walki

Walki Group Customer Magazine **2024**

Cover Stories

EQUIPPED TO ACT

Towards a sustainable future together with Oji

Recyclable secondary packaking for Laïta

Circular thermoformable polymers

INVESTING IN CIRCULARITY · LESS PLASTICS FOR BARRIER LINING

JOINING OJI
Stronger with Oji.

SMART WAREHOUSES
Automatically replenishing the stock.

WHISTLING THE GAME
Walki's Timo Heinonen gets paid for his hobby.

12

NEW PACKAGING FOR CRÊPES
Laîta turned to Walki for fibre-based secondary packaging.

Equipped to act

The European Union has taken on the role as a forerunner when it comes to pushing the world towards a sustainable path. With the Green Deal setting ambitious targets for EU to become climate-neutral by 2050, companies have been introduced to a wide array of regulations. The Packaging and Packaging Waste Regulation, coming into force in 2030, is one of the biggest changes the packaging industry has encountered in decades.

While these regulations come with some challenges, you can also embrace them as a push to innovate.

At Walki, we have chosen the latter approach. We decided early on to put a sustainable world in the heart of our strategy with our mission to accelerate the world's transformation to a circular, resource-efficient and low-carbon future.

Our sustainability agenda is guiding our innovation and business development. It rests on the three pillars of responsible sourcing of raw materials, striving to have all products being recyclable or compostable, and reducing greenhouse gas emissions.

Innovations means charting into new territory which always involves some risk taking, and here EU regulation plays an instrumental role in providing a long-term roadmap. We have done several big investments and upgrades in our plants to equip us to make completely new solutions for a circular future.

While the initial phase of the EU's Green Deal was focused on setting ambitious targets and drafting legislation, we are now entering into a phase that will be all about implementation. This shift is crucial as it translates high-level goals into tangible actions. Our role at Walki is to equip our customers with solutions so that they can embrace a circular and low-carbon future. It's not only regulations that are driving the development towards sustainable solutions. Younger generations across the globe are increasingly demanding brand-owners to act too.

While combating climate change can get entangled in national interests, corporations can be the vehicles to overcome those challenges. As European brand-owners enter new markets, they bring their sustainability stance with them, as Teruyuki Mori from Oji, our new owners, says on page 9. Walki's strong commitment to sustainability and a fibre-based future was indeed one of the main reasons why Japan's leading paper technology company acquired Walki.

Data is playing a pivotal role in today's world. Our sustainability team has gathered data not only from our own operations but also from our value chain. We have adopted new tools and initiatives like the Earthster Life Cycle Assessment tool and Science Based Targets Initiative (SBTi) to equip us with more data to help us make informed decisions when sourcing materials. These insights also come in handy in our product design, as you can read on 11.

Collaboration is indispensable for creating sustainable solutions. We are proud to be part of several big research projects such HICCUPs, an EU-funded project that explores how biogenic CO_2 gained from waste- water can be transformed to polymers. We are happy to lend our state-of-the-art production lines for testing completely novel solutions in these projects.

When reading news these days it's easy to become gloomy about the future. Yet it's important to not fall prey to doom's day predictions. We need to find a balance between finding a sense of urgency to change while maintaining optimism. We are equipped to work for a better future, one day at a time.

Let's do that together!

Leif Frilund
CEO

CONTENTS

COVER STORIES
Publisher
Leif Frilund
Editor-in-Chief
Marina Kurula
Editorial board
Annika Sundell, Pauliina Saari, Kari Salminen, Marko Siltala, Andreas Rothschink, Nikolaus Wolfram
Editorial content and layout
Oddly Oy
Cover photo
iStock
Print
Grano 2024
Change of address
www.walki.com/coverstories/contacts

Climate change: the wicked problem

If we are to solve the big climate change conundrum, cooperation is key. But how do you get eight billion people to cooperate? Turning to game theory might provide some answers.

text Lena Barner-Rasmussen **photo** iStock & Walki

No single discipline has been more successful than the other in defining what we collectively need to do to combat climate change. Taking a multi-disciplinary approach might be more useful.

Professor **Alessandro Tavoni** is one of the researchers who approaches climate change with a wide lens. After an associate professorship at the London School of Economics, he is currently a professor in economics at the Bologna University in Italy. His research focuses on overcoming behavioural and political economy barriers to cooperation in tackling climate change, using a combination of different game theory models and experiments.

Professor Alessandro Tavoni takes a multi-disciplinary approach to climate change.

Game theory is the mathematical framework often used for analysing situations in which the outcomes depend on the actions and interactions of multiple decision-makers. These are referred to as players, and each player has a set of possible strategies upon which they make decisions to maximize their own payoff. That leads us to some of the most common game models in game theory: the tragedy of the commons and more generally games featuring negative externalities. The tragedy of the commons in climate change arises when players; countries, companies or individuals, spew emissions according to their own self-interest while collectively depleting a shared limited resource: the atmosphere. But it's not in anyone's long-term interest for the atmosphere to decline.

"For each ton of CO_2 we pump into the atmosphere, we create a damage that lasts for generations and one that hurts everyone. But those who spew the most are not the ones who bear the cost, and this is what constitutes the negative externality."

The ones paying the most are future generations. So how to solve what economists refer to as a 'wicked problem', meaning that it's a dilemma with multiple players with conflicting wants and needs without a single right answer and no central authority that can force a solution.

"To get all players to cooperate on a global level is the million-dollar question. We need an overarching institution that tries to unify this effort."

Cooperate or coerce

The United Nations Framework Convention on Climate Change (UNFCCC) was the first attempt at a global joint effort to reduce greenhouse emissions. While the Kyoto protocols of 1997 came with mandatory targets for industrialised countries, it was still unsuccessful.

"In the end, too few players took action."

The follow-up in the Paris Agreement of 2015 is different from the Kyoto protocol as it lets countries set their own targets and focuses on global cooperation. This represents a clear shift from a game theoretic point of view where you can either be coerced into cooperating or do it on your own will. The latter has been a more successful strategy.

"The Paris Agreement has been depicted as a great success because almost every country has signed it. But still, it doesn't have a lot of teeth because it's mostly relying on self-imposed targets at the national level."

And it's here where Professor Tavoni sees corporations as important players to transcend those national interests.

"We need the business world to be on board because otherwise we cannot reach the goals of the Paris Agreement. And for business to be on board, you need clear rules for everyone."

This is why Tavoni welcomes EU's efforts to take the global lead in putting relevant legislation in place.

"A big impediment for corporations is policy uncertainty, and here I think the EU is doing well by providing clear rules."

Powerful social norms

But will the rest of the world follow? While a global carbon tax has emerged as a viable solution, and one that Professor Tavoni favours as well, he, as a researcher in behavioural economics, points to social norms as powerful complements to monetary incentives.

"Findings in experimental and behavioural economics show that the majority of humans are conditional cooperators, meaning that we are more willing to do our part if we know that others are committed too."

Another trait is so-called pluralistic ignorance, where we mistakenly believe that others hold a different opinion from our own.

"If we think that nobody else is acting on climate change, we won't do our part either. Climate change is a tricky game because it's you versus eight billion other people. So it's very easy to feel like you don't have agency and whatever you do is not going to make a difference, especially if you think that most people avoid doing their part."

> *Now is a good time to commit and invest in mitigation.*

Then again, humans are preprogrammed to cooperate, and this is something Tavoni thinks we need to act on.

