysis describes their competitive advantages and the company its ability to compete against competition (Gürel et al., 2017).

-Eurofins Scientific has since its establishment in 1987 had a track record of innovation, starting from a single test has transitioned over the years to a portfolio of thousands of different tests as a result of high innovation rate.

-Eurofins has high margins on their products compared to the life sciences industry. In general margins are high in the life sciences industry, but according to (Embapro, 2020), Eurofins has exceptionally high margins on their products.

-Large geographic presence is another strength (S&P, 2020) of Eurofins Scientific. Eurofins has a large network of laboratories across the globe. This network is able to deliver all kinds of testing needed by customers by sharing information and expertise across the different laboratories.

1.6.2 Weaknesses of Eurofins Scientific

What describes Weaknesses in a SWOT.

Weaknesses of Eurofins are either the lack of strengths or disadvantages compared to the competition (Gürel et al., 2017).

- Supplier loyalty is high at Eurofins even though Eurofins is not loyal to their suppliers. Because Eurofins offers a wide array of tests they need multiple suppliers and are very price driven. However, the suppliers are loyal due to the high amount of business Eurofins can offer the suppliers.
- Niche markets and local monopolies are only temporary (Teoli et al., 2019). Only when new technologies are patented, Eurofins can exploit this monopoly. Existing tests or technology which is not patented anymore can be offered by competition.
- High cost of replacing existing experts is an issue Eurofins has to deal with. Due to the high expertise needed to run a testing lab, the amount of employees available for these positions are slim. Replacing these experts is costly, therefore Eurofins is probably better off by simply not losing the experts by paying them well.
- Business Model of Eurofins Scientific can be easily imitated by the competitors in the life sciences industry. The main driver for this business model however is capital, a competitor would need a high capital to engage in such aggressive acquisition strategies. In addition, Eurofins its decentralized approach hurts at company level innovation. One of the key capabilities all the different lab groups need to have is communication. Communication mostly done via digital systems (Poppulo, 2021), however due to the decentralized approach not all lab groups adapt the new digital systems offered by higher management. This leads to weaker communication and less effective business (Pereira et al., 2022).
- As a result of decentralization, most Eurofins operating sites still use old systems and security. With as result a hacked Eurofins lab group in the United Kingdom (Security affairs, 2019).

1.6.3 Opportunities for Eurofins Scientific

What are the opportunities in a SWOT.

Opportunities are potentials a company still has. This can be with innovation, strategy, differentiation or even pricing (*Gürel et al., 2017*).

- Increasing customer base in lower segments. As customers do not have to be large pharma companies anymore but can be simple small scale companies or even individuals. Eurofins can focus on this customer base as well. By offering more specific testing for individuals regarding health-testing or environmental.
- Changes in customer preferences and goals. Due to the interest in the environment being larger in more rich counties, we see the amount of tests being offered increase as well. Eurofins can focus on changing with the customer, to increase their portfolio in environment testing.
- Lower inflation rate in the last years increases the amount customers can spend.
- Licensing and laws make it harder and harder for small firms to keep their head above the water in the life sciences sector. This increases the customer base for Eurofins.

1.6.4. Threats to Eurofins Scientific

What are the threats in a SWOT.

Threats are potential dangers to the company its business models because of changes in economic factors or changing customer needs and perception of the company (*Teoli et al., 2019*).

- Changing demographics can be a real threat but also an opportunity. The older generations are generally more brand loyal than the newer generations which are more experimental. Eurofins needs to find strategies to attract the newer generations. One way could be to put the emphasis more on environmental testing, which is something the newer generations value high.
- Shortage of experts. As described in the weaknesses, Eurofins has a high need of experts in the life sciences field. Eurofins needs to make sure they keep a steady flow of new experts and educate them. In addition, Eurofins needs to make sure their current experts do not leave the company for competition.
- Commoditization is a major threat to Eurofins. Long term customers are used to certain pricing and new customers will try to get the lowest pricing possible. Due to the ever increasing price of commodities Eurofins needs to find a smart strategy, where they do not lose to much of their profit margins but also keep the prices low enough to be attractive.
- Changing political environments can be a threat to Eurofins. Because Eurofins is active globally and wants all lab groups to work together, the trade war between US and Asia or

Brexit can have a huge impact on business. Recently, the war between Ukraine and Russia has had a huge impact on mainly the Russian and European economy, which is directly influencing Eurofins.

- Competitors are getting close to the same product development as Eurofins. Right now Eurofins is still the leader in innovation in the life sciences sector of biotechnology. However, the competition is creeping closer. Eurofins needs to keep pushing innovation to stay ahead in sectors where they are the market leader

Conclusion Company analysis on digitalization

Eurofins is the market leader in several segments across the globe, segments such as: food, environmental, pharmaceutical and agrosience testing. Competition within the life sciences testing industry is intense. The life sciences testing industry has reached maturity, in which several large companies are in direct competition with Eurofins on a global level. Eurofins uses a home based augmenting approach with a decentralized leadership structure. It believes the decentralized structure of entrepreneur led companies promotes closer relationships with synergistic companies and its clients while at the same time stimulating constant innovation to stay ahead of competition. This business strategy and structure has proven to be very effective for Eurofins. However, this business and innovation approach has its downsides. As a result of decentralization and entrepreneurial approach, most Eurofins operating sites still use old systems and security. In lesser cases, this simply reduces efficiency, worst case scenario an Eurofins site got hacked in the UK. This shows that one of the improvement points for Eurofins is the digitalization or renewal of its current digital systems for a safer and more efficient version of Eurofins.

2. Work at Eurofins BioPharma Product Testing Scientific Netherlands

First of all I would like to take some time to explain the structure of Eurofins in the EU. As described before the structure of Eurofins is decentralized. Where Eurofins sites from the different countries do work together but not in the way you might think. Instead of working together under one name, they can sell each other tests, which is called Interco in the company. They do give each other discounts to promote doing more business, but all the different sites have their own business and financial goals which they do not share with the sites abroad.

