NEXAM CHEMICAL

March 2020

In Nexam Chemical's first newsletter for 2020, CEO Johan Arvidsson talks about the current rights issue, as well as other changes. After this, you can read about our intensified sustainability work, our employees and wind power development in India. We sincerely hope you enjoy reading this issue, and getting insights about what is going on in our world.

WORDS OF OUR CEO

High ambitions for sustainable growth

The level of activity is high for Nexam Chemical – just as always.However, this year has started with a major turmoil in our surrounding world with the corona-virus outbreak. We monitor developments closely and remain in constant dialogue with both our customers and suppliers. We also follow directives and guidelines from local authorities in the countries we act. For the time being, our business or operations are not particularly affected by the situation. Should this change, a fully-fledged action plan is prepared and can be implemented quickly.

Meanwhile, Nexam Chemical is moving forward, both externally and internally. Among other things, our website will soon be updated and on April 1st, our new business development manager Henrik Bernquist will start. Henry's main area of responsibility will be to develop our high performance range commercially. You can read more about him in this newsletter.

We are currently preparing for the annual general meeting on May 13 and have recently conducted and an extraordinary general meeting, due to the ongoing rights issue.

The rights issue is an inevitable effect of both our historical and our expected growth. In order to meet increased demands from customers, our production capacity must expand as well become more efficient. This is basically something very gratifying – satisfied customers lead to an increase in demand volume from existing customers and, at the same time, new customers. The rights issue will enable growth initiatives which are necessary for making it possible for us to gear up and meet future needs. You can read more about the history of Nexam St Andrews, the planned redevelopment, the site team and site manager David Milne in this newsletter.

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”The ambition for this year is to become clearer in communicating that specific sustainability message.”

Our growth rate is high, and the market potential is great – not least because of the developments in wind power. Last year, many years of hard work in the PET foam segment, as well as other areas, bore fruit. The market is driven by developments in the wind power industry and is expected to grow rapidly this year as well. On the one hand, the entire wind power market is growing, and on the other, the share of PET foam use is increasing. A general conversion to PET as a core material is taking place in the entire wind power market. At the same time, the offshore market is growing most in terms of facilities. Offshore wind turbines are larger and more efficient, which means larger rotor blades, which means that more core material per wind turbine is required. India is one of the countries where the offshore market is being developed – which you can read more about in the newsletter's trend report.

PET foam is sustainable based on its recyclability aspect, and due to its light weight characteristics. Through applications in wind power, this is one of several examples of where our products provide great benefit – a benefit significantly greater than Nexam Chemical itself. The ambition for this year is to become clearer in communicating that specific sustainability message. There is a high demand from investors for Nexam Chemical to progress within sustainability, and is also vital for future generations. Our vision is therefore to contribute to a sustainable future through innovative chemistry and by providing solutions to save on our planet's valuable and scarce resources. The nature of climate problems requires high ambitions and effective measures.

Against this background, we are intensively working to improve our internal and external sustainability work. With us, we have the sustainability consultant Thomas Bergmark, former global sustainability manager for the IKEA Group. Thomas has a solid experience of sustainability issues and he is, in many ways, a role model of the change needed to reach a sustainable world. It is very rewarding that Nexam Chemical is now able to share Thomas Bergmark's experiences and knowledge, which we will tell you more about in this newsletter.

