



Newsletter

October 2019

Strengthened expectations for the future

Nexam Chemical is in an exciting position, which I believe will be evident in this newsletter. We continue to grow at a steady pace, despite the fact that the market situation offers challenges. One challenge is, of course, an impending Brexit which requires large-scale preparations, including warehouse logistics and creating VAT and EORI numbers. As we mentioned in the previous newsletter, our factory in St Andrews broke production records last year. The plant has so far met production needs, but will now require increased flexibility and capacity.

Since the last newsletter, we have informed about our increased cooperation with DIAB, among other things. Through the interview with DIAB's CEO Tobias Hahn in this issue, we want to give you more information about DIAB and its success story.

We have been working with PET foam additives for a long time and are starting to be established in the area. Therefore, it is satisfactory that we are able to both find more applications for PET foam and that the whole market is growing strongly. Our PET foam is also interesting from a sustainability perspective. PET foam is in many ways a brilliant example of sustainable solutions in the polymer field. PET foam is mainly used in wind power, can be made from recycled material and can be recycled at the end of the product cycle.

Global investments in renewable energy are expected to increase significantly in the coming years, and are being driven by major expansion of wind power capacity, not least in China and the US. Therefore, the need for PET foam for the wind power industry seems great in the future, and you can read more about the overall efforts in wind power globally in the newsletter's current trend section.

Another news to read about is Nexam Chemical's new organizational structure created to facilitate continued international expansion. We are pleased that the new management has been strengthened, including our

newly appointed CFO Marcus Nyberg. [Read the interview with Marcus where he introduces himself more closely.](#)

The acquisition of Plasticolor has generated a platform for Nexam Chemical that gives us a larger continuous business and a broader customer base. However, there is currently some market uncertainty. Many polymer manufacturers see falling volumes. This is not something that Nexam Chemical is completely protected from. At the same time, in such situations it is possible to increase in market share. You can read more about Plasticolor's history and future plans in the newsletter, and get to know one of the founders - Jimmy Holm.

Some of us have spent a few rewarding days at the world's largest trade fair for the polymer industry; K-show in Düsseldorf. An obvious topic for the fair was sustainable development for the industry. This is an area that fits Nexam Chemical. We work intensively to improve our internal sustainability work. However, the big opportunity for us lies at the product level. The applications we work with work almost exclusively by making our customers' products lighter, stronger or by extending their lifespan. These are properties that take the polymer industry in the right direction.

At last, I would like to inform that Penser Bank has started analyzing Nexam Chemical. The first analysis was published a few days ago. Penser's analyzes will hopefully be an interesting complement in understanding the potential of Nexam Chemical. Penser Bank will update the analysis regularly.



Enjoy the reading,
Johan Arvidsson, CEO

Nexam Chemical extends its cooperation with Diab



Nexam Chemical is significantly expanding its collaboration with Diab. The collaboration agreement between Nexam Chemical and Diab was signed in 2015 as a development project, which laid the foundation for new high-performance PET-foam products containing Nexam Chemical's NEXAMITE® technology. The collaboration now generates growing business with increasing volumes for Nexam Chemical as Diab is experiencing strong growth in the PET-foam segment.

Diab is a leading manufacturer of high performance foams and is growing strongly as the market expands. PET foam produced by Diab contains Nexam Chemical's property-enhancing additive NEXAMITE® as a crucial component. Diab's development will result in increased growth for Nexam Chemical, which will henceforth supply Diab's production in Europe, North America and Asia.

"The increased cooperation with Diab is strategically important to us. Our NEXAMITE® technology provides

major property improvements in PET foam and the market for PET foam is in continuous strong growth. We are now streamlining our production to meet this growth. Products with PET foam show strong competitive advantages in many applications, not least from a sustainability perspective. Our NEXAMITE® technology in Diab's products contributes to increased durability at several levels - by creating lighter and stronger materials, as well as by application in renewable energy such as wind energy," says Johan Arvidsson, CEO of Nexam Chemical.

Composite manufacturer Diab is a global market leader in the development, manufacture and sale of core materials for various types of composite structures - including blades for wind turbines, in the manufacture of boats, aircraft, trains, buses and in building construction. Diab's materials are characterized by a unique combination of light weight, high strength, insulation and chemical resistance. By reducing the weight of the finished product and the need for maintenance, Diab's materials help to reduce energy consumption and environmental impact throughout the product's entire life cycle.

