PULP DIRECT

The Biofore Company UPM

UPM PULP • CUSTOMER NEWSLETTER

Let's focus on quality!

1/2017

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Fewer fluctuations in production mean a rise in pulp quality

Great quality is everybody's business

UPM RaumaCell has a truly unique offering

Forest-based industry will be a cornerstone of the Finnish bioeconomy

BUILDING BETTER QUALITY

UPM is renowned for taking good care of its mills through major upgrades and continuous improvements. In addition to increasing pulp manufacturing capacity, these mills have also set new quality records.

Quality improvement has involved three main stages: focusing on raw materials, modernising the process and enhancing the ability to measure pulp parameters in real time.

Over 80 per cent of pulp properties derive from the wood raw material. To ensure consistent quality, UPM has sought to further standardise the components and end-properties of its pulp. For example, UPM Conifer softwood pulp has a precise recipe that always includes certain proportions of pine and spruce.

Sami Saarela, Vice President for UPM Pulp Operations in Finland, explains that the company now manages the entire raw material chain more efficiently, from sourcing, harvesting and quality control to timely wood pick-ups.

"We communicate with our wood partners and suppliers to improve their understanding of important factors in pulp manufacturing. In the end, it's all about meeting the requirements of our customers. We never accept wood of inadequate quality, and we must be able to trace all of our wood through every stage to its source and be certain that it comes from responsibly managed forests."

Nowadays our people focus more on making proactive quality observations. Everyone is obliged to act if they see a defective pulp bale.

Sami Saarela, Vice President, UPM Pulp Operations, Finland (right) with **Niklas Nyman**, Production Engineer, pulp drying

THE BUILDING BLOCKS OF QUALITY

FOCUS ON WOOD RAW MATERIAL | **MILL MODERNISATION** | **ONLINE MEASUREMENTS** | **BALE UNIFORMITY**

PROACTIVITY AND PREDICTABILITY

Recent UPM Pulp investment projects have enabled improvements in chipping, fibre line, baling and pulp drying capacity at mills.

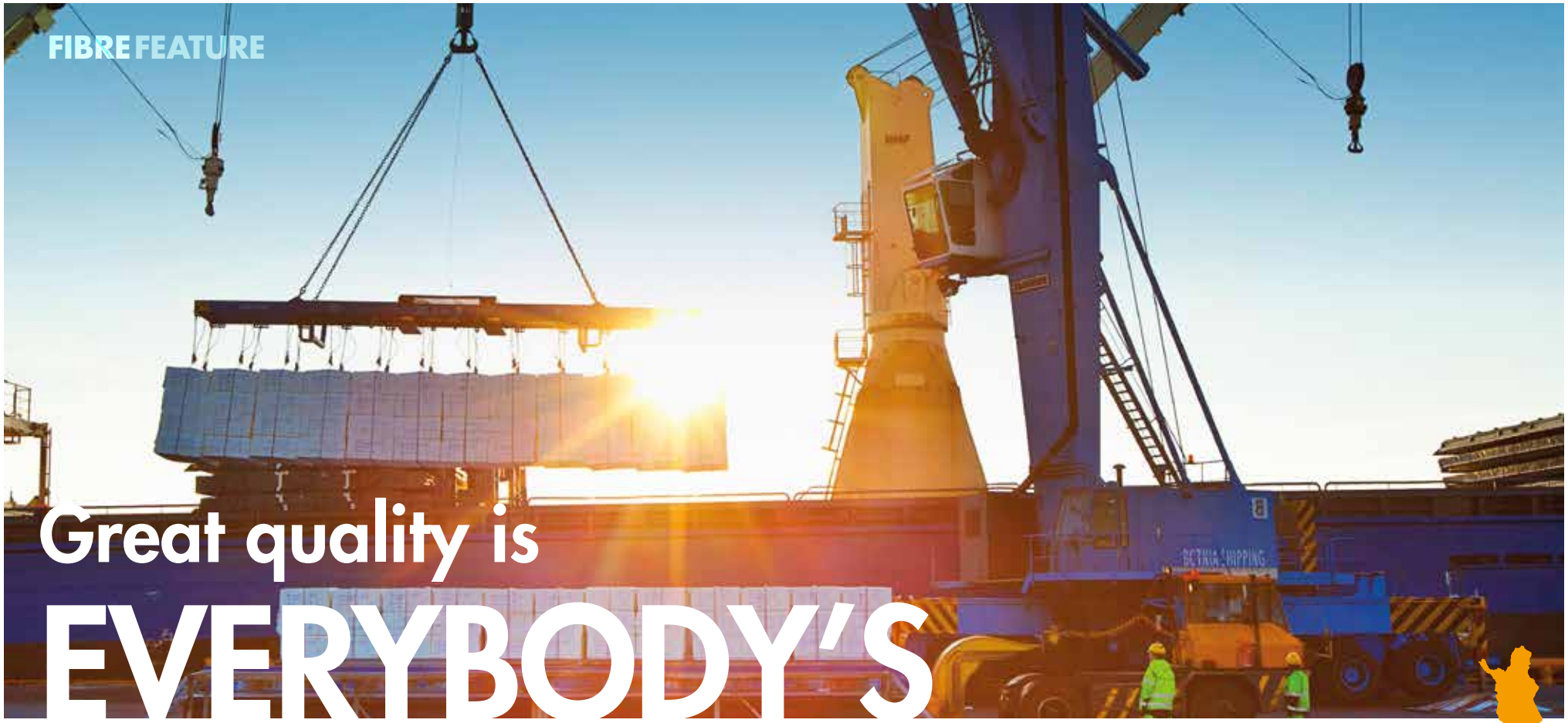
"This modernisation has enabled our mills to improve process stability. Fewer fluctuations in production mean an increase in pulp quality," Sami explains.