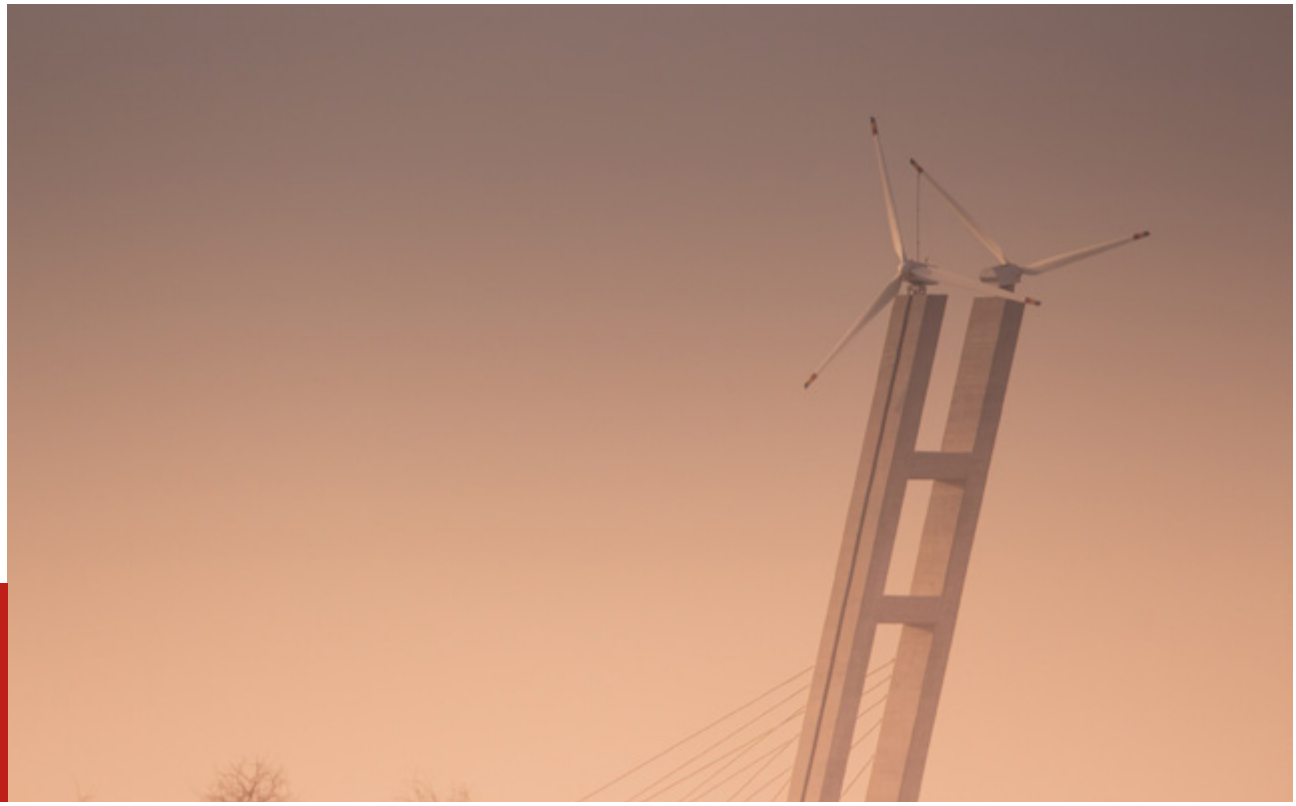
Another article on the same theme in the newsletter is our work on developing technology which can enable the recycling of black plastic – something that so far has been problematic. Nexam Chemical has come a long way in solving this challenge. Our innovative technology is undoubtedly cutting edge and contributes to sustainable development in many ways.

Are you curious to hear even more about what is happening in the company at the moment, please listen to the presentation I gave at Aktiedagen in Stockholm about Nexam Chemicals development on nexamchemical.se.

Once again, many things are happening at the company, which is natural in the growth phase we are in. We entered 2020 with strong confidence and high expectations that the year will partly fulfill our market potential, with increased production and profitability. At the same time, we want to develop both our sustainability work and our world-class innovative chemistry.

I wish you a pleasant reading.

Johan Arvidsson,
CEO, Nexam Chemical



TREND REPORT INDIA

Sustainable energy solutions critical for a growing population

India, today the world's second most populous country with 1,37 billion people, is expected to surpass China as the most populous country in the world during the 2020's. The massive increase in population will undeniably put pressure on the energy supply in the country which today consists of 75 percent fossil energy sources.

Developing the energy infrastructure in a country with a growing population of that scale is naturally a significant and urgent challenge. When India's Prime Minister held the opening remarks for the country's large oil and gas conference Petrotech 2016, the message was:

India needs energy which is accessible to the poor. It needs efficiency in energy use. As a responsible global citizen, India is committed to combating climate change, curbing emissions and ensuring a sustainable future. Given global uncertainties, India also needs energy security.