"In our evolutionary past, we have typically interacted in small groups and those groups who were cooperative tended to be more successful. While economic incentives are important for forcing change, social acceptance can be a powerful incentive too."

The good news is that younger generations are typically more sold on solving climate change. These generations are also increasingly entering the boardrooms and other decision-making platforms.

"In the end, in corporations decisions are made by individuals. So, if you can favour behavioural change towards more sustainable practices among individuals, it will show on a larger scale as well."

No endgame

The most important thing is not to succumb to thinking we are in an endgame.

"I see a lot of climate anxiety in my students. We shouldn't be too negative because the threat of impending disaster can be paralysing, ultimately leading to inaction. We should try to imagine ways forward. And on some fronts, we are doing relatively well. Look how the adoption of solar energy is advancing."

Still, it's important to maintain a sense of urgency.

"The longer we indulge in this wait and see game, the more severe the consequences of climate change will be in the future. Now is a good time to commit and invest in mitigation because if we fail, it will be much costlier to adapt to the consequences."

Data for real actions

Without the right data, it's difficult to do the right actions.

text Lena Barner-Rasmussen **photo** Walki

Gathering and managing data is critical to discern where improvements can be made regarding GHG emissions and the sourcing of raw materials. This has been one of the focus areas in Walki's sustainability agenda, where the aim is to help the company implement actions for a circular and low-carbon future.

A key step has been the collection of even more comprehensive greenhouse gas data and the development of GHG gas emission calculations. To comply with the coming EU Corporate Sustainability Due Diligence directive, companies need to account the total GHG emissions from the whole supply chain and reduce the emissions in line with the Paris Agreement.

"We have collaborated with raw material suppliers and transportation companies to obtain more primary data on actual emissions along the value chain", says Walki's Sustainability Director **Pauliina Saari**.

More emission categories have also been added to the Walki's emission inventory to be strictly in line with the established, international guidelines for GHG emission calculations.

"We set GHG emission reduction targets already in the beginning of 2022 but last year, we levelled up by committing to Science Based Targets Initiative validated emission reduction targets."

The Science Based Targets Initiative (SBTi) is a non-profit organisation that maps out science-based targets for clearly defining a pathway for companies to reduce emissions. The targets are considered science-based if they are in line with the latest guidelines of the Paris Agreement.

"Our biggest GHG emissions come from raw material sourcing, which is why we recommend our suppliers to adhere to SBTi as well."

Including the whole supply chain

Walki has also taken the Earthster Life Cycle Assessment tool into use.

"It helps us calculate product-level carbon footprints more accurately. We have built master models that we can roll out to eventually make product-specific calculations for our whole product portfolio", explains Saari.

Carbon footprint data can be provided to customers to give fact-based information on the climate impacts of Walki's products.

"This enables our customers to improve the quality of their GHG emission calculations and helps them to make informed decisions for emission reductions."

Walki's R&D teams will use these product-specific calculations to optimise product specifications from a climate perspective.

"We can explore possible modifications such as minimising a certain layer or trying a new mix of raw materials to see how much GHG reductions we can achieve."

But gathering data just for the sake of it serves no purpose.

"Data is crucial so that we can benchmark, optimise and improve. The real value comes from the actions that we do based on the data", says Pauliina Saari.

"With the help of data it becomes easier to follow GHG emissions", says Pauliina Saari.

Investing in a circular future

Walki continues to futureproof its production facilities to become a full-service provider.

text Lena Barner-Rasmussen **photo** Walki

Walki has 16 plants in eight different countries from which materials are daily dispatched to customers in the food packaging industry, converters, construction companies and steelmakers across all of Europe. Every plant has a distinct role by itself while also playing an important role as part of Walki's total production network focused on answering to customers' demands on timely, high-quality deliveries that meet the stringent requirements on sustainability placed by regulation and end consumers alike.

To make sure that the demands for production output, operational efficiency, product quality, supply reliability and future-proof products are met, Walki is constantly scrutinising this production entity to see where investments are needed. Hence, decisions on new investments and upgrades are continuously made to ensure that Walki can help customers make the transition to a circular future.

While the focus is on taking in use new technologies such as dispersion or bio-films extrusion, Walki is also upgrading existing production lines such as traditional extruders to safeguard capacity for more established technologies.

"We want to be a full-service provider that offers unique value to our customers, which is why we look at our production facilities with a big picture lens," says **Nikolaus Wolfram**, Executive Vice President, Consumer Packaging.

Towards fibre-based materials

The transition to fibre-based materials has been the starting point for a series of investments.

In March 2022, Walki announced the decision to make one of its biggest investments in machines: building a next-generation production line in Valkeakoski, Finland. The 14 MEUR investment answers to the growing demand for fibre-based material with a combination of dispersion and impregnation technology that produces high barrier fibre-based materials with a low carbon footprint.

The investment was designed by Walki's own engineers and built on premises. Inaugurated in June 2023, the production line has now been up and running for over a year, catering to both customers in the construction industry with flame-retardant facings but increasingly also to customers in food packaging.

Kari Salminen, Executive Vice President, Engineered Materials, is pleased with the new production line. Having said that, the first year has been a lot about finetuning as the production line is unique and the first of its kind.

"We designed and built the machine ourselves, so we have to solve everything ourselves too. There is no playbook to turn to. During this first year we have tested different solutions and learnt a lot in the process."

In Walki's plant in Duffel, Belgium, a team of five engineers and operators from Valkeakoski spent a couple of intense weeks setting up a similar production line as in Valkeakoski on which facing laminates for the construction industries are made.

"Having production of facings in place both in Valkeakoski and Duffel makes sense from a logistics point of view but also for ensuring reliability with deliveries. Should there be any production hiccups on one line we can turn to the other," he says.

Glue lamination to reduce plastics

Another multimillion investment was inaugurated this summer as the unique state-of-the-art production line in Steinfurt, Germany, was taken into use. The 6 MEUR investment, called The Bridge, has been tailor-made to a unique multi-functional machine combining and upgrading the existing extruder line with a line for glue lamination and dispersion coating.

Glue lamination is an excellent way to significantly reduce the plastics component in materials without compromising functionality, and is among other things apt for making polyester-free ovenable trays.

"Brand owners are looking into replacing plastic or aluminium trays with more sustainable alternatives. Fibre-based trays made by glue lamination are an excellent option," says Wolfram.

The production line will also do dispersion coating.

"With the investment we are regionally complementing Valkeakoski with dispersion technology. The dispersion coating in Steinfurt differs slightly in terms of application technology and is better suited for barrier board solutions, while Valkeakoski focuses more on flexible packaging. It all plays together," explains Wolfram.

The existing extruder line has also been upgraded as part of the investment.

We can achieve better functionality with less material.

The Bridge was inaugurated in June 2024 with big festivities.

"We are unique in that aside from investing heavily in new technologies, we are also upgrading conventional production lines. The growing volumes justify the investments. Also here, we are clearly differentiating ourselves from our competitors," says Wolfram.

The Bridge is with its width of three metres also the widest on the market, making the materials suitable for most corrugating and converting lines, while also ensuring larger capacity and production output.

"On this new production line, we can achieve better functionality with less material," notes Wolfram.

Unique production hub

In January 2024, a new streamlined production facility for barrier-board packaging was inaugurated in Steinfurt's sister plant in Wroclaw, Poland. In addition to stream-lining the extrusion capabilities, the investment also entailed a sheeting machine, enabling Walki to deliver sheeted board in standard format to other converters.