The process upgrades also raised a need to revise work practices at mills.

"To achieve higher quality and serve our customers more effectively, we also needed to change our way of working," Sami says. "Nowadays our people focus more on making proactive quality observations. Everyone is obliged to act if they see a defective pulp bale."

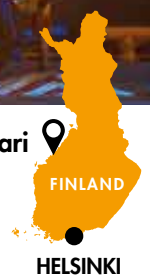
Besides visual inspection, automated process measurements play an important role in minimising quality variations. Ideally the operator knows exactly what kind of quality has been produced, even before the pulp leaves the production line. UPM mills now feature several online measurement points throughout the entire process from chipping to baling.

"Knowing the true properties of our pulp, we can assess the impact of any variations in the process and react accordingly. We can recommend pulps to our customers that are the most suitable for their own products. It's simply good service." ■



Great quality is EVERYBODY'S BUSINESS

The concept of quality is complex and fascinating. Everyone has strong opinions on what quality means to them and their business. Many elements of quality can also be determined with pinpoint accuracy.



PORT OF PIETARSAARI FACTS

- Heavily export-oriented port
- 1,000,000+ tonnes of cargo pass through annually
- Main articles: pulp, timber and paper
- Port operator is part of the larger Euroports group

What is quality? There is no clear-cut and established definition, but quality is often described as perceived value or degree of excellence. It tells us how well a product or service meets our expectations.

So what do customers most value in pulp?

"Each customer naturally views quality from their own perspective: a specific property might be extremely critical to some and quite irrelevant to others," says **Sami Saarela**, Vice President, UPM Pulp Operations in Finland.

Depending on whether you are making paper, tissue, board or specialty papers, you need different characteristics from pulp, but some requirements are common to all uses.

"If we had to identify a single attribute that all of our customers view as a sign of good quality, then it would have to be stability. This is why our goal is to provide customers with no surprises pulp."

Sami explains that UPM achieves stable pulp quality by making several grades to standardised recipes that meet the needs of as many customers as possible. The company also has three equally modern mills that provide mutual support.

"The pulp must be the most suitable option for the customer's end-product in all respects. It has to satisfy all quality parameters as promised," Sami continues.

Customers who know what kind of pulp they will get from a supplier every time can optimise their processes and pulp usage.

"For example Nordic softwood pulp gives strength to your product. Once you know the exact strength values, you can decide how much of this pulp you need without compromising the end product. This is why I think good quality is also about cost optimisation."

FINDING THE RIGHT QUALITY

Every paper, tissue and board machine is different, so there is always a chance that something will go wrong, even with the most dependable pulps.

"No matter how good your pulp is, it might work perfectly at five customer mills but cause problems in the sixth. Here is where our technical customer service comes into play," says **Niklas Keskinen**, Manager, Technical Customer Service, and Product Manager for UPM Betula and UPM Conifer.

UPM provides localised technical expertise in Europe, the Far East and Latin America, supported by its own global R&D network.

"The most effective way to solve a problem is to examine the parameters in the actual environment, which means getting together with customers at their machines. We can then find out what is triggering an anomaly, for example at the wet end of the process."

Great quality is also much more than merely troubleshooting. Niklas describes UPM Pulp's technical service as a bridge between customers and the engineers at their mills.

"Anybody can read the product specifications from a data sheet, but we go beyond the usual jargon. We help our customers especially with refining and in finding the best mix for their furnish."

Correct refining of fibres has a tremendous impact on how well we can secure the benefits of a pulp. Too much or too little fibre refining can result in failure to achieve the target strength, opacity, softness or bulk.

We pursue an active policy of only selling properties that benefit our customers.