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”...India has committed to reduce its carbon footprint by 33 percent by 2030...”

This is the foundation to what is today known as the four pillars of India’s future energy development; energy access, energy efficiency, energy sustainability and energy security.

The sustainability dimension is naturally a pivotal part of the energy mix and a crucial focus area going forward when India has committed to reduce its carbon footprint by 33 percent by 2030 (from year 2005 levels) through investments in renewable energy and natural gas.[1]

The Indian government set an ambitious target in 2015 to install 175 GW of renewable energy capacity by 2022. Of the total 175 GW, 100 GW will be solar power, 60 GW wind power, 10 GW bio energy and 5 GW small hydro power. Even if recent results show that India is somewhat behind on reaching its renewable energy targets, the latest reports estimate that the country by 2022 will have installed 54,7 GW capacity from wind power.[2] A massive increase from the country’s confirmed wind power capacity at 35 GW in 2019.[3]

To succeed in that increase in wind power capacity, smart and effective solutions are critical in the infrastructural development, both at land and at sea. Today there are better suited and more optimized materials and solutions than ever for building large, efficient wind turbines, and the development is rapid. Therefore, it is logical that India is making considerable investments in establishing renewable energy sources which are estimated to be more cost effective than existing coal- and gas energy sources already before 2030.[4]

[1] Building a new energy security architecture, 2017, McKinsey&Company
[2] https://www.thehindubusinessline.com/economy/india-to-install-547-gw-wind-capacity-by-2022-fitch-solutions/article26971723.ece#
[3] https://www.power-technology.com/features/wind-energy-by-country/
[4] Global Energy Perspective 2019: Reference Case, Energy Insights, McKinsey&Company

SUSTAINABILITY

Deeper focus on sustainability

In our previous newsletter, we introduced Nexam Chemical's sustainability work. Our model is built on three pillars – through our innovations for sustainability, our products as enablers for sustainable development and through our own sustainable operations. Nexam Chemical's clients, who in many cases are world-leading chemical and material companies, have high demands on our actions in terms of quality, environmental impact and safety.

In this context, we have chosen to involve the sustainability consultant Thomas Bergmark, former global sustainability manager for the IKEA Group. In a project, Thomas and Nexam Chemical's management team s are jointly clarifying our way of working with sustainably and a long-term roadmap is taking shape.

– Sustainably work is never completed. However, Nexam Chemical has a foundation built up by the compa-

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”The timing could not be better to invest in sustainability...”

ny over a long period of time. We are developing this groundwork and will make constant improvements over the coming years. There are constantly new challenges and opportunities that all actors in the industry must be aware off, says Thomas.

The project began in 2019 with a situation assessment. A vision is now taking form that will guide Nexam Chemical in the sustainability area. For example, the vision states that Nexam Chemical’s sustainability work is based on the United Nation’s (UN) widely recognized sustainability goals. It also declares that we are economizing the resources of the planet and enable our clients to contribute to a sustainable growth through innovative solutions. Moreover, a number of strategic priorities have been developed as well as an action plan with tangible measures to achieve this vision. Some of the measurable goals will be achieved as early as 2022.

– Nexam Chemical’s management team has agreed on the strategic priorities to be highlighted in order to achieve the vision. In the spring of 2020, we will land in quantifiable goals and key indicators. These will of course be followed up, says Thomas.

He states that Nexam Chemical’s sustainability work is developed in several areas. One is that better utilization of resources such as raw materials, energy, water and chemicals contributes to a reduced environmental impact and increased savings. This applies to the entire value chain, including our suppliers who have a major impact in all dimensions of the sustainability work – not least in terms of responsibility for health and safety.

Increased demands

Thomas Bergmark has over 30 years of experience in sustainable business development. He believes that the market of polymer materials is increasingly in demand for solutions that enhance properties and performance. Solutions need to provide opportunities for both economic and environmental savings.

– It is an exciting industry, but it is also questioned. Customer demands have exploded in terms of sustainable solutions that simultaneously secure financial returns. These solutions are necessary for world-leading chemical and material companies whom must face the increased pressure to renew their business, says Thomas.