Tailwind in the wind power market explains DIAB's positive development

The past year, DIAB has undergone a great trend change. As recently as January this year, DIAB was called a crisis company in Dagens Industri but since then much has happened. The turnaround is mainly explained by strong growth in the wind power industry. Tailwind is now evident for DIAB's CEO Tobias Hahn.

Nexam Chemical has extended its cooperation with DIAB, as a result of DIAB signing a five-year contract with the wind power producer Vestas. The timing is good for wind power and the market looks quite stable over the next ten years. Demand is mainly driven by the US, China, India but also Europe and Sweden.

DIAB has focused its production on PVC-based materials for a long time, but recently decided to convert to a larger proportion of PET in its product portfolio over the next three years.

"The transition requires large investments, which we are now doing in Europe, the US and partly in Asia. DIAB increases factory capacity in the major regions of the world.

There we produce our PET material, with additives from Nexam Chemical's Nexamite in masterbatch", Tobias says.

Price, performance and predictability

The reason for the production conversion is the increased demand for PET material that DIAB predicts for the near future.

"We expect that the PET use in wind turbines will triple in the next 10 years," says Tobias.

The sharp rise has several explanations. On the one hand, the entire wind power market is growing, and with that, PET use is increasing. On the other, a general conversion to PET is occurring in the industry. The large international wind power companies that DIAB supply have previously depended on balsa wood and PVC, but they are gradually transitioning to PET as a core material. The transition is due to the relative benefits of PET in terms of price, performance and predictability in volume supply.

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A third reason is that the off-shore market is the most growing segment of wind power. There is a shortage of land to build wind farms on and offshore wind turbines are larger and more efficient. Larger wind turbines means larger blades, which means that more core material per wind turbine is needed.

“Right now, there is a deficit of both balsa wood and PET on the market. PET production is sub-dimensioned to the demand. That is why companies want to sign long-term contracts to secure their access to materials,” Tobias says.

DIAB has been granted larger and more secure contracts than ever before, which strengthens and stabilizes its business.

Several reasons for success

Although much of DIAB's trend breach this year can be explained by the growth of the wind power industry, there are more reasons for the turnaround. Tobias believes that the company has more recently focused its production on certain key applications. This means that the organization has become more rigorous and utilizes existing competence and production more efficiently.

“This year, DIAB's factories have basically gone full. We have good capacity utilization, we have a favorable price development and a positive customer development. Right now, everything is going in the right direction for us,” Tobias says.

Another factor that DIAB has succeeded in is to reduce their waste material, to zero. The change entails reduced costs and lower environmental impact.

“Since May this year, DIAB does not deposit any waste material in Sweden,” says Tobias.

To summarize, Tobias believes that the positive trend lately has many explanations, but that there is yet much to change. DIAB will now continue to expand its production capacity for PET, and also develop the product's qualities.

“Now we sell the material that is popular for our wind power customers, but there are other types of PET that we will develop further. PET is a relatively new material. There are many new qualities that we want to develop. DIAB will increase its product development budget the coming years”, Tobias concludes.





Nexam Chemical is reorganizing for continued international expansion

Nexam Chemical continues its global growth and adapts both management team and organization accordingly. To reflect the company's international presence, Nexam Chemical presents a new organizational model and several new members of the management team.