"In this way, we have freed up capacity in Steinfurt to focus on new applications since more conventional standard products are produced in Wroclaw. Together these two plants will offer a unique full-service production hub for customers in Central and Western Europe," says Wolfram.

While the demand for fibre-based materials is growing fast, there is also demand for circular plastics-based solutions. With new regulations on the way, the demand for bio-compostable films will further increase in applications such as fruit and vegetable bags in supermarkets as well as for waste bags, which is why Walki is investing in new bio-extrusion capabilities in Finland and Spain.

"We see a strong growth in bio-compostable films, driven by consumer trends but also by regulation. With the latest investments we want to further strengthen our leading position in Europe in this segment," says Wolfram.

In July, a new bioextruder was ramped up in Ylöjärvi, Finland, which will cater to customers in the Nordics, further strengthening Walki's solid market position with the *Bioska* products. The decision to invest in two new bio-extruders in Murcia, Spain, has also been made. These will be up and running in the beginning of 2025.

More printing capabilities

Walki has also recently invested in new printing machines in its Pietarsaari plant in Finland as well as in its plant in Jatne, Poland. In addition, Walki has acquired new companies in Säkylä and Vaasa in Finland and in Wendorf, Germany, with focus on printed flexible packaging.

"Having printing capabilities brings us closer to our end customer, that is the brand owner, which is important for discerning what consumers value and want from their packaging," says Wolfram.

The eagerness to invest does not stop here. Hence it was also decided to invest in a new printing set-up in Säkylä, including a new state-of-the-art printing machine.

"We need to keep futureproofing our offering and be on the lookout for what to invest in next," says Kari Salminen.

Apart from consumers trends, Walki keeps a close eye on EU regulation.

"Especially the new European Packaging and Packaging Waste Regulation is an important milestone, which bears enormous potential for Walki on our mission towards a circular economy. It also provides us with a roadmap we can count on when we make investments," says Nikolaus Wolfram. CS

EU is showing the way

For change to happen, someone needs to take the lead. When it comes to combatting climate change, that someone is the EU.

text Lena Barner-Rasmussen **photo** Walki

In the race to mitigate climate change, the European Union (EU) has taken the global lead by setting ambitious targets and implementing comprehensive policies. Through a combination of regulatory measures, economic incentives, and international cooperation, the EU is forging a path toward a more sustainable future, offering a model for other parts of the world to emulate.

The Green Deal is the cornerstone of EU's strategy. A substantial policy initiative unveiled in December 2019, the Green Deal sets the ambitious goal of making Europe the first climate-neutral continent by 2050. To achieve this, the EU has committed to reducing greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. Hence the name 'Fit for 55.'

"While the Green deal constitutes the general action plan to fight and mitigate climate change, the Fit for 55 package maps the preparatory path to meet the targets of the Green Deal," explains **Annika Sundell**, Executive Vice President, Business Development & Innovation and Sustainability.

One of the main building blocks of the Green deal is the Circular Economy Action Plan that aims to foster sustainable resource use by promoting recycling, reducing waste, and extending product lifespans.

Key regulations include the already implemented Single-Use Plastics Directive and the Packaging and Packaging Waste Regulation (PPWR) that will enter into force in fall 2024. The intent of the PPWR is to act on the fact that packaging waste has increased more than 20% during the last 10 years in EU while reuse of packaging has dropped quite dramatically.

"The PPWR is foreseen to be the most significant legislation within packaging during the last 30 years. It will completely transform the industry," says Sundell, adding that regulation is needed.

"We have a packaging waste issue in the EU as well. The industry has waited to get clarity on how the future will unfold and with PPWR we are finally getting it."

The Circular Economy Action Plan extends beyond packaging. On a continent with 286 million motor vehicles on the roads of which around 6,5 million are scrapped to become waste every year, the automotive industry needs to rethink vehicle design to be more circular to facilitate removal of materials and components for reuse and recycling. The End-of-Life Vehicles (ELV) Directive is aiming at this.

The construction industry is also under scrutiny to increase energy efficiency with the Energy Performance of Buildings Directive (EPBD) and the Energy Efficiency Directive (EED).

On top of industry-specific regulations, EU is also forcing companies to be more transparent with the Corporate Sustainability Reporting Directive (CSRD), requiring EU businesses to disclose their environmental and social impacts in a more structured way. The Green Claims Initiative is restraining companies' possibilities for using greenwashing in marketing.

Legislation forces investments

Legislation pushes industries and companies to change their business models and way of working, which means more investments.

"Every change comes with opportunities. EU invests too little in new solutions compared to the US and other countries, and we need more innovation and growth," says Sundell and mentions the EU's research and innovation framework The Horizon Europe program as crucial for funding and advancing sustainable technologies.

Achieving circularity is at the core of Walki's strategy, and the company started to transform its product portfolio several years ago to help customers prepare for this circular future.

Although this transformation comes with a lot of extra work, Sundell welcomes EU's strong and long-term commitment to pushing its member states and companies towards a sustainable path.

"The legislation must be tough as we only have one planet. A lot of industries need to change quite fundamentally if we are to buck the current trend on climate change. We need regulatory measures to create collective action and the regulatory guidelines provide the needed roadmap for investing in future solutions."

EU is paving the way for other parts of the world to follow.

"With regulation comes opportunities too," says Annika Sundell.

The PPWR will completely transform the industry.

Joining forces for a sustainable future

With the acquisition of Walki, Oji wants to globally accelerate the adoption of fibre-based solutions.

text Lena Barner-Rasmussen **photo** Walki

The European Green Deal, launched by the European Commission in December 2019, is one of the most ambitious sustainability initiatives globally. In its wake, several regulations have been or are in the process of being put in place such as the Single-Use Plastics Directive and the Packaging and Packaging Waste Regulation, pushing companies to phase out multi-layer plastics and adopt fibre-based solutions. The rest of the world is following closely how European corporations are navigating this shift, because in a not-so-distant future, other parts of the world are sure to follow.

This paradigm shift from plastics to fibre is especially pronounced in the packaging industry, where consumers are increasingly demanding recyclable solutions.

At Oji, the leading paper products technology company in Japan with a history spanning 150 years, the management has been following the developments on the European market with great interest for several years. Oji provides the packaging sector with films, adhesive labels, paper bags, and cardboard boxes. With an established carton business in Southeast Asia and sustainability embedded in its values and culture, entering the European market where the transition from plastics to fibre-based solution is in full swing was a natural step.

"We want to promote the shift towards fibre-based solutions and Europe is showing us where the global packaging market is heading. In Southeast Asia and Japan we will face the same change that the European market is undergoing now with reducing the use of fossil-based plastics in favour of fibre-based packaging," explains **Teruyuki Mori**, Executive Director at Walki Group.

That is why the company started looking for interesting European companies to acquire and Walki showed up on the radar. The fact that the transition to circular fibre-based solutions is at the heart of Walki's strategy caught Oji's interest.

"Walki has a strong and sincere agenda of helping customers make the switch from plastics to fibre-based solutions. We share that same philosophy," says Teruyuki Mori, adding that Oji was also impressed by Walki's long tradition of innovating in close cooperation with customers.

"This has resulted in a very strong technology knowhow and close relationships with the customers."

Getting inside the head of European brand owners is important as they are transferring their sustainability stance to Asian countries.