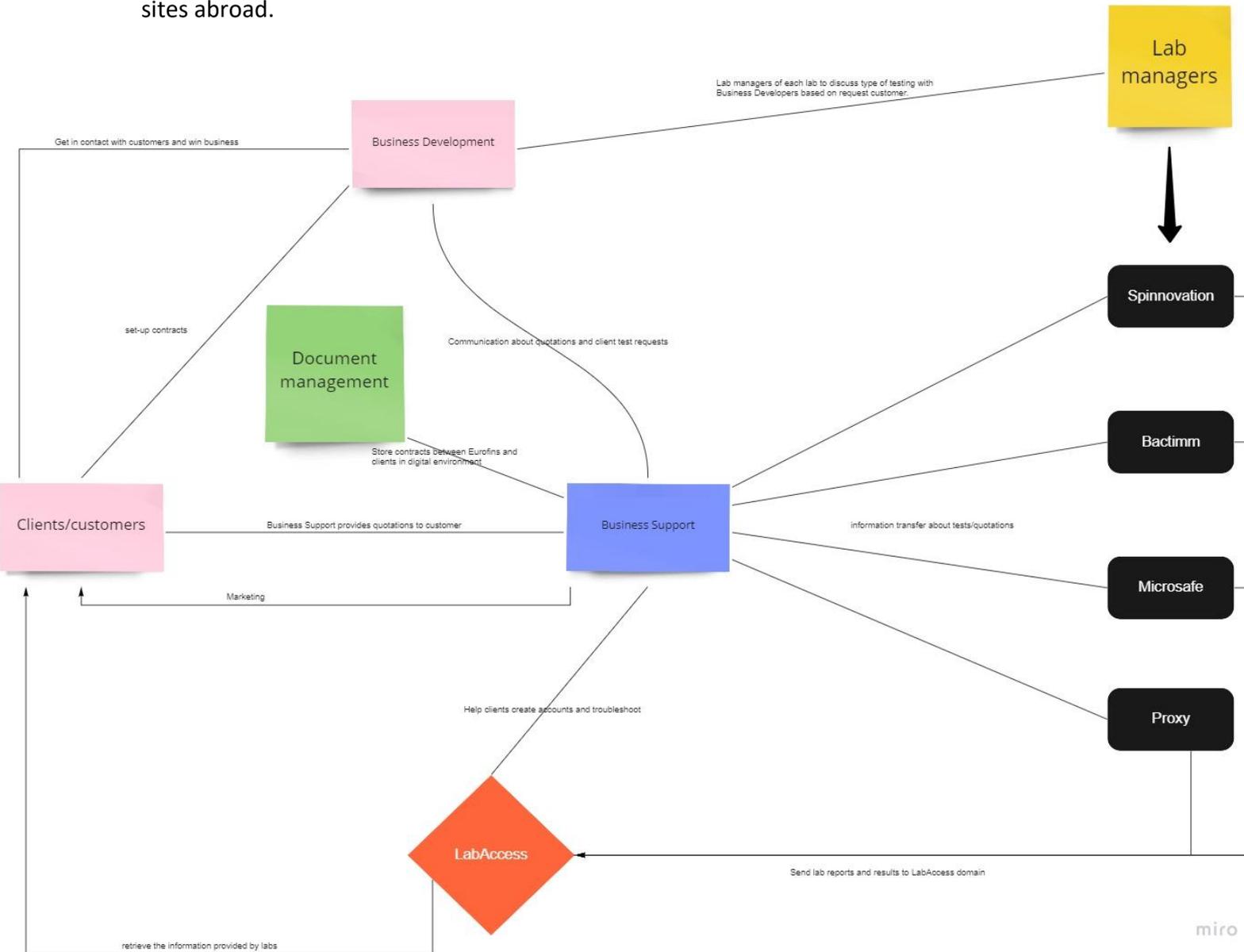


Figure 7. Overview of all the different organs in the structure of Eurofins Netherlands.

Now, I will take some time to explain the general structure of Eurofins BioPharma Product Testing NL when I arrived there, how the different organs of the company interacted and what responsibilities these organs have. Since Eurofins BioPharma Product Testing consists of 4 Business Units, which work together from a centralized control/support organ, which can be quite hard to understand from text alone, I made figure 7. At the left side of the figure we can see the clients. The clients request information/tests at the Business Developer Managers or at business support.

New clients are generally first in contact with the Business Developer Managers, who can explain the clients the types of tests available and what the turn around time would be. Business Developer Managers have close contact with the lab managers to discuss different types of testing. There are two “general” types of testing available. The two types of testing are studies and routine tests. Routine testing is rather simple and pre-set type of testing. Examples of this would be measuring PH, checking for contaminations or water testing for research. The second type of testing is studies. Studies are more complex than routine work as the name suggests. Studies have to be discussed with the lab managers to check if such a test or project could be done at the lab. For routine testing there are set prices which do not change. With studies the pricing is generally discussed with lab managers and Business Developer Managers.

Eurofins BioPharma Product Testing consists of 4 Business Units, namely : Spinnovation Analyticals, Eurofins Microsafe Laboratories BV, Eurofins Bactimm BV and Eurofins Microsafe Laboratories. Eurofins Bactimm BV is a microbiological contract laboratory with a focus on the pharmaceutical and medical device industry. In addition, Eurofins Bactimm BV provides microbiological testing services to the health care and cosmetics industry. Eurofins Microsafe Laboratories BV focusses on physical and chemical quality control testing of pharmaceutical raw materials to finished dosage forms, thereby covering release, stability and validation. Its Development, Validation and Stability department can develop test methods from scratch or based on client methods. Spinnovation Analyticals provides analytical needs in process and drug development, product characterization, manufacturing process optimization and troubleshooting. Lastly, Eurofins Microsafe Laboratories its core business consists of viral safety testing, bacterial and mammalian cell banking and cell characterization. Apart from performing compendial tests, client-based test methods can be implemented, or novel methods developed and validated.

The last major organ in Eurofins BioPharma Product Testing is Business Support. Business Support connects all the dots between the other parts of the company. Business Support is responsible for multiple tasks, to name a couple: development life cycle from Request for Proposal (RFP) through proposal preparation and submission to post-decision review, work together with business development to produce requests for customers, interact with clients to provide info/feedback management. The major system Eurofins BioPharma Product Testing works with is eLIMS (Eurofins laboratory information management system), eLIMS is a giant database with all client information which is used for most automated and

digital information transfer. However, almost all contact between customers and Eurofins BioPharma Product Testing is done through email with pdf or sharing folders, which amazed me. Eurofins is a leader in testing for life but still sends lab results to customers via pdf, a very outdated and unsafe way of sharing information between two companies. This paperback transfer of information is still used at many different organizations (*Hwang et al., 2013*).

On the 2nd of June 2019 Eurofins forensic site in the United Kingdom got hacked via ransomware, Eurofins had to pay ransom to gain access to their systems again. This shows Eurofins needs to improve their security, as we showed in the company analysis. However, Eurofins BioPharma Product Testing is in the process of implementing LabAccess. Currently, Eurofins Bactimm BV is already implementing this system. So, one business unit is using LabAccess already and three are yet to come.