Niklas Keskinen, Manager, Technical Customer Service

In addition to several softwood grades, the UPM Pulp portfolio includes two very different hardwood grades: eucalyptus and birch.

"We seek the optimal combination of fibres and precisely the right quality. We pursue an active policy of only selling properties that benefit our customers," Niklas stresses.

BALES DON'T LIE

Perhaps the most concrete manifestation of quality is the two-tonne pulp unit consisting of eight 250-kilogram bales. You don't need to be a technically savvy pulp expert or an ultimate logistics specialist to tell whether a unit is in good condition.

Although the foundation of a high quality pulp bale relies on a careful choice of raw materials and care taken in the pulp making process, transporting the bale to customers around the world has a big impact on its condition.

Handling pulp units is both challenging and forgiving. Unlike many other heavy cargo items – whether carried in bulk or otherwise – the proportions of a unit are essentially a global standard. Planning and stowing pulp becomes a straightforward operation once you know the size of the freighter and its cargo hold.

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PULP SHIPPING TIMES FROM PIETARSAARI, FINLAND TO:

1. Poland: 2.5 days
2. Germany: 3 days
3. The Netherlands: 4 days
4. China: 30 days

Imagine that the unit is a very expensive, high definition television that must be moved into the ship's cargo hold without scratching.

Euroports Pietarsaari Oy Ab's **Pauli Rautiainen**, Operative Director (left) with Foreman **Pasi Sandvik**.

◀ CONTINUED FROM PAGE 2

International Euroports group, the port operator in Pietarsaari on the west coast of Finland, is responsible for stevedoring, forwarding, ship clearance and chartering of pulps manufactured at the UPM Pietarsaari mill.

Just over one million tonnes of cargo pass through this port every year, mostly in the form of pulp and sawn timber from UPM. The Operative Director of Euroports Pietarsaari, **Pauli Rautiainen**, says that they have specialised in preserving the good condition of pulp.

"Numerous factors must be considered, both off and on-board. Pulp is a delicate product that should not be exposed to contaminants such as wood splinters, dirt, plastic, dust or any liquids."

Pulp is transported in the cargo holds of conventional freighters or in separate containers. Although containers keep pulp more secure, they are slower to load and can hold fewer pulp units. When loading into an open top cargo hold, however, stevedores must consider the weather conditions, the cleanliness of the hold and their machinery, and the problem of securing the cargo.

"We train our crane drivers to appreciate the fragility and value of a pulp unit. I tell them to imagine that the unit is a very expensive, high definition television that must be moved into the ship's cargo hold without scratching," Rautiainen explains.

Pulp freighters from Pietarsaari take two and a half days to reach Poland, three days to Germany, four to the Netherlands and seven to ten days to ports in the Mediterranean. The journey to China takes about 30 days. During these voyages the cargo must remain stationary and intact, even in rough seas.

Good planning improves the likelihood that pulp quality will not be compromised in transit. Lifting and moving the units is always a critical task, so a good logistics chain minimises handling.

"We have managed to reduce the time required for lifting units at Pietarsaari. When fresh pulp from the baling line is finally loaded into a ship we have touched the unit only three times with a forklift truck and once with a crane. That is a very minimal handling," Rautiainen points out. ■

50 years of BOUTIQUE **FLUFF PULP** from Rauma

UPM RaumaCell's nearly forty fluff pulp specialists serve the most demanding hygiene and airlaid industry customers with a truly unique offering.

Director **Päivi Vihijärvi** describes UPM RaumaCell as an independent operator under the broad umbrella of UPM.

"Since joining the UPM Pulp business last year, we now have the agility and flexibility of a small independent company while enjoying the support of a forest industry heavyweight."

UPM RaumaCell has a rich history. Founded in 1920 as a pulp mill in the Finnish coastal city of Rauma, the company diversified into fluff pulp in 1967. It then made a dramatic shift in 1991 by terminating in-house pulp cooking to focus on fluff pulp manufacturing using baled pulp sourced from other mills.

This decision delivered a major competitive edge. By handpicking pulps from the market, UPM RaumaCell can precisely tailor its products to customer requirements.

"The fibre in our fluff pulp has been dried twice. This double processing softens the fibre and makes it more flexible, yielding excellent shreddability, runnability and absorption properties. We are the only mill in the world producing fluff this way," Päivi explains.

The annual output capacity of the mill is 150,000 tonnes of exclusive fluff pulp grades for airlaid, baby diapers, sanitary napkins, incontinence products, food and medical industry uses.

CLOSE CO-OPERATION AND SUSTAINABILITY

A passionate pulp veteran, Päivi Vihijärvi says that sustainability has been the mill's top priority for decades.

"Our wood pulp raw material comes from trees that have been sourced from responsibly managed forests. The wood is always controlled and its origin is in no way controversial."