Leif Frilund and Teruyuki Mori are looking forward to working together.

"Big European brand owners want to offer the same sustainable packaging in Asia as they are doing in Europe, and with Walki we get a better understanding on what the European customers value."

Stronger R&D

As part of Oji, Walki can expand its R&D in fibre-based technology. The integration of the R&D operations is already well under way in Pietarsaari, Finland. Two of Oji's engineers have relocated to Pietarsaari while five experts are in the process of moving to the Walki headquarters and other plants in Finland. Teruyuki Mori is one of them.

Walki's network of 15 plants in Europe and one in Asia will also be substantially strengthened with Oji's strong foothold in Southeast Asia and India.

Teruyuki Mori, having previously worked for Toyota Group, the company that truly cemented the kaizen attitude of continuous improvement, has upon his visits to several of Walki's plants been impressed by the attitude of always trying to find ways to make things better when it comes to efficiency and safety.

He also appreciates the culture at Walki.

"People are very open minded and ideate freely. There is a strong culture of communication and lean management," says Teruyuki Mori, stressing that Oji wants to preserve that culture.

"We are looking into creating synergies but want everything else to stay the same."

Warehouses that work like a clock

Walki is rolling out a new feature in its vendor management system. Now customers' stocks can be replenished automatically.

text Lena Barner-Rasmussen **photo** Walki

> *Almost as easy as plug and play.*

The new vendor management system has been in place for several months and works like a clock.

Sami Seppälä is happy with the new feature in Walki's vendor management system.

When digitalisation works optimally, you don't really notice anything happening. Things just work like a clock. Walki has a long track record of serving customers through vendor managed inventories (VMI) to make sure things run smoothly.

"In our vendor management system, we have a set-up where we are responsible for automatically replenishing the stock at the customer. The main challenge in the vendor management concept is generally tracking how much stock the customer has," explains **Frank Dahlbacka**, Supply Chain Director.

A new feature in Walki's VMI is currently being rolled out to effortlessly stock up customers' warehouses without them having to do as much as a wink.

"There is much less hassle compared to the old 'make-to-order' way where we start production upon an order from the customers," says Dahlbacka.

The delivery times can become quite long in these cases, especially when the lead time is heavily dependent on the availability of raw materials.

"In many cases Walki keeps raw material in stock in anticipation of customer orders, but sometimes when the customer's demand exceeds the available raw material stock or no such stock exists, the lead time can be several months. With the VMI concept, the customer does not need to mind the lead time as material is available in their own warehouse at all times."

Fully digitalised process

While Walki's vendor management system has worked well, there has still been a need for manually made inventories to get the information on when a new order for replenishment needs to be made.

In line with Walki's commitment to always try to improve on processes, Dahlbacka's team sought a better solution. The result is a fully digitalised process where the customer does not have to do anything.

"By placing RFID tags on the delivered rolls and installing reader gates in the customer's warehouse, we can stay up to date in real-time on the situation and are ready to start producing materials well in advance to deliver the goods exactly when the customer needs them," explains Dahlbacka.

The system has been in use at Sappi's Kirkniemi plant since 2023. The Kirkniemi mill situated in Lohja, Finland, produces high-quality coated papers for heatset offset printing. The plant has a long-standing customer relationship with Walki, who supplies wrapping material used for protecting the paper rolls during transport.

"Before this new vendor management system was implemented, I always had to start my week by checking the situation in our warehouses," explains **Sami Seppälä**, who works as superviser at Sappi Kirkniemi's plant.

As the inventory was done once a week, it was not always up to date either.

"We don't necessarily have the time to check the situation in the warehouse and may run out of wrapping in the middle of the week," he explains.

Plug and play

Setting up the system is almost as easy as 'plug and play'. The readers are stand-alone items with their own SIM cards, so there is no need for software integration.

"Apart from the initial backup checks, all we had to do was to make sure there were electrical sockets nearby and to install the readers," says Seppälä.

Introducing Walki®WICO$_2$ The low-carbon insulation facing

High-quality insulation facings are key if you are looking into futureproofing a construction project with low-carbon materials. Walki's revamped facings do the trick.

text Lena Barner-Rasmussen **photo** Walki

Choosing the right kind of insulation facings is critical for a long-lived building. Facings help maintain a consistent temperature inside the building, reducing the need for heating in the winter and cooling in the summer, which increases the energy efficiency. This makes for a more manageable energy bill while also reducing carbon emissions. Well-designed facings also control moisture levels within walls, ceilings and floors, preventing nasty problems with mould and structural damage.

With EU's 2050 Green Deal Carbon Neutrality Targets, construction companies are under pressure to minimise carbon emissions of buildings. It's no easy task as construction projects usually gobble up a large amount of steel and cement, which are both big emission emitters. And then you need facings, that usually contain aluminium owing to its unique features.

"Aluminium is combining several interesting properties providing a positive impact on gas barrier, fire resistance and dimensional stability. It's very difficult to find another material that could offer all those features. Aluminium typically has a high emission intensity, but there are still ways to minimise its carbon footprint," explains **Olivier Lucas**, Business Line Manager.

"Even small tweaks that could reduce the carbon footprint are welcome as they can make a big difference when accounting for emissions during the whole life cycle of a building."

Walki's R&D, sustainability and sourcing teams joined forces to identify those tweaks to certain parameters with the aim of reducing the facings' carbon footprint without compromising functionality.

The crucial measures were found in the vast amount of data that Walki has been gathering within its greenhouse gas emission calculations that account for emissions from the company's whole supply chain. The data revealed exactly where in the supply chain the emissions are generated.

The teams collaborated closely with the Valkeakoski plant in Finland, where the testing of various low-carbon materials for the new product was done, and with raw materials suppliers to find the optimal combination using the highest quality raw materials with the lowest possible carbon footprint.

The result is called *Walki®WICO$_2$*. It is a long-lasting insulation facing that meets the highest functional standards while having an exceptionally low carbon footprint.

The fact that the final product is manufactured at the highly energy-efficient Valkeakoski plant also helps reduce the total emissions.

"*Walki®WICO$_2$* can reduce the carbon footprint more than 50% compared to the market average, from 800 gCO_2e /m² to 360 gCO_2e /m²*. Thanks to our R&D we have made a facing that offers an exceptionally low embodied carbon while still maintaining all the functional features that you expect from a high-quality facing," concludes Lucas.

*Based on general estimates. Actual results may vary based on specific applications.

> *Walki®WICO$_2$ can reduce the carbon footprint by more than 50%.*

Facings usually contain aluminium. With the right material mix, the carbon footprint can be substantially reduced.

Pancakes served responsibly

For the French dairy cooperative Laïta, responsibility is a key value. It is now manifested in the company's secondary packaging for its popular pancakes.

text Lena Barner-Rasmussen **photo** Laïta

France is the home country of several world-renowned pastries such as croissants and pains au chocolat. Another favourite are the French pancakes, or 'crêpes' as they are called. Paysan Breton is a beloved brand in France, especially in Bretagne, where pancakes are particularly popular. They are sold in supermarkets and come in three flavours: caramel, strawberry and chocolate, and is a perfect snack to sneak into your kids' schoolbags to help them through a long day.

Paysan Breton belongs to Laïta, one of the leading dairy cooperatives in Western France. Responsibility is one of the company values, and something Laïta takes very seriously, which is why the cooperative has sought to significantly improve the recyclability of their packaging.