Quite soon after joining the business team I was responsible for managing LabAccess together with a colleague. The main activities were assigning the customers to the proper Business Units (from where they will receive their results), troubleshooting (IT support) and helping Eurofins BioPharma Product Testing transfer all their customers from pdf email to LabAccess.

LabAccess is a tool used by Eurofins BioPharma Product Testing to provide customers with information about their tests/products and quotations. In the future Eurofins BioPharma Product Testing wants to use LabAccess as a tool where customers can request routine testing, but since LabAccess is still in its early phase this tool of LabAccess is not used yet.

During my internship at Eurofins BioPharma Product Testing as intern we had our own project we had to work on but also help the business support team with daily activities of the team. These activities include: supporting the business support team, providing quotations of customers, informing Business Developer Managers when needed, IT support for clients and customers, setting up seminars, website and many more. In the end this meant I spend around 50% of my time on the intern project and 50% on the other activities.

The last part which is important for my project is the Document Management module in eLMIS (DM). DM is a tool to store different types of contracts which is integrated into the eLMIS system that is used by Eurofins BioPharma Product Testing. The main contracts found in DM are:

- QAA (QTA/QA) Quality assurance agreements in all forms and types.
- MSA (SLA/SA) Service agreements in all forms and types.
- CDA (NDA/CA) Confidentiality agreements in all forms and types.

After giving a brief description of all the different organs in Eurofins BioPharma Product Testing I will now introduce my project as an intern at Eurofins BioPharma Product Testing.

As described earlier in the SWOT matrix or other parts in this thesis, digitalization of communication with customers or storage of information is something Eurofins can improve a lot. Back in November, Eurofins BioPharma Product Testing stored all of their contracts with clients (and all quotations) in one large folder with over a thousand of companies and probably close to 5-10 thousand contracts. This is not an efficient way of storing documents, right now the system was still working decently. However, scrolling through all the companies or the computer taking over a minute to find companies with ctrl-F is not a sustainable and efficient way to store documents. Therefore, Eurofins BioPharma Product Testing wanted a change of management system regarding these documents. To realize changing the current digital storage system used, Eurofins BioPharma Product Testing hired two interns (Youp van der Linden and Lindsay Mulder), both with a biomedical/business oriented education to try and tackle this problem.

At the start of the project we first had to think about how we wanted to implement a new system. Luckily for us, Eurofins was already using the DM system on other sites across the globe, but in Europe Netherlands and Belgium would be the first to adapt it. In November we were assigned to this digitalization project in the Netherlands.

So, now that we knew what system we were going to use we had to determine the scope of the project. Eurofins BioPharma Product Testing had active business with about 675 companies and inactive business (with active contracts) with over a 1000 extra companies. By rule of importance we started working on the active companies or “active list” first. At the start of the project we first had to find out what type of contracts and documents were present in the folders. In addition to this, we had to find an efficient way to keep track of all the findings. We decided to use an excel sheet where we could fill in the official company name, type of document, date of expiry, starting date, CRM code (official code for Eurofins system) and the date it was signed by all parties. All items named above were needed to upload the documents in the DM system. After we extracted all the information above from we contracts we were able to upload them all to the DM environment. We used a specific protocol which was set up together with our Belgium colleagues. For the protocol see Appendix 1. A realization was the fact we were mostly working on “backlog”, because those documents were all in the past. A new way of processing these contracts was needed to make sure no more backlog would be created and everyone knew what to do with them. To achieve this goal two main things needed to be arranged.

Firstly, education of all staff that works with contracts. By educating all the staff we could make sure that in the future contracts would be processed properly. A problem we encountered during the education of the staff members was gaining access to certain systems. Within Eurofins BioPharma Product Testing it is a rather slow process, which needs approval of different managers. Secondly, we created a second mailbox account where everyone that worked with contracts could send their contracts to. This way all new

contracts would be gathered up in a central mailbox, which makes it a lot easier to upload them to the DM system. By educating the staff and by setting up the mailbox we fixed the problem of contracts disappearing in large folders which was messy and inefficient. In addition to this, we could start on finishing the backlog of contracts. We knew all new contracts would end up in the mailbox, so after “cleaning up” the old folder with the old contracts, all that would needed to be taken care of was the mailbox on a daily basis. To measure the progress of the DM project, all contracts processed will be archived in an excel sheet. At the end of December (half way through the internship) and at the end of the internship a PowerPoint presentation is made to show current progression, future plans and goals achieved. These presentations can be found in the Appendix 2. An overview of the total process can be found in the results section. In addition the PowerPoint used to educate staff about DM is found there.

Another major part of my internship was working on LabAccess with Alexandro and Luisa. As explained earlier, LabAccess is a tool of communication with the clients. The clients can get access to the results of their tests, overviews of quotations and able to see their CAPs.

Across the globe Eurofins is trying to convert their clients from “mail & pdf” to LabAccess as a tool to communicate. The main reasons for this change are efficiency and safety. In addition to this, Eurofins can automate orders through LabAccess with existing clients. The main goal of the LabAccess project, which was already ongoing when I arrived at Eurofins BioPharma Product Testing is to increase the % of LabAccess users across all Business Units. To make the difference measurable, Data will be extracted from eLIMS and visualized into graphs or tables showing the percentage change for each lab site. Additionally a graph can be created to show the accumulative accounts during this year. To achieve progression, Communication will be needed with Business Units to ask if they would like to transfer over to LabAccess. Once agreements reached, emails will be sent to all relevant and registered clients requesting for creating LabAccess accounts. This will be done in bulk sending batches per Lab site. Activation of accounts will be done by Business Support, through the requests received from clients. LabAccess will become the main route through which Eurofins BioPharma Product Testing will be able to communicate CoA, invoices and documents to clients. This project will reduce work from operations by making the communication automated. With as final goal to even receive orders via an automated system. An overview of the LabAccess progression during my time at Eurofins BioPharma Product Testing is shown in the methodology section and in appendix 3.

Next to the two projects I have been working on, I was also working with the Business Support team for general tasks. General tasks include: responding to customers questions, setting up quotations (cannot show a quotation due to protection of privacy of customers), helping with marketing through seminar, correcting mistakes in eLIMS, registering new clients, providing information to different organs in Eurofins BioPharma Product Testing and

many more. No clear results can be shown but an overview of some tasks will be given in the results section.

2.1. Results section

2.1.1 Result chapter 1 : Document management system results

The first result generated in this project is the perfecting of the protocol used to process contracts in the DM, found in appendix 1. Because this project is the launch of DM for Eurofins BioPharma Product Testing, a proper, repeatable and clear protocol had to be established. Through trial and error and good communication with Federica we were able to fill in the gaps and uncertainties in the protocol.