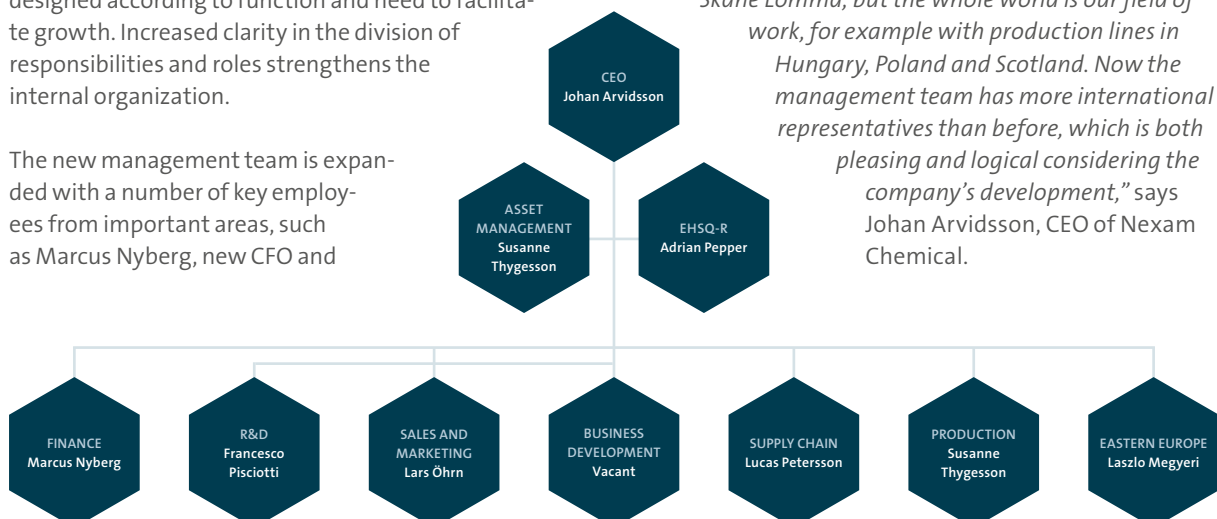
Nexam Chemical is growing both nationally and internationally. After the strongest first half year ever in terms of sales, the organizational structure needs to be updated to support changing needs and continued international expansion. Nexam Chemical's new management team and the organization beneath is now being designed according to function and need to facilitate growth. Increased clarity in the division of responsibilities and roles strengthens the internal organization.

The new management team is expanded with a number of key employees from important areas, such as Marcus Nyberg, new CFO and

Lucas Petersson, supply chain manager. Reinforcement also comes from Adrian Pepper who is Group Regulatory and EHSQ Manager at Nexam Chemical's plant in St Andrews and Laszlo Megyeri who is the CEO of Hungary.

Previously, Susanne Thygesson (asset management), Lars Öhrn (sales and marketing) and Francesco Pisciotti (R&D) are members of Nexam Chemical's management team in addition to CEO Johan Arvidsson.

"Nexam Chemical needs an organization that reflects our focus on global growth. We have our base in Skåne Lomma, but the whole world is our field of work, for example with production lines in Hungary, Poland and Scotland. Now the management team has more international representatives than before, which is both pleasing and logical considering the company's development," says Johan Arvidsson, CEO of Nexam Chemical.





Jimmy Holm, en av grundarna till Plasticolor

Color and function

Jimmy Holm has been working with color formulation since the 1970s and is one of the founders of Plasticolor, now part of Nexam Chemical. The company and the pigment industry are constantly evolving, both nationally and internationally.

Nearly 30 years ago, Plasticolor, which is now part of Nexam Chemical, was founded. Jimmy Holm was one of five who started the company in 1990 after many years at Clariant in Malmö. Jimmy's main job is and has always been to formulate color, that is, to create recipes for different colors depending on materials and desired properties.

There is no education for such. Rather, it is a matter of experience and feeling. "It's an artistic work and a matter of materials, application and pigment knowledge," Jimmy says.

However, much has happened since Jimmy entered the industry in 1976. In the 70s, both lead chromates and cadmium pigments were used, which are now banned. Hence, it is a completely different pigment range that is used today compared to then. Now there are a large number of organic pigments developed to replace the old metal-based pigments. Jimmy believes that the trend towards more environmentally friendly materials will continue and that Nexam Chemical can meet the needs of the future.

Nexam Chemical's technology for the future

"The more regenerated - recycled material - we work with, the harder it will be to maintain tolerance as the material's own color varies. However, Nexam Chemical's technology and chemistry will come in handy because we can add process aids to upgrade the plastic again," Jimmy says.

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There are more parameters than just the pigment to consider when it comes to meeting the customer's desire for color reproduction and function of the plastic. This is where Nexam Chemical's feature masterbatch plays its role. For example, the plastics should not break down when exposed to UV radiation.