"We can see from our regularly conducted marketing studies that reducing the use of single-use plastic packaging is increasingly important for our customers. Regulation such as the AGEC in France (banning single-use plastics to promote a circular economy) and the PPWR in the EU are also pushing us to move progressively towards recyclability," says **Mathieu Boulc'h**, Packaging Development & Procurement Manager EVEN / LAITA at Laïta.

The pancakes are individually packed but as one pancake is seldom enough, the crêpes are sold as a bundle of six inside what you call a secondary packaging bag.

"We were looking for a supplier who was able to improve our current paper film secondary packaging solution. We wanted to make a mono-material that was easier to recycle while not compromising on the technical and mechanical properties of our current packaging," says Boulc'h.

While Laïta hadn't worked directly with Walki before, they knew of the company due to its good reputation for barrier board material.

The teams from Laïta and Walki had a successful first meeting, where the two parties quickly found common ground.

> *We were looking for a supplier who was able to improve our current secondary packaging solution.*

"We spent all day together and discussed the project. We had a great team spirit right from the beginning and could sense that we had a real partnership in place," says **Marie Barge**, Business Development Manager at Walki.

Balancing different demands

While the main task of the primary packaging is to keep the food content fresh, the requirements on the material for the secondary packaging are a bit different.

As the bag containing the multiple pancakes becomes quite heavy, the material needs to be sturdy enough to withstand the weight of the pancakes. Yet, you need to find the optimal level because if the paper is too thick, you will lose out on the important sealability aspects.

"You need to find the right balance between paper quality, one that offers an excellent print finishing and the right packaging performance," says Barge.

A material that is too thick may also cause problems on the production line.

"Excellent runnability is very important to consider. Making the switch from a paper/plastic complex to paper should not compromise productivity per minute as production efficiency is of course essential," says Barge, concluding that there is a lot to finetune in a project like this.

"You have to do a lot of testing."

Boulc'h from Laïta agrees.

"For us, there are several criteria that need to be met in order to find the optimal recyclable packaging. There is the economic aspect to consider as the product needs to be affordable. Then we have to take into account that the packaging needs to work on our production lines in our factories. We also need to make sure that the material is suitable for our marketing purposes. On top of this, the packaging needs to comply with both current and future regulations."

For brand owners like Paysan Breton, excellent printability is extremely important to ensure that the product stands out on the packed supermarket shelves.

"As you go into the supermarket, the Paysan Breton crêpes really catch your attention," says Barge who has always been a fan of the pancakes.

Another dealbreaker for Laïta was that the ink used in the printing needed to be water soluble.

"We use water-based inks and varnishes, to get the best fibre yield out of the recycling process," explains Barge.

Finding the right material was a process that took more than two years, starting from the initial contact from Laïta. A good solid relationship has made for a smooth exploration journey, where the two parties worked on getting everything right.

"The project went very well and Walki met all our needs and expectations. We had a very open dialogue throughout the project and were able to resolve every challenge we faced during the process," says Boulc'h.

The Paysan Breton pancakes are a beloved snack in France.

Safety first at Walki Plasbel

Walki Plasbel in Murcia, Spain, has been on quite the safety journey. Since becoming part of the Walki Group, the company has fostered a safety-first mindset and achieved a record of zero-accidents days.

text Isabelle Kliger **photo** Walki

Safety has become much more than a buzzword at Walki Plasbel's plant in Murcia, Spain.

"In the past, our safety culture was very focused on achieving various targets and following legal compliance," says Walki Plasbel's Plant Manager **Alejandro Sotomayor Martinez**, adding that this is common practice in Spain. "But sometimes you end up overlooking the human aspect and the ultimate goal, which should be zero accidents of any kind."

As Walki Plasbel became a part of the Walki Group in 2021, the group's long roots in a safety-first culture with corresponding practices were integrated also in the plant in Murcia.

New safety mindset

As a Spanish family-run business, Plasbel was founded in Murcia in 1998. The company has manufactured sustainable films, specialising in polyethylene (PE) and compostable film extrusion for more than 25 years. Today, Walki Plasbel is one of the leading manufacturers of recycled and compostable bags and flexible packaging in Spain.

One of the first things Walki did after acquiring Plasbel was to audit the Safety culture. In the audit, Walki Plasbel was at level two out of five. The results were analysed, and a two-year action plan was established to help the company achieve the desired level. That was in June, 2021.

A new Safety Team was set up, with members from across the organisation, including the directors of every department. Meanwhile, the Safety Department – previously a one-person operation – was reorganised. **Pedro Ángel Hernández Blanco** joined the company in March 2022 as the new Safety & Continuous Improvement Manager, supported by **Eduardo Peñalver Perez**, Prevention Technician.

Safety Meetings, Safety Observations and Walks

Since then, countless new safety measures have been implemented, including weekly 30-minute Safety Meetings, when all the machines and production lines are brought to a standstill, while the team turns its attention to safety issues.

> *We're never going to rest on our laurels, we always want to keep improving.*

"Stopping the plant is a big deal," comments Hernández. "This is our way of demonstrating that safety truly is our top priority as we don't stop the lines for anything else."

Safety Observations are a new tool that allow employees quickly and easily to submit any risks or ideas for improvements they observe around the plant using the new Safety app that all the workers have access to.

Safety Walks take place regularly with members of the Safety Team and management teams visiting the plant for in-depth conversations with the employees about safety and improvement ideas.

Empowering people

"Our safety culture is all about leveraging the knowledge of our people, empowering them and showing them that their opinions and contributions matter," says Hernández.

"In the future, this kind of employee empowerment will also be used to enhance our continuous improvement processes, as employee feedback is always extremely valuable," adds Sotomayor.

According to an audit carried out in 2023, Walki Plasbel had reached level three and this year's KPIs show even greater progress. The number of accidents has reduced by 50% year-on-year since 2022, and at the time of writing, the plant has racked up over 400 days without any lost-time accidents. Engagement is up, with approximately twice as many Safety Observations and four times more Safety Walks each month so far in 2024 compared with 2023. Walki Plasbel's determination to improve safety has been recognized outside the company too with the Ibermutua mutual health centre giving Walki Plasbel a national safety award. Walki Plasbel was also recognised as the best safety improver in 2023 among Walki's 16 plants.

Weekly Safety meetings are part of the new safety measures.

Always keep improving

Looking to the future, both Sotomayor and Hernández conclude that safety is about continuous improvement.

"In the past, we were happy if we met our targets, but going forward we're never going to rest on our laurels, we always want to keep improving," comments Sotomayor, adding that the mindset of continuous improvement has always been present at Walki and now also at Walki Plasbel.

"We are creating a better organisation, with improved wellbeing and more collaboration," adds Hernández. "It may have started with safety, but, ultimately, what we're doing is changing the culture of our company."

"I'd especially like to take this opportunity to thank Francisco Lucas Esteve, Engineering Director, Pedro Alcaraz, Production Manager, and José Luis Sanguiao, Extrusion Manager. All three have given us all their support and commitment from day one. They were able to adapt very quickly to the change and helped to implement all the actions."

What's up in Valkeakoski?

As Plant Director for Walki's plant in Valkeakoski, it lies on **Janne Ahonen's** shoulders to make sure the plant meets performance targets regarding cost management, budget planning, reporting, managing legal and admin-related requirements and continuous improvement for productivity, quality costs, customer service and safety. In short, he's responsible for everything!