The second result in the DM project is the clean-up of all the backlog that was created due to the lack of a management system of documents. Figure 8 shows the progression of the active client folder list uploading. Here, we can see a steady uploading pace of the backlog contracts. In figure 9 we can see a slow start and a faster rate of uploading at the end. This is due to the perfecting of the protocol and getting used to the software.

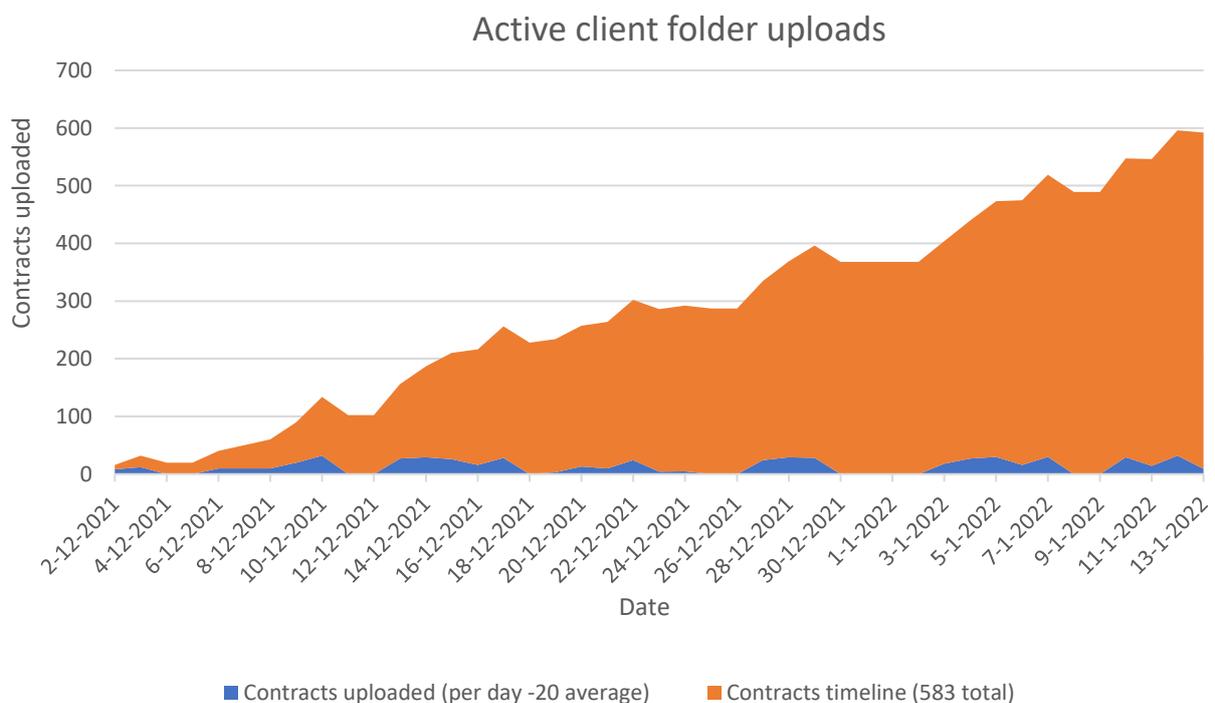


Figure 8: Active client list contract uploads during the internship

In the end a total of 583 contracts of the active client list was uploaded (complete list was finished except for exceptions, which will be discussed in the discussion section).

The third result is resolving the issue of constantly generating backlog. By setting up a mailbox and informing the staff about this mailbox, we were able to create a centralized place where all new contracts would be collected. This makes sure that in the future the processing of the documents is a lot more efficient and more automated. Now, only this mailbox has to be checked regularly for new contracts, which can be processed into the DM, job complete.

Lastly, staff had to be educated on how to work with the DM (for the PowerPoint presentation used see appendix 1). By the time my contract ended at Eurofins BioPharma Product Testing, all staff members had their introduction guide on DM.

2.1.2 Chapter 2: LabAccess progression overview Oct 2021-March 2022

When I joined the Business Support team in October, the LabAccess project was already ongoing. At first I was not assigned to this task, but quickly into my internship I got assigned to LabAccess. Together with Alexandro (and later with Luisa), we worked on increasing the amount of clients that used LabAccess in every lab site. In addition, we were responsible for the troubleshooting and customer support of this software.