Nexam Chemical’s technologies enable clients to produce products with improved properties and performance in terms of increased temperature resistance and strength in components, chemical resistance and longevity. This creates more lightweight, smarter and more durable materials. Thomas argues that helping reducing the environmental impact at all stages of the value chain, all the way from purchasing he product to end-customer while reducing costs, is an advantage for Nexam Chemical.

– I am convinced that customers will demand the best possible within their respective applications from an environmental and sustainability perspective. Nexam Chemical’s technology increases material utilization and productivity and reduces costs. This offer makes the company attractive to the customers. The timing could not be better to invest in sustainability and make it more visible, Thomas concludes.

Thomas Bergmark,
Sustainability consultant

SUSTAINABILITY

Progress in plastic recycling

The use of plastic is constantly increasing and in 2018, global production consisted of just over 360 million tonnes[1]. Plastic mainly consists of one or more polymers which have been mixed with additives. As the use of plastic increases, so does the need to recycle what is produced.

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”A majority of the plastic packaging manufactured is not made for recycling and only 14 percent is collected globally for recycling.”

According to researchers affiliated with the Mistra-funded research program STEPS, Sustainable Plastics and Transition Pathways, today’s recycling of plastic is insufficient. A majority of the plastic packaging manufactured is not made for recycling and only 14 percent is collected globally for recycling. Sorting polymer containing a larger proportion of carbon black (soot) is one of the biggest challenges connected to this. This is something commonly discussed as black plastic.

Today, black plastic is widely used. One example is the food industry where the dark pigment of the packaging provides a contrasting background which makes the colors of the food highlighted in a satisfactory way. Polymer with a greater amount of black pigments is also used for technical applications with special requirements, such as for vehicle components and electronics.

The product has a low cost and good propagation- and masking characteristics. Both retailers and manufacturers are therefore keen to solve the challenge of recycling black plastic, but so far, the solutions have been few.

Nexam Chemical meets demand

Today, FT-IR and NIR technology[2] are used to detect and distinguish polymers for recycling. However, the optical sorting machines used have limitations because they cannot automatically divide plastic articles containing higher levels of black pigment. The infrared light used by the machines is absorbed by the dark pigment and instead of the plastic articles being sorted and recycled, they become waste. The fact that dark plastic items become invisible and get thrown away, is an important problem to be solved because the plastic waste leads to environmental and financial losses.

As we previously revealed, Nexam Chemical conducted successful tests in 2019 with new solutions in NIR spectroscopy for detection and sorting of black colored plastic. The tests, which were carried out at TOMRA’s test facility in Germany, have continued to generate good results. In short, carbon black is replaced with an innovative alternative which is readable with NIR technology. To the eye, the color is perceived as very dark, but in fact it is not completely carbon black. This allows the machines to distinguish the particles. The result is that the plastic retains its positive traits while being recyclable.

Against this backdrop, Nexam Chemical has initiated new projects with commercial partners and further tests have been carried out. Naturally, we will continue with progress updates in coming newsletters.

[1] PlasticsEurope: Plastics – the Facts 2019. An analysis of European latest plastics production, demand and waste data.”
[2] Near infrared spectroscopy

PORTRAIT

Thriving production in St Andrews

David Milne is the site manager at the production facility at Cupar, near St Andrews, Scotland, and has been operating at the site even before it belonged to Nexam Chemical. David holds a PhD in chemistry from University of St Andrews and his first job after graduation was at St Andrews ChemTech International, which operated the facility prior to Nexam Chemical. David and three colleagues at ChemTech worked with Nexam Chemical as a client, and as a result of the relationship they developed, Nexam Chemical decided to acquire the site when ChemTech was forced to sell after the 2008 financial crisis.

Three of the ChemTech employees started operating the site as Nexam Chemical and, since then the production and David's responsibility has continuously grown. David's role has gone from being lab chemist to production manager and now site manager.

The last few years have been very busy with production records and constant improvements, which has been exciting.

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”We always strive to improve production to become more efficient.”

– To be able to grow, be increasingly efficient and keep the facility busy at the same time is both interesting and challenging, he says.