You have been at Walki for more than 10 years during which the company has undergone a big transformation. How has this been seen in your work?
Being part of executing Walki's growth agenda has been awesome. In ten years, the plant in Valkeakoski has managed to double net sales while improving profitability. I'm also pleased about the change in our mindset and culture when it comes to safety. At the plant, we have now gone for more than 1500 days without any accident-related absencies, something we are extremely proud of.

In 2023, Walki made a huge investment in a new production line in Valkeakoski. What does this mean for customers?
Valkeakoski specialises in energy efficient, intelligent multi-layer laminates for building materials, food packaging as well as packaging for steel. We invested 14 MEUR in the new production line to meet the higher demand for sustainable materials but also to increase the total capacity. The new line combines dispersion and impregnation technologies, suitable for creating barriers for recyclable fibre-based materials paper impregnations.

What do you like the most working for Walki?
The best part is my colleagues. I am a native of Valkeakoski and have lived here for over 50 years, so I know many of my colleagues since years back from school or playing football. I also appreciate the strong support from our top management when it comes to making investments.

Tweaked layers for less plastics

The amount of plastics in Walki's barrier lining for corrugated board has been significantly reduced by replacing the PE-layer and downgauging the PET-film.

text Lena Barner-Rasmussen **photo** Walki

Glue lamination is an excellent way to reduce plastics in corrugated board.

A single car is assembled from more than 30 000 different components. The brakes system, transmission lines, fuel pump, air flow sensor and all electrical components to name a few, are shipped from various corners of the world to be assembled in the car factory. Those components can be very precious and hence need to be well protected during transport. Corrugated board with a barrier lining is the ideal solution to protect these parts from humidity, grease and mechanical stress.

Typically, a standard corrugated board is constructed using three paper layers: an outer liner, fluting providing stiffness and stable cushioning, and an inner liner. For special corrugated board like Walki's *Walki®Line Ultra*, where a higher level of barrier properties is required, the outer and inner liner is constructed as a laminate. This laminate consists of a PET film, a PE layer and a paper liner to offer efficient barrier protection against external moisture and mechanical stress.

Although the barrier layers are very thin, 30 000 individual components that need to be protected means that quite a big amount of PET and PE polymers is devoted to shipping all those parts. And that is just for one car. As about 165 000 cars are manufactured in the world each day, this adds to a huge amount of corrugated board boxes lined with plastics. As customers in the automotive industry are keen on minimising their carbon footprint and use of plastics, Walki's innovation team wanted to find a way to make the material using less plastics to help customers comply with the Packaging and Packaging Waste Directive and minimise the use of plastics.

> *We reduced the amount of plastics by 47% in our barrier liner.*

"Even a small tweak to the material could make a big difference," says **Jan-Anders Fagerhed**, Technical Service and Development Manager, Barrier Lining.

Safeguarding properties with glue lamination

Some amount of plastics is needed to provide barrier properties against humidity and grease as well as preventing scratches on the car components, which is why the PET layer is needed. But by replacing the PE layer laminating the layers together with glue lamination, the barrier properties were safeguarded.

"We were able to reduce the amount of plastics by 47% in our barrier liner, while not compromising the demands on the barrier properties," says Fagerhed, adding that by also making the PET film layers thinner the amount of plastics can be further reduced.

And so *Walki®Line Ultra Lite* was launched. The glue used is water-based which further enhances easy recyclability in the paper stream.

Thanks to a new investment in Walki's Steinfurt plant, Walki can now offer *Walki®Line Ultra Lite* in reel widths up to 3 metres. (You can read more on the investment on page 6).

In addition to the automotive industry, *Walki®Line Ultra Lite* is also suitable for other end uses like greasy food content such as biscuits and other bakery products, meat, poultry and fish. CS

Overseeing the lifeline of business operations

text Lena Barner-Rasmussen **photo** Walki

Roksana Kolade grew up in Gdansk, Poland, one of the largest seaports in the Baltic Sea. She used to watch big shipping vessels dock and undock, igniting her interest in logistics. After a long career in supply chain and logistics for global fast-moving consumer brands, today she works as the Head of Supply Chain for Industrial and Consumer Extrusion Coating for Walki in Poland, heading a team of over 50 people spread out across Europe.

What are your responsibilities as Head of Supply Chain?
As this is a completely new function, right now I'm focusing on the strategic parts of setting it up. I'm in charge of building the organisation and supporting the whole supply chain team. Our Supply Chain & Logistics function in Walki is also undergoing a big ERP (Enterprise Resource Planning) implementation and business transformation with what we call our Step UP programme, which keeps me busy.

How did you get interested in logistics?
Growing up in Gdansk I got the chance to observe all port operations, which made me interested in how logistics work. My father had a marine transportation company, so you could also say that my interest in logistics runs in the family! I went on to study economics, specialising in the economics of transportation and logistics. Looking back, it was a great choice!

What is important when working with supply chains?
Supply chains are the lifeline of keeping the business running. We are the link between suppliers, our customers, production and our sales team, which makes proactive communication very important, especially now that there are a lot of changes going on. Agility and resilience are also important as geopolitical instability and other unexpected crisis like the pandemic can force us to change the way we work over night. In addition, there are other big shifts under way with the transition to sustainable materials. This impacts the whole supply chain. We need to report scope 3 emissions and constantly ask ourselves how our supply chains are impacting our sustainability agenda. And then there is digitalisation and AI of course. So you really need to have a continuous improvement mindset!

Speaking of digitalisation, what does the Step UP programme entail?
It's a pivotal change for Walki with many opportunities to streamline our processes and improve efficiency. The Step UP Programme will bring us closer to our customers, helping us to be attentive to their need and respond to them faster. We are also upgrading our ERP to implement more data-driven decisions.

You recently joined Walki. How have you liked it?
I joined Walki because I saw a great opportunity to further develop myself professionally but also because sustainability is close to my heart and it's at the core of the company strategy. I also appreciate the open and relaxed culture at Walki. And then I love my team, they are superagile and fun to work with! CS

Roksana Kolade has always been interested in transportation and logistics.

> *I love my team, they are superagile and fun to work with!*

Tapping into Gen Z: eating on the go with less waste

If you want to get a sneak peak in what the future holds for the packaging industry, eye in what younger people value. Generation Z eats out a lot and wants to get their takeaway food in sustainable packaging.

text Lena Barner-Rasmussen **photo** iStock

Generation Z tends to eat a lot on the go.

Tapping into what Generation Z values and wants is a good way to future-proof your products. This holds especially true when it comes to young people's eating habits, as they tend to go big on dining out: research points to this generation grabbing dinner on the go at least a few times a month due to their busy lifestyles.

Pablo Gomez, a 25-year-old public relations executive living in Barcelona, Spain, is in this sense a typical representant of his generation, leading a hectic life, rushing from work to the gym and social gatherings. He eats a lot of takeaway and also orders delivery food to his home.

Generation Z's love for eating on the go gives rise to a big heap of packaging waste, which is somewhat contradictory as this generation thinks that sustainability issues are one of the top political and economic issues of our times. As does Gomez.

"I order take-away food from different apps several times a week even though I feel bad for causing all that waste. I worry a lot about the future of our planet."

Whenever he can, he will however choose sustainable packaging.

"I order most of my take-away food through apps. Unfortunately they seldom give you the option to choose sustainable packaging. Some of them ask if you want to choose single-use cutlery, and I always choose not to since I tend to eat the food at home. However, when the food arrives and I discover that the packaging is recyclable, I do think it's a good thing."