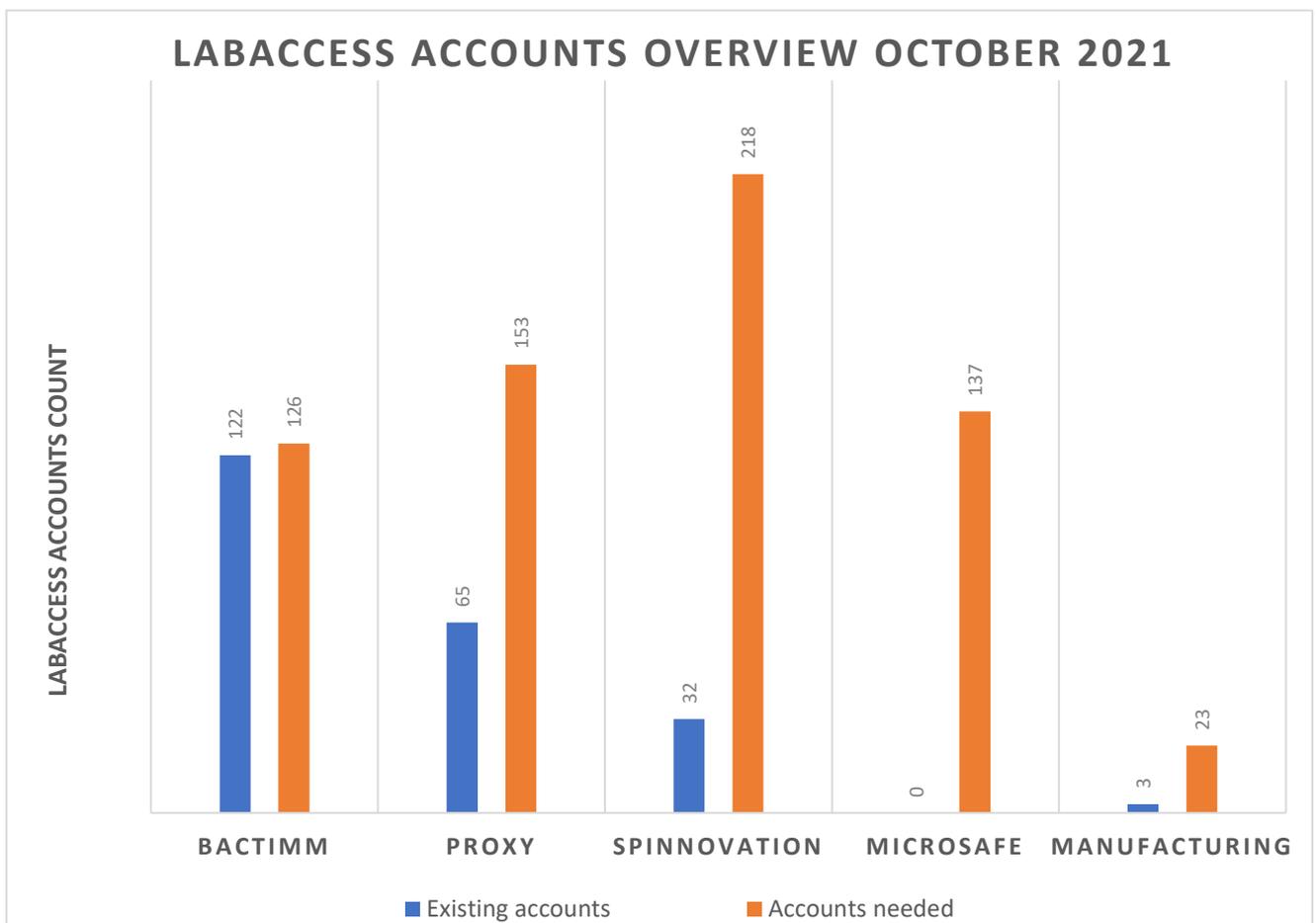


Figure 9: Existing LabAccess accounts and accounts needed to be created in October 2021 per lab site.

Figure 9 shows the overview of every lab site and their corresponding amount of existing LabAccess accounts (blue) and the accounts which are still needed to have 100% of the customers use LabAccess in their specific lab site. We can see that when I joined about 50% of clients for Eurofins Bactimm BV had an account, 25% for Eurofins Microsafe Laboratories BV, 13% for Spinnovation Analyticals, 0% for Eurofins Microsafe Laboratories and 11% for Manufacturing.

About halfway through March the different Business Units improved their % of active customers quite a bit. Figure 10 shows the overview of every lab site and their corresponding amount of existing LabAccess accounts (blue) and the accounts which are still needed to have 100% of the customers use LabAccess in their specific lab site as of March 2022.

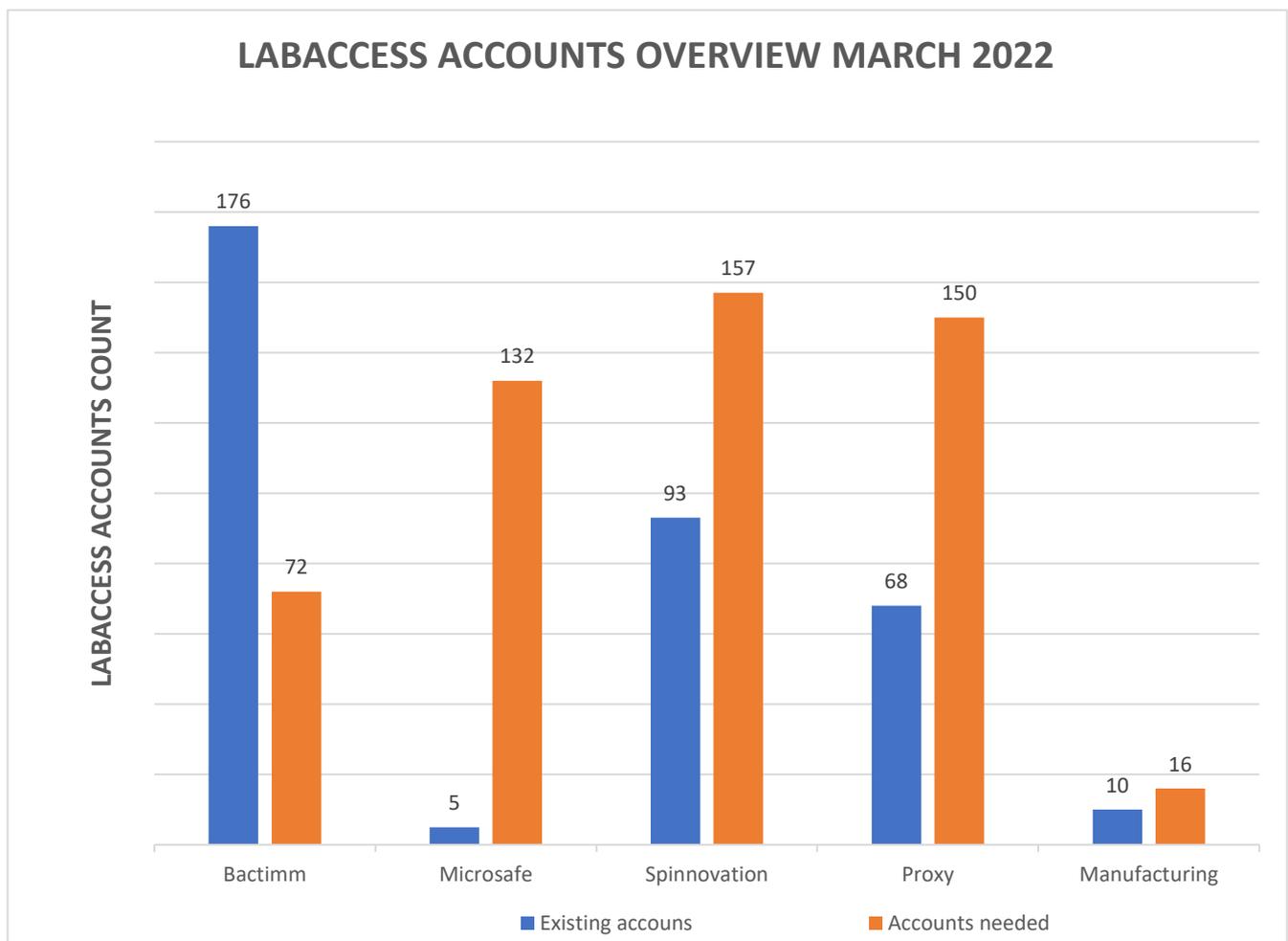


Figure 10: Existing LabAccess accounts and accounts needed to be created in March 2022 per lab site.

2.1.3 Chapter 3: General tasks as intern at Eurofins BioPharma Product Testing Business Support

The general tasks are near impossible to describe with metrics, however some metrics are:
 -About 750 emails are processed every week by Business Support.

-About 70 quotations are send out every week by Business Support.