"It is vital to have good knowledge of the customer, applications and materials. If you are in a competitive situation, you must be able to optimize the recipes for the customer to receive orders. We have been successful with this over the years," says Jimmy.

Customers are happy to come to Lomma for inspiration and ideas for new colors. The reference library with over 25,000 colors and samples there, is a fantastic asset in the development work with the customer.

Color the future

Jimmy himself is retiring soon, but the company is constantly evolving. With production in Sweden, Hungary and Poland and exports throughout Scandinavia and around Europe, growth continues at an accelerated rate.

Nexam Chemical will invest in paint and has among other things hired more sales people. Last year, both the factories in Sweden and Hungary were streamlined with the aim to increase the capacity of the plants.

Processes and production continue to be upgraded to manage growth, including by improving lab equipment for increased efficiency in the formulation process. The organization has been strengthened with more color matching specialists in both Sweden and Hungary.

Nexam Chemical works actively with regulatory information on pigments and is constantly looking for more sustainable alternatives. For example, Nexam Chemical offers biobased or recycled carrier materials in color



masterbatch and intends to develop even more recycled alternatives.

We color the future.

NEW TECHNOLOGY IN PIGMENTS

A team of researchers from MIT's AI lab created a reprogrammable ink that allows objects to change colors when exposed to ultraviolet (UV) and visible light sources, like a chameleon.

The function they created is called "PhotoChromeleon" and uses a mixture of photochromic dyes that can be sprayed or painted on the surface of the object to change its color. The process is completely reversible and can be repeated endlessly. PhotoChromeleon can be used to customize and change the color of everything from a mobile case to a car that needs updating.

Source: <http://news.mit.edu/2019/changing-colors-photochromeleon-mit-csail-0910>

Marcus Nyberg is Nexam Chemical's new CFO

On August 1, Marcus Nyberg started as CFO for Nexam Chemical. It was Nexam Chemical's potential as a growth company that attracted Marcus, and it was his experience and development ability that he believes captured Nexam Chemical's attention to him.

Marcus Nyberg is 44 years old and lives with his family within walking distance of Nexam Chemical's head office in Lomma. He is an MBA from Lund University and most recently comes from a position as CFO of LGT Logistics. Prior to that, he was finance director at Greenworks Tools and he also has a long background at ADB Safegate - a niche and world-leading company in aircraft logistics. When Marcus took office there, ADB Safegate had five subsidiaries and a turnover of about 400 million. When he left nine years later, the group had sales of approximately SEK 1.3 billion and had 13 subsidiaries.

"I wanted to be part of the development. The company started from nothing but grew enormously. That meant that there was always a lot going on and above all, one always had to be prepared for unpredicted actions. I like that working environment best," says Marcus.

Marcus has broad experience in finance and governance in fast-growing and dynamic international companies. He has worked on establishing international companies from the ground up, where implementation of administrative processes and financial reporting have been important parts. Marcus also has a background as an accountant.

It is the small and medium-sized growth companies that Marcus now finds most interesting to work with, because they possess great potential as well as great challenges - both for the company but also in the role of CFO.

"Your area of responsibility as CFO becomes broad and your impact on development can be greater than otherwise," says Marcus.

He thrives on working in constant change on a growth journey - to stand firm in the developing process and

being confident in the uncertainty. It is that experience he brings with him in his role in Nexam Chemical and also what attracted him to the company.

Another thing Marcus finds exciting is that Nexam Chemical is a publicly listed company. That comes with a lot of laws and regulations, but with his background as an accountant, it is something Marcus just looks at positively.

"I couldn't say no to that - it's too exciting," Marcus thinks.

In addition to ensuring that all legal aspects of financial management work smoothly, Marcus believes that the most important responsibility in his role as CFO is creating clear structures for measuring profitability and ensuring that the company uses resources appropriately.

"We must have clear answers and hard facts about the questions that exist - where do we make money, where do we not. That is the foundation of my job," says Marcus.

His vision is to standardize, streamline and digitize Nexam Chemical's financial reporting. He wants to design the finance of Nexam Chemical for the future.

"The challenges in the role are to build as efficient an economy function as possible and at the same time to equip it for the future," says Marcus.

Regarding the future, Marcus looks very positively upon it for Nexam Chemical.