Paper rather than plastics

Sometimes Gomez will get his take-away food in the supermarket, and in these cases, he says that the packaging solutions does affect his purchasing behaviour.

"If I see two equivalent products and one is packed in plastics and the other one in a paper-based option, I will always choose the non-plastic option."

According to research, consumers are increasingly expressing a willingness to pay more for sustainable packaging solutions. Gomez agrees.

"If the app I order food from gave me an option to make a sustainable choice for a small amount of extra money, I probably would do it if it didn't cost too much," he says.

Still, he is looking mainly at policymakers and brand-owners to take the lead in empowering consumers to make sustainable choices.

"I think there should be a real commitment to sustainability from these types of actors rather than making it the responsibility of the individual consumer. If sustainability is something you can choose to do – or pay extra for – then some people will do it, but a lot of people won't. I think it should be an imperative, not an option." CS

Sustainable fibre-based options for the eating out market

Take away food can stay in its container for up to two days, such as shop-bought sushi and salads. Typically, these plates and trays have been made from either aluminium or plastics, but pushed by regulation and consumer demands, brand owners are increasingly looking for fibre-based alternatives.

There are several ways to maintain the barrier properties also in a fibre-based plate or tray such as dispersion coating or glue lamination, where the plastics component is significantly reduced. Walki has several products in its portfolio:

Walki Pack Tray Range (glue-laminated)

- *Walki® Pack Tray U Brown* – ovenable tray with an ecological brown look
- *Walki® Pack Tray UR Brown* - ovenable tray with release effect avoiding that the food sticks to the tray and ecological brown look

Walki Jazz Range (Dispersion coated)

- *Walki® Jazz* – barrier against humidity
- *Walki® Jazz+* – improved humidity barrier with sealing properties
- *Walki® Jazz@Heat* – ovenable coating with high humidity barrier and sealing properties

Walki Pack N (Dispersion coated)

- Dispersion coating made of natural polymers, without any fossil-based polymers (zero plastics)

Sharing expertise to solve global challenges

Walki is active in several research projects to lend its expertise to the wider good.

text Lena Barner-Rasmussen **photo** iStock

Solving climate change requires significant financial and technological resources. That is why large-scale collaboration between different actors is so important.

"Collaboration enables the pooling of diverse knowledge and resource", says **Annika Sundell**, Executrive Vice President for Innovation, Business Development and Susitainability.

Walki collaborates with different actors. An important group consists of suppliers throughout the value chain, customers, and packaging machine suppliers.

"We have always had a strong culture of innovating together with our customers and suppliers, and this cooperation has only intensified."

Making the switch from plastics to fibre requires that a lot of different actors beyond the value chain share the same goal and work together. This is why Walki decided to become a part of the 4evergreen alliance. It was founded in 2020 to connect industry members from paper and board producers to packaging converters, brand-owners and retailers, material suppliers and waste collectors, and has today more than 100 members.

"To enhance the circularity of fibre-based packaging, it's crucial to agree on the same standards, and here 4evergreen has been instrumental."

From wastewater to polymers

Walki is also active in the EU funded HICCUP project, launched in September 2023. During four years, 12 partners from 7 countries will demonstrate the full value chain as biogenic CO_2 gained from wastewater will be transformed to polymers to be used in the packaging industry. Walki's role is to explore different applications made from PLGA (polylactid-co-glycolid), a polymer with excellent water and gas barrier properties.

"We will produce barriers with PLGA for packaging materials and test it for various criteria, involving experiments with both extrusion and wet coating on fibre substrates to produce coated paper and board."

Walki's extensive network of highly modern production lines is apt for testing research in practice. INN-PRESSME is a joint collaborative network of 27 partners from 9 countries, aiming at developing and implementing a sustainable Open Innovation Test Bed (OITB) to support European companies to scale up their nano-enabled biomaterials and processes.

"Our role is to test-coating biopolymers in full-scale. In these big collaboration projects, we often take on the role to demonstrate that the novel solution really works." CS

> *We have always had a strong culture of innovating together with our network.*

What's up in Folian?

As Sales Manager based at Walki Folian in Germany, **Emanuel Bohl's** role is to ensure that the customers are happy with the products and the service they receive. He started at Folian as an industrial management assistant and has during his 19 years in the company been responsible for the sales back office and team leader for the purchasing department. In the last five years he's been working in the sales department. Emanuel has a degree in business.

What are your main tasks?
My main role is to ensure that the workflow between customers and Walki is smooth, ensuring high customer satisfaction while considering efficiency and production-related issues. To succeed you need to be good at handling various project management related issues and troubleshooting. I also advice our customers and colleagues on recyclable packaging and application technologies which requires close interaction with our purchasing department, the suppliers, and our production.

Folian is now part of the Walki Group. What changes has this brought to your job?
Our portfolio has been expanded with paper and paper-based laminates, as well as digital printing. A big benefit is the access to the vast experience and knowledge in the whole Walki, expanding the pool of experts that can help in coming up with a suitable material.

How does the shift towards recyclability affect your job?
Today, recyclability is the main topic customers want to discuss, such as finding the right material for all different packaging machines. There are a lot of things to consider in addition to recyclability like packaging speed, functionality and price.

What do you enjoy the most about your job?
I really love creating solutions and projects from zero to success.

The food industry needs to find ways to use recyclable polymer packaging solutions for demanding food products like cheese.

Enabling circularity for thermoformable polymers

Making the switch to mono-material recyclable laminates is a complex equation. If you want to be prepared for 2030, now is the time to get started.

text Lena Barner-Rasmusssen **photo** Walki

It might seem like several years from now, yet 2030 will be here before we know it. That is when EU's Packaging and Packaging Waste Regulation is coming into force, stipulating that all packaging must be recyclable.

Making the switch to recyclable flexible packaging is a bit challenging for fresh food with longer shelf lives such as meat, sausages and cheese as they place high demands on the barrier properties of the packaging. After all, almost 20% of all produced food is wasted, accounting to nearly 9% of global CO_2 emissions. Food packaging with compromised barrier properties will only add to that figure.

"We need to find ways to use recyclable polymer packaging solutions for these demanding products," explains **Jonas Skuthälla**, Head of Business Line Flexible Packaging.

The go-to solutions for fresh food have been polymer multilayer structures. But to become fit for recyclability, these multimaterial structures need to be replaced by mono-materials.

A wide portfolio

Although 2030 is six years away, Walki has been innovating together with its network for several years. Walki's flexible packaging offering entails a wide array of recyclable mono-material laminate solutions that cover most needs such as flowpack, stand-up pouches, pillow pouches, top films and lidding films. The latest addition to the family is a recyclable flexible thermoformable baseweb with a top film typically used for packaging meat, sausages, cheese, and bread.

Walki offers its solutions either in polyethylene (PE) or polypropylene (PP). While PE is usually preferred due to its suitability for most recycling facilities and larger aftermarket, PP is a good choice for applications that need to withstand higher temperatures during production and use. Both are easily recyclable and PA-free.

"By choosing mono-material PE or PP, we can make food packaging that can be fully recyclable in the plastics stream without compromising on the core function of the packaging, that is to protect the product and prolong shelf life to ultimately help minimise food waste," says **Håkan Sabel**, R&D Manager.

All films can be printed in flexo and digital or supplied as transparent.

