AN UNSEEN SPRING • DETERMINED TO CHANGE
Change is in the air

Our mission is straightforward: we want to help the world to accelerate towards a zero-waste future. However, getting there is not always as straightforward. Finding the right solutions is not an easy equation as there are a myriad of factors to take into consideration.

At