"We are developing well and the company is starting to reach a stable position in the market. The growth journey started continues at an increasing rate and it is very fun to now be part of it," Marcus concludes.

Marcus Nyberg
CFO, Nexam Chemicals

Nexam Chemical is about to recycle black plastic

The demand for sorting different fractions of polymers for recycling is increasing rapidly. Today, FT-IR and NIR* technology is used to detect and sort polymers, but so far it has been impossible to sort carbon black polymers.

Recently, however, other black pigments that can replace carbon black color and at the same time be detected with NIR spectroscopy have been developed. With the help of these new solutions in NIR technology, Nexam Chemical has conducted successful tests for the detection and sorting of black polymer articles.

The tests were executed at TOMRA's test facility in Germany. Read more about recycling of black pigments in the next newsletter.

* Near infrared spectroscopy



Nexam Chemical at the world's largest plastic fair in Düsseldorf



Every three years, the world's plastic industry gathers in Düsseldorf at the K-trade fair. Over 3,000 exhibitors from more than 60 countries are there to discuss current trends and issues in the rubber and plastic industry.

The K fair is a natural meeting place for business, trends and news about where the polymer market is headed. This year's fair had a clear focus on sustainability, recycling and circular economy. More and more people are realizing that polymeric materials are part of a sustainable future and the industry is now starting to find strategies to change that attitude.

Nexam Chemical has a product portfolio today and new products under development that help the industry become more sustainable, lighter and stronger. Last fair, three years ago, we needed to look for companies that were interested in sustainability and recycling. This year it was difficult to find someone who was not interested. It is quite clear that the industry is moving in a direction that fits Nexam Chemical's offer.



TREND REPORT:

Increased global need for wind power with China and the US at the forefront

Large investments in renewable energy are necessary to meet increasing energy needs in an environmentally sustainable way. According to global management consulting firm McKinsey's latest energy report¹, many countries will reach a breaking point within five years where investments in renewable energy will be more cost-effective than investments in conventional fossil energy sources. Specifically, wind power and solar energy is estimated to account for almost half of the global energy capacity in 2035.

An increased global need for wind power is primarily driven by the two giants when it comes to energy production; China and the United States. China is the world's largest wind power market both in terms of new and existing plants. In 2018, 20.2 GW of onshore wind power and 1.6 GW of offshore wind power were installed in China, representing 44% and 37% of global market share respectively.

The Chinese investment in wind power seems to be increasing further, and we will probably see a boom on land-based wind power over the next one and a half years in the Chinese market. It is estimated that plant levels will be at 25 GW in 2019 and 28 GW in 2020. Such a boom can be explained by political decisions to move towards subsidy-free land-based wind power, which is another proof that this type of energy has become very competitive².

Even in the US, the construction of wind turbines is increasing and reached a new highest level during Q2 2019. In total, a wind power capacity equivalent to 42 GW is in the pipeline, which means that it is either being built or is in the late stages of planning. This is an increase of 10% compared to 2018. In total, the United States has a wind power capacity of 98 GW distributed over more than 57,000 turbines in 41 states. Specifically, major turbines with a capacity of more than 3.5 MW are being invested, largely because innovation and development have led to lower costs and increased performance³.

In Europe, where Germany accounts for the largest share of wind power with a total capacity of 59 GW, an ambitious initiative to recycle turbine blades has been launched. It is the European Composite Industry Association (EuCIA) together with the European Chemical Industry Council (Cefic) and WindEurope that have joined forces to increase the circularity of the wind power industry. Of the 130,000 turbines in Europe, it is estimated that about 12,000 will need to be dismantled in the next five years because they have reached their maximum service life. The chemistry industry plays a major role in managing the waste from old wind turbines and being able to recycle them to produce new high-tech wind turbines, as demand will continue to increase in the European market as well⁴.

¹ *Global Energy Perspective 2019: Reference Case, Energy Insights, McKinsey*

² https://gwec.net/market-to-watch-china/?mc_cid=c28d4c78c5&mc_eid=f3f331e0b2

³ <https://www.compositesworld.com/news/awea-reports-record-us-wind-farm-activity-in-q2-2019>

⁴ <https://www.compositesworld.com/news/joint-project-to-advance-wind-turbine-blade-recycling>