The fully biodegradable fluff pulp is FSC® and PEFC™ certified. The mill also manufactures totally chlorine free (TCF) and unbleached fluff pulps.

Another key characteristic of UPM RaumaCell is a high degree of customer loyalty.

"Most of our customer accounts go way back. We work together closely, developing new products based on consumer trends. This also sets us apart from traditional bulk industry: we are surprisingly close to the consumer in the value chain," Päivi notes. ■

Päivi Vihijärvi, RaumaCell Mill Director (right) with **Tarja Viitanen** Specialist, Export (left)

Meet the fluff pulp specialists at the Index 2017 Exhibition in Geneva on 4–7 April 2017! Come to Hall 2, stand 2141 or view the website at www.upmraumacell.com

VISITOR ZONE

A HUNDRED YEARS OF WELLBEING FROM THE FOREST

Paula Horne
Research Director,
Forest Sector Research Group
Pellervo Economic Research

This year marks the 100th anniversary of Finnish independence. In the first years of the new state's existence, forests formed the basis for developing a largely agrarian society. Around 30 million cubic meters of forests were felled per year, with 20 million cubic meters of this used as firewood. However, wood-processing plants established partly through foreign investment were already gradually starting to create a foundation for growing economic and social wellbeing. Private forest ownership and the creation of jobs in the forest industry brought income directly to the people while business, capital and income taxes swelled the state budget, aiding the development of education and healthcare.

Today –100 years later – the forest industry is still the driving force behind the Finnish export sector and one of the sources of national affluence. In addition to its economic success, Finland tops global studies comparing the state of the environment, happiness and safety, and is one of the leading countries in OECD reports on education. The volume of forests felled has more than doubled compared to the figures from 100 years ago, but the total forested area and the number of protected zones have increased. The volume of wood used directly as an energy source has halved, whereas there is much more processing of wood and its economic benefits to society have multiplied.

The requirements of a circular economy combined with the challenges brought by climate change will further emphasise the sustainable use of renewable raw materials in future years. Forest-based industry will be a cornerstone of the Finnish bioeconomy. As an export-driven industry, it is also a way to meet growing needs on a global level. A growing world population and rising living standards also mean growing demand for fibre, food and energy. Finding socially and ecologically sustainable solutions to these challenges is essential. For example, wood-based products will replace fossil raw materials and cotton.

Finland has come a long way in100 years. Along the way our responsibility for developing our own society has changed to a global, collective responsibility for the wellbeing of the Earth and its population. This is an area in which forests and the forest-based industry have a strong role to play. ■

WHAT'S UP?

All UPM pulp mills certified for food safety

A company-wide management system upgrade has now certified the food safety management systems at all UPM Pulp mills in Finland to the ISO 22000:2005 standard.

This standard was already in place at the company's Fray Bentos mill in Uruguay.

Customers from various segments around the world are increasingly requiring certification. The food safety management system provides the processes and practices necessary to ensure that pulp is safe to use in materials that come into contact with food, hygiene products and tissue papers, and in packaging for toys.

The food safety management system requires the certificate holder to display a high level of practical performance in cleanliness, maintenance and storage. ■

#thatsimpressive

NICE TO MEET YOU

New faces and new ideas at UPM Pulp European Sales

Christine Ritter (right) joined UPM Pulp in January to lead European Sales Support Services and serve as General Manager of the Mannheim sales office.

"Working with UPM pulp customers is our true pleasure. It's walking the Tonnes of Trust talk every day," Christine says.

Lajos Forster (below) will take up the position of UPM Pulp Marketing Director in April, focusing on business development and customer interaction.

"The switch from sales to marketing is highly appealing. I was in charge of setting up the sales organisation in Europe, and now I have a similar role in marketing, coupled with a more strategic approach to the work both internally at UPM and externally with our customers. One of the focus areas of the new team will be gaining a deeper understanding of the needs and issues that affect our customers and other parts of the value chain, so that we can specify our product and service offering accordingly," Lajos says. ■

P.S.

Dear Reader,

Daylight is now returning to the Northern Hemisphere, and the end of winter is approaching. This means a reawakening of nature, with birds, bugs, bees and other forms of life returning to the region in large numbers, some from very far away. According to the Guinness Book of Records, the longest migration flight was achieved by an Arctic Tern *(Sterna Paradiseae)* that travelled 26,000 kilometres to make the journey from Victoria in Southern Australia to Central Finland!

The arrival of spring also has a strong impact on the growth process of trees in the forests, and is direct linked to the quality of our pulps – which was the focus for this issue of Pulp Direct.

We also took the opportunity in this issue to welcome our newest family members at UPM RaumaCell, and to provide a brief introduction to a different business model. I hope you enjoyed our publication.

Best regards,
Tomas

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