As we can see some Business Units improved a lot, where others did not change too much. Figure 11 shows that in March 2022 about 71% of clients for Eurofins Bactimm BV had an account, 25% for Eurofins Microsafe Laboratories BV, 37% for Spinnovation Analyticals, 4% for Eurofins Microsafe Laboratories and 38% for Manufacturing. Compared to October 2021 every lab site increased their % of LabAccess users.

-Hosting a seminar with clients to market the catalogue of Eurofins BioPharma Product Testing.

-Information transfer between Business Support, Business Developer Managers, Lab Managers and clients.

2.2. Conclusion and recommendations

In this internship the goal was to introduce and implement the DM system in eLIMS. In addition, as an intern I was partly responsible for LabAccess and general Business Support tasks. The goal of introducing and implementing the DM System at Eurofins BioPharma Product Testing has been a successful project. The system is being used, information is being uploaded, staff has been educated and a way to manage new and old information is set-up. As shown in the discussion of the results, the amount of new and converted LabAccess accounts has also increased with an average of 31%.

Some recommendations after finishing my internship at Eurofins BioPharma Product Testing are; first of all, more digitalization projects. The problem with inefficient handling of documents and contracts is resolved. However, as described above, Eurofins BioPharma Product Testing uses a beautiful digital system which all customers are part of. Nevertheless, there are still quite some unwanted interactions, such as the LabAccess system, CRM and ComLIMS Quotation not working together in terms of CAPs, which leads to problems when assigning CAPs in LabAccess. This leads to many extra man hours which could be solved by a system change. Also, the pace at which new staff or interns get connect to these online systems is very slow. At the start of the internship it took almost two full weeks to get access to multiple systems at Eurofins BioPharma Product Testing, which is a waste of time and energy for both parties.

Another thing I noticed during the internship is the fact that not everyone has the same goal across all units in a company. As an intern working with the DM, the DM has the highest priority for me. However, staff working on other projects do not think the same way about the DM project. Planning further in advance could be a way to get the help and support from people you need outside of your own projects. In addition, when a project is the priority for the company, more stimulation from higher management could help speed up the process.

Clearly a transition was wanted by higher management to increase the efficiency of workload when handling documents. Quite some staff did not care about the project because they did not see a reason for change. Showing staff why a change might be a more efficient way is a nice way to increase the speed at which staff will adapt a new system. I think the slow implementation across all continents is a weakness of the more decentralized/entrepreneurial approach in such a large group of laboratories. After this internship, combined with my knowledge of international business I think this is simply a trade-off. Where Eurofins sacrifices some unity/collaboration for quicker innovation and adaptation to local markets. This internship was a great first step as a master student to work at a large international company, combination of social, business and science skills needed to work efficient, organized and deliver project within the time set by management.

2.3. The Self Reflection

For me this internship exactly matched up what I missed during the rest of my master program. During the business courses a lot of theory was learned in operations management, financial management, some marketing, (international) business and more business related courses. During these courses we had some room to adapt our theoretical knowledge on real world problems with cases or projects we had to complete. However, experiencing how a real world international company functions is the best way to test your skills and see if you enjoy it, which I did. My expectations for the internship were quite simple, I expected to see science and business come together in real world problems and projects. My main goal was to improve combining skills in communication, business and science. I think that during this internship the communication and business knowledge grew the most. The science knowledge was mainly useful to understand the different types of testing that were done in the labs.

There were a couple of things that amazed me both in a negative and in a positive way. I will start with the negative, trying to change something in a large international company is very hard and lots of approval need to be given before you can act on it. The consequence is things can go rather slow. Simple things like making sure lab managers or QA managers get access to certain systems so you can continue the project. Also, trying to change a protocol, or make decisions regarding methods need approval from managers. This internship learned me how to be patient and tackle this as efficient as possible. Putting 1 step of the process on hold while you wait for approval, continuing with something else so you do not have to waste your time. The big positive for me is observing the power of working together. During my internship, we, as a team had quite some hiccups. People being on sick leave due to corona, a colleague got a baby and went on paternity leave and one of the Business Developer Managers quitting the job without a substitute. This all led to certain pillars in the team missing, but by working together, improvising and good communication the team kept performing well.

There were two major challenges during this internship. The first one was setting up the logical way to tackle the huge folder of different contract and get structure in the project. Since this is the first time for Eurofins BioPharma Product Testing to try this new digital method, no one really knew how to do this efficient and effective. But by documenting the steps and sticking to the plan made, with some help of Federica, we managed to set up a nice project for future colleagues to build on. The second challenge was the rather messy communication when trying to get access to systems for QA managers and lab managers. Halfway through the project access needed to be granted to these people. But due to bad communication and constantly being send to other people, people not doing what they told you, it made this quite slow. Now that I have experienced this I know how to tackle this problem different next time.

I think this internship was very important for my professional development. From high school to near the end of my master I never had a very clear idea of what I wanted to do and what my skills are. I always knew I liked science, people and business and that combining these 3 would be a good match for me. However, I never got a clear picture of how these could come together. A company like Eurofins BioPharma Product Testing does really make this match for me, and shows me this is an environment where I can learn and keep growing, but also give back to the company.

Something I did very well in this project/internship is always keeping track of the big picture. I felt like I never got lost in the project or ran into a wall. I tried to share updates with my manager to show the progress and discuss any hiccups. A weakness during this project would be planning ahead more if approval is needed from higher managers. I feel like I lost quite some time waiting for approval/access to certain systems. There were still other things that needed to be done, but the project had some delays because of this. Partly this is not in my own hands but with the knowledge I have now versus the knowledge I had back then I am sure I could speed up/plan this better.

Looking at the future I can share something which I am very enthusiastic of. During my internship I had close contact with the campus recruiter at Eurofins BioPharma Product Testing. Halfway through my internship she called me if I wanted to help her with something on the side during the weekends to help their recruiting process. During this project I learned about the European Graduate Programme at Eurofins Benelux. This is a future leader program, where you help project managers or managing directors with setting up new sites, optimizing supply chain, environmental tasks etc. This program has as goal to accelerate career development, gain international business insight and more knowledge about managing in the life sciences industry. During this program you will tackle 3 projects across Europe, 8 months each in different countries. I decided to sign up for this program because it fit my "goals" for my future job perfectly: combining science, business and communication. I am happy to say that after a long application process and many interviews and tests I got the job offer and will be starting September the 1st!