Constantly increasing efficiency

Two years ago, the team carried a lean exercise on one of the processes. It made considerable improvement in terms of efficiency, and now they work in a lean way whenever possible. Furthermore, a steadier and more predictable order intake also contributes to a more efficient production.

– We always strive to improve production to become more efficient. The site has seen a continuous development and improvement from the beginning that will continue, according to David.

During 2020, the facility is being expanded as the current production capacity at St Andrews is not considered enough for future orders. Essentially, the plan is to expand by replacing two little used reactors with bigger ones, as well as some more isolation equipment. The current setup has limitations and the new setup will provide more flexibility and contribute to higher security, with alternative manufacturing abilities in case something breaks.

Small team

As the produced volume has gone up constantly and significantly in recent years, the site has hired a few new members of staff. They are now a team of six but the number may grow further this year.

David believes that the reason for such a small team to be able to carry out a development of this caliber over the years, is a that they are working well together.

– We are ensuring that every member of the staff is valued. We are a small team that know each other and the chemistry very well. Everyone is always ready to solve problems, David says.

Bright future

David believes the future is looking bright for Nexam Chemical and especially for Nexam St Andrews.

– The upcoming expansion gives us the confidence that the future is very good. In particular, I believe our products that can support recycling and reuse will be very successful in the future. However, independently of what products Nexam Chemical want to produce, we know that we can to develop new products as well as optimize the production of current ones, says David.

David Milne,
Site manager, Nexam Chemical production facility at Cupar

NEW ACQUISITIONS

Hi, Henrik Bernquist – new Business Development Manager for high performance!

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”Although Nexam Chemical at the moment is a smaller company than I have any experience with, the hope is that the company will be considerably larger soon.”

On April 1st this year, Henrik Bernquist will start as Business Development Manager at Nexam Chemical. Henrik has extensive experience of working with R&D and product management.

He most recently come from Flint Group, where he was product manager for inks. Before that, he worked for a long time within the Perstorp Group, including roles as development engineer and market developer. Henrik is 40 years old, comes from Malmö, lives in Rydebäck and holds a degree as a civil engineer in chemical engineering with polymer specialization from Lund University. His main area of responsibility will be to commercially develop Nexam Chemical’s high-performance range - a mission he is excited about.

– For many years within the Perstorp Group, I have closely and curiously followed Nexam Chemical’s development. It’s going to be fun to to join that journey myself, says Henrik.

He looks forward to the possibility of driving sales globally, and to combine this with R&D and new innovative ways of working.

– I have worked a lot with opportunity development and I bring that toolbox with me to operate the high-performance segment at Nexam Chemical in a structured way, says Henrik.