> *We can make food packaging that can be fully recyclable in the plastics stream.*

Collaboration needed

Making the shift to mono-materials may sound straightforward, but in reality there are a lot of boxes that need to be ticked.

"It requires intense collaboration and coordination between the supplier, brand owner and the machinery supplier as the features of the mono-material polymers differ somewhat from the multilayer structures. Some modifications are sometimes needed in the machinery," explains Sabel.

Although the broad outlines of the Packaging and Packaging Waste Directive are clear, there is still unclarity around the final details. According to Sabel and Skuthälla, customers want to be prepared for a circular future but may have difficulties getting started due to the complexity of the transition.

"Our role is not only to be the packaging provider. We also want to be there for our customers to figure out the best future-fit solutions," says Skuthälla.

"If you haven't made any preparations yet, now is the time to get started. It takes some time to prepare for a circular future and 2030 is coming sooner than one might think," adds Sabel.

PE goes fully circular

Walki is taking on the challenge of intensifying circularity for plastics. The work is acknowledged by external actors such as RecyClass.

text Isabelle Kliger **photo** Walki

While the recycling stream for paper is the most well-established one, the plastics ditto is well on its way getting there. Organisations like RecyClass play an important role in providing the needed framework. Backed by Plastics Recyclers Europe association, RecyClass is a non-profit, cross-industry initiative that aims to facilitate the transition towards a circular future for plastics.

Walki's *Lamibel®MDO-PE Laminate Barrier* provides superior protection against gases, moisture, water vapour, and other agents that can damage easily spoiled food and sensitive items like pharmaceuticals and electronics. And now it's proven recyclable too as the barrier packaging material has recently been approved as fully compatible with the flexible polyethylene (PE) recycling stream in Europe, having passed the procedures of the RecyClass Recyclability Assessment Protocol for PE films.

RecyClass seeks to help the plastics industry improve the recyclability of its products, encourage the traceability of plastic waste and promote the use of recycled plastic. It determines the recyclability of a packaging material by the compatibility of its components, as well as their behaviour in given sorting and recycling streams using a series of testing methods.

"RecyClass is setting the standard in the market for recyclability," explains **Juan Ángel Ruiz**, Research & Development Manager at Walki Plasbel in Murcia, Spain, where the newly approved PE-laminate material is made.

Juan Ángel Ruiz is very proud of the Recyclass acknowledgement.

"This certification proves we are living up to the ever-more stringent demands of both the regulators and our customers."

Why mono-materials are key

Typically, multiple layers of different types of plastic have been used to obtain a barrier, making recycling more complicated as the layers had to be separated. In Walki's *Lamibel®MDO-PE Laminate Barrier* film, more than 95% of the structure is made from the same polymer, polyethylene. This makes the material into a mono-material, meaning it can be recycled without separating the layers.

"This innovative laminate not only facilitates the recycling process but also helps to extend the shelf-life of food products, which require protection against oxygen to maintain freshness and quality. It is the first of its kind to be approved by RecyClass," explains Ángel Ruiz, adding that the *Lamibel®MDO-PE Laminate Barrier* requires no changes on the customers' production lines.

"The beauty of this product is that it is now fully recyclable in the plastics stream and yet very effortless for customers to implement as it will run on existing packaging lines with only minor adjustments. It's a reliable solution that is ready to meet the demands of the future."

Walki's *Lamibel®MDO-PE Laminate Barrier* has been deemed fully recylable by RecyClass.

> *This certification proves we are living up to the ever-more stringent demands of both the regulators and our customers.*

Fair play

Most hobbies come with some costs. But for Timo Heinonen, it's the opposite. As a referee in ice hockey games, he gets paid to skate three times a week.

text Lena Barner-Rasmussen **photo** Juha Alamäki

Timo Heinonen (in the center) goes to the ice rink several times a week.

Ice hockey has always been close to **Timo Heinonen's** heart. He played as a child and spent most evenings in the local rink in his native hometown Kajaani in Northern Finland. Then one day, the 16-year-old Timo saw an ad for ice hockey referee training. He decided to take a shot at it and immediately got hooked. Now, some 17 years later, he has officiated in over 700 games.

"I am a competitive person and have always loved the thrill of a good match. Even though I am not on the ice to win anymore, as a referee I still get to experience great moments and watch skilful playing at close range."

Being a linesman in the Finnish league was a fun way to earn money during his years as a student at the Tampere University of Technology where he studied Industrial Management and Information and Knowledge Management.

As he got more and more experience as a linesman, he eventually worked himself up to whistling quite prestigious games in the Finnish league. Matches between old rival teams were the toughest spots, as fans tend to be devoted and the players are under extreme pressure to perform.

"I will never forget games between Tappara and Ilves, both Tampere-based teams, where I was the lineperson. There were more than 7500 devoted fans watching the game and the atmosphere was quite heated. You had to keep your cool and stay confident," he says.

That is one of the most memorable games of his career, as are his experiences from officiating games abroad.

"I've been to Spain to officiate in the students' Olympic hockey games (Universiade) and in Turkey for Men's third division World Championships which was incredibly fun and interesting."

> *We should be open about our mistakes so we can all learn from them.*

Tough decisions

Fresh out of university, Timo accepted an offer from Walki while he continued to climb the ranks in the referee world.

"At one point I needed to make the decision between making a career out of officiating or continue with it as a hobby," he says. He chose the latter and left his position as a linesman in the Finnish league to become a referee for the division for junior players where there is no travelling abroad and less pressure overall, making it easier to fit in with his work at Walki.

Heinonen has officiated in junior games ever since, with small breaks when he has worked abroad, such as a stint in Walki's plants in Duffel, Belgium and in Wroclaw, Poland. Currently he works in Espoo, Finland, as Category Director for Polymer Resins and Films & Logistics.

Keeping fit

During the ice hockey season, stretching from October to April, Heinonen will typically officiate in three games a week.

"It's a good way to keep fit as I have to skate as fast as the players to make sure I see everything that is happening."

Apart from being in excellent physical shape, a good referee needs to be confident and have great communication skills.

"The players will quickly sense if they can sway the referee, and the audience will lose trust in a referee that does not convey confidence. As a referee, you also need to be able to anticipate certain situations and ideally even avert them all together through communication."

But above all, a great referee must have analytical skills and integrity.

"Nothing is either black or white, not on the rink or in real life. That is why it's important to analyse situations and when needed, either stand up for your decisions or question them if you made a bad call."

The same traits that make a good referee have also proven useful in the workplace.

"Being a referee trains you in making decisions in high pressure situations, in which it's inevitable that you make the wrong decision sometimes. We should be open about our mistakes so we can all learn from them," he says.

After all these years in the rink, Heinonen still finds it thrilling to be a referee.

"The referees and linesmen make a tight-knit community and we have lots of fun. And the added bonus is that I get paid for my hobby!"

FACTS

- **Name:** Timo Heinonen
- **Lives:** In Helsinki
- **Motto:** Be curious and learn through listening!

Timo Heinonen's **referee career** *in numbers*

Over **700** games

Over **160** games in the Finnish professional league (SM-liiga)

Cooper result: **3150** metres

Ice hockey

1 An ice hockey game typically consists of three 20-minute periods.

2 Official games have two linesmen and one or two referees. The linesmen are in charge of watching for violations involving offside play at the blue lines and icing.

3 The referee has the overall responsibility to maintain order in the game, making sure rules are followed and assigning penalties when necessary.

Transforming materials towards a circular future

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