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2.5. Appendices

2.5.1 APPENDIX 1: DM uploading protocol, redefined

The screenshot shows the 'Attach Document' interface in the eUIMS-BPT system. The browser address bar indicates the URL: prod.lims.eurofinsbpt.com/documentManagement/maintenance. The page title is 'Attach Document' and the user is logged in as 'Eurofins PROXY Laboratories Chemistry and Biochemistry (NL) | RAL8 (EUNLLE2)'. The form includes a 'Drop files to upload (or click)' area, a 'Receiving Lab Site' dropdown set to 'EUNLLE2', and a note '*Allowed File Type(s): :PDF'. The form fields are: 'Name of the document*' (text input), 'Description' (text input), 'Type of document*' (dropdown menu), 'Is Global' (checkbox), and 'Additional Lab Site(s)' (dropdown menu). Below these are search boxes for 'Account' and 'CAP', each with a search icon and a trash icon. At the bottom, there are date pickers for 'Received Date*', 'Effective Date', and 'Expiration Date', all with a 'dd/mm/yyyy' format and a clear icon.

Receiving Lab Site: The labsite with who the contract is signed with.

In the upper right, behind your PUID, select the correct receiving lab site.

Name: Client name_document name_month&year of signature

e.g.: [REDACTED]_Jan2021

Client name has to match the legal entity name (**full name**, NOT abbreviation) written on the contract

If different contracts from same client contain a **differently spelled client name**, please check on the company website for legal entity name and maintain uniform client name.

If client company has **changed name or trades under different names** over the years, use current name and add previous name in brackets *e.g.:* [REDACTED]

[REDACTED]_MSA_Apr2016

If the contract is between multiple client companies, also add them in the name by using '&'.

E.g. [REDACTED]_CDA_Mar2018

When naming the document, **keep the original document type in the name**, so the information of the original document type is not lost but still visible in the system from the name (See field 'Type').

Description: leave empty, only fill in to specify missing expiration date (see instructions below)

Document Type: select what applicable

If document type is **different/not present** in the list, use corresponding or most similar document type from the list available on DM, OR select “other”. See some examples below.

When naming the document, **keep the original document type in the name**, so the information of the original document type is not lost but still visible in the system from the name.

e.g.: in case of a SLA, upload the contract with document type MSA but call the document “**[REDACTED]**_SLA_Jan2021”

- SLA = service level agreement > MSA
- FSA = framework services agreement > MSA
- MSA = manufacture and supply agreement > MSA
- QTA = quality technical agreement > QAA
- SQA = supplier quality agreement > QAA
- Secrecy agreement > CDA/NDA
- FTE = Full- Time Equivalent > Other
- SOW = Work Order > Other

Is Global: NO, never tick this box. Documents are accessible only to Benelux sites, specified in following field.

Additional Lab Site(s): include all Benelux Business Units

- 5 NL sites: EUNLLE2, EUAB73, EUAB71, EUAC38, EUAC41
- 1 BE site: EUBEER

The list of Business Units defines who has access to the file and NOT who is taking part to the contract.

If a contract involves Interco partners external to Benelux, do not add them in the list of Business Units, always stick to the 6 Benelux sites. Each Interco partner has the responsibility to upload their own copy and the document will be present in duplicate in the system, once for each Eurofins site involved.

Account: search for account, see name and number from CRM.

If the contract is signed with more than 1 client, also add them here by clicking the ‘+’

CAP: Not requested for document type MSA/QAA/CDA&NDA, so leave empty when uploading these document types. When you select document type “other”, DM requires a CAP name. Send the document + CRM account number to the corresponding person per BU to obtain the correct CAP name:

- Microsafe: **[REDACTED]** (Sample management)
- Spinnovation: **[REDACTED]**
- Proxy: **[REDACTED]**
- Bactimm: **[REDACTED]**

Received date: use day of last signature

If day of signature is not stated, use effective date or any starting date available on the contract (this is a mandatory field and must be filled in).

Effective date: use starting date of the contract

This is a not mandatory field, if NOT available, leave empty

Expiration date: not mandatory, but always to be filled in (*request submitted to eLIMS team to add exp date as a search field*)

If an expiration date is not clearly stated in the document, set on 5 years from starting date and make a note in 'Description' to specify if any expiration rules are stated on the contract (direct copy and paste from document) or if no conditions are mentioned (*'Expiration conditions not mentioned on the contract'*).

If retrospective Expiration date, leave empty and add note in Description "Expired Month&Year".

Uploading: Once each field has been filled in, click 'Save' on the below left. This will upload the document and generate an overview and the document will have the status 'New' and it can be reviewed by other people (not mandatory).

Click 'Save and activate' on the below left to set the status of the contract to 'Active'.

Archiving: **If the contract has an expiration date in the future** or a not specified date, it will automatically get archived at the filled in expiration date. **If the contract has a retrospective expiration date**, click on 'Restrict' in the below left and also click 'Archive now'. The contract will be archived and will now show up in the direct search result anymore.

Addendum: **If the contract has an addendum**, this addendum can be added as a Supplemental Method Information Sheet (SMIS). Name is similar to above, however add 'addendum' behind the document type in the name e.g. "[REDACTED]_NDA Addendum_Jun2019".

New contract version: **If the contract has been renewed** and a new version is available, go to the overview page of the original contract and click below left on 'Replace document' (this is also possible for archived documents). Fill in the fields as specified above (Document type cannot be changed).

Implementation of the Document Management (DM) module in eLIMS–EBPT NL

Youp van der Linden & Lindsay Mulder

What is the Document Management system (DMS)

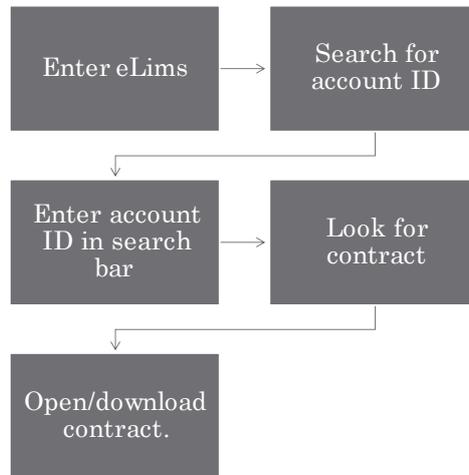
- Digital storage of contracts
- All Dutch business units + Belgium
- Contracts found in DMS
 - QAA (QTA/QA) Quality assurance agreements in all forms and types.
 - MSA (SLA/SA) Service agreements in all forms and types.
 - CDA (NDA/CA) Confidentiality agreements in all forms and types.