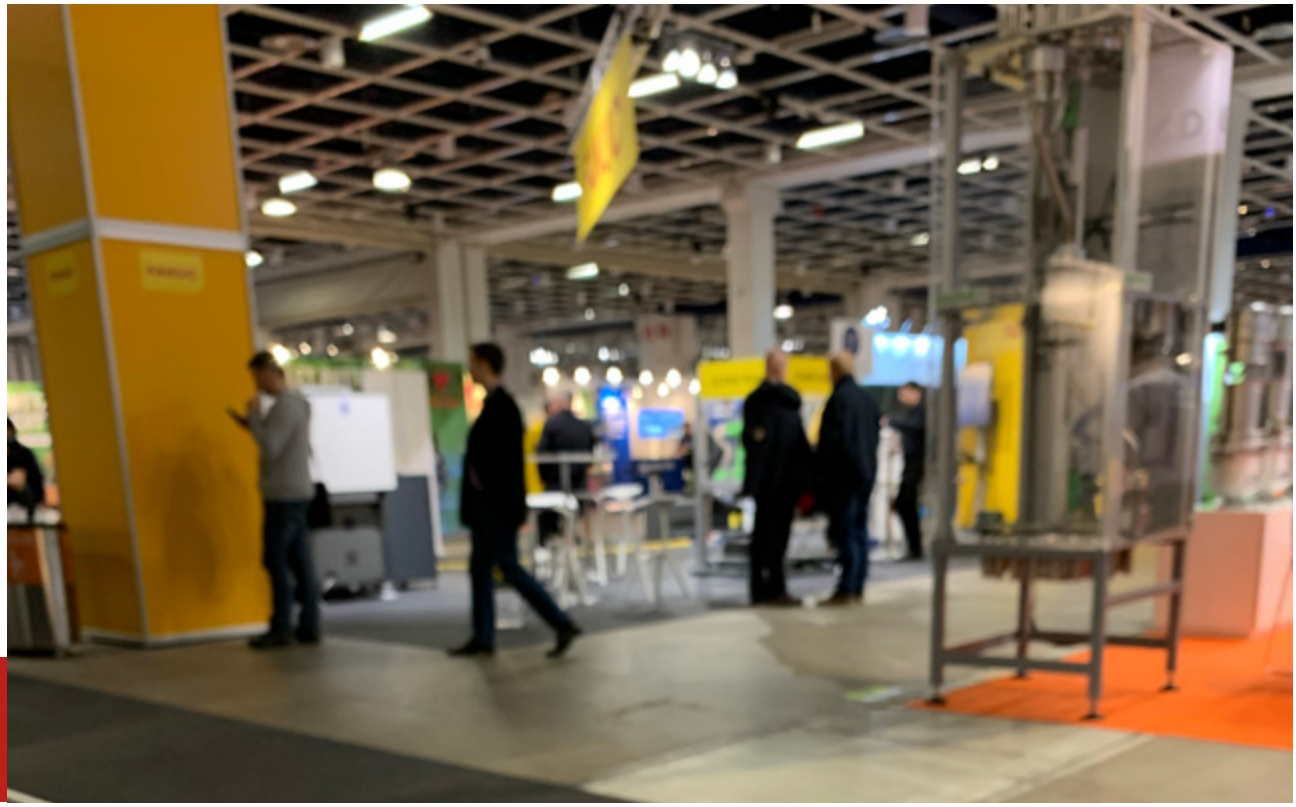
His own driving force is to contribute to the entirety and to set clear goals - and preferably beat them. He is a competitor to the core. He hopes to combine his education and overall experience in chemistry together with his commercial background and driving force, into something successful at Nexam Chemical. One reason why the position attracted Henrik was that it meant that he got to do something new and at the same time go back to what he knows best - the chemistry.

He also looks forward to working in a company where there is opportunity to influence, contribute and change through short decision paths.

– Although Nexam Chemical at the moment is a smaller company than I have any experience with, the hope is that the company will be considerably larger soon. The potential for growth is enormous, says Henrik.

The potential is also one of the reasons why he was attracted to the company, and Henrik believes it lies primarily in Nexam Chemical’s unique product portfolio.

– Nexam Chemical is not a follower - Nexam Chemical drives the development. It’s really exciting, Henrik concludes.



PLASTIC FAIR

Nexam Chemical visit plastic fair in Helsinki

The international trade show Plast Expo Nordic was held in March. For two days, representatives from the plastics industry were gathered in Helsinki. Plast Expo Nordic is held every three years and this time, Nexam Chemical was an exhibitor together with its partner Buratec OY which promotes Nexam Performance Masterbatch in Finland.

For the first time, Plast Expo Nordic was part of a major event with three different areas: Plastexpo, PacTec and FoodTec. In addition to the plastics industry, actors from the food and packaging industry participated. Focus was on creating value chains in these industries – from design to use and from marketing to raw materials. During the trade show, nearly 6 000 visitors and 151 exhibitors participated.

This year's Plast Expo Nordic showed that interest in plastics is still high and many of the discussions were about sustainability, recycling and the innovations making it possible. Nexam Chemical continuously develop new solutions with a focus on recycling of polymeric materials. The trade show clearly showed that the company's products and technologies meet the increased need in these areas.

The fair was held on March 11-12 but was closed somewhat early due to Covid-19.

Calendar 2020

2020-04-17	Annual Report 2019
2020-04-28	Interim Report January-March 2020
2020-05-13	Annual General Meeting 2020
2020-06	Newsletter 2, 2020
2020-07-17	Interim Report January-June 2020
2020-09	Newsletter 3, 2020
2020-10-22	Interim Report January-September 2020
2020-12	Newsletter 4, 2020