Why use the Document Management system

- -Security
- -Uniformity in storing and extracting contracts across all BU in NL
- -Digital storage improves efficiency

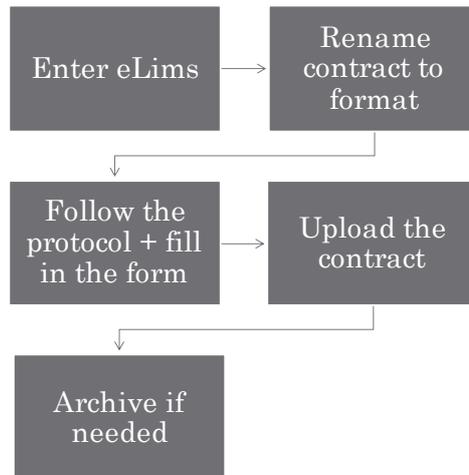
How to extract contracts from the DMS

- -Demo
- -Protocol + flowchart



How to upload contracts to the DMS

- -Demo
- -Protocol we will share

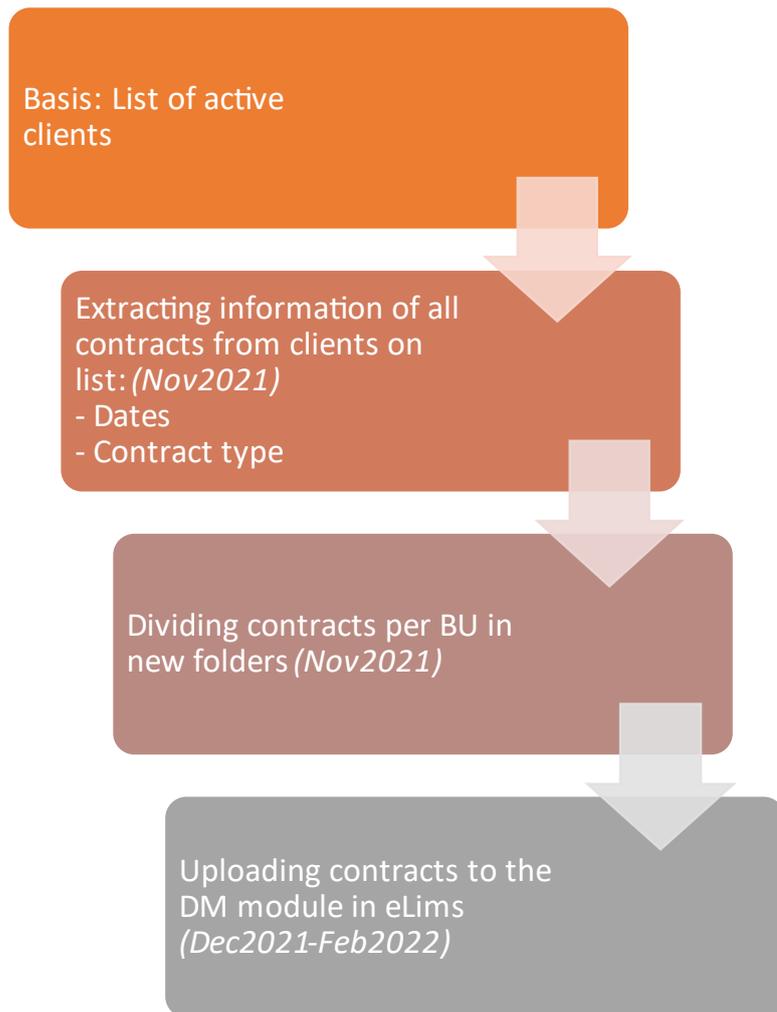


2.5.2. APPENDIX 2: Final DM PowerPoint presentation with quick overview of achieved goals and goals still to be achieved.

Document management module eLims - Progress

End of March 2022

What we've been working on:



What we've been working on:

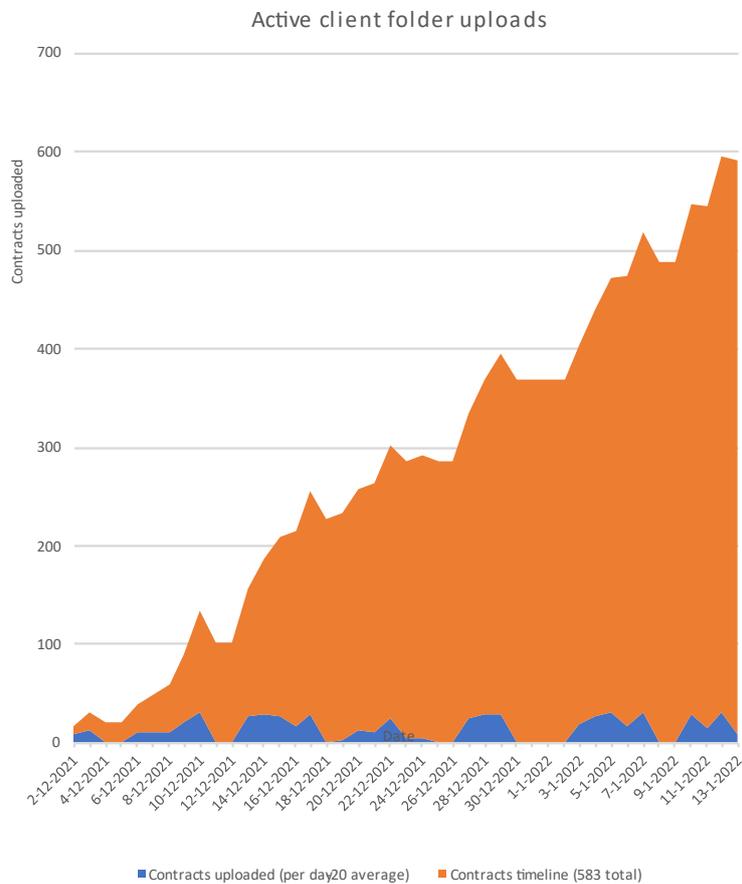
All contracts from active client list are uploaded (*13th of January*).

Prepare email for switch BDs/QAAs etc., to eLims/get access and send it. (*week 2 of January*).
And prepare powerpoint presentations to explain DMS.

Achrive all contracts in Elims that expired before 01-2022 (*week 2 and 3 of January*).

Overview of progress so far:

- Average of 20 documents per working day per person is normal speed (started slower, now quicker).
- In Addition, around 200 contracts are archived now due to expiration date before 01 -2022.
 - 583 out of 657 documents uploaded as of 13th of January
 - Gap of 70 documents is amendments/contract drafts/different types of contracts.
 - Bactimm, Msl, Spinnovation and Proxy= 100% complete.



What still needs to be done:



Go through each folder in Shared/Clients/ and upload remaining contracts.



Design protocol/method for uploading Addendums/different contract types/outliers.



Key accounts.



Essential to get all BDs/Employees that work with contracts to get access to eLims document management.

2.5.3. APPENDIX 3: LabAccess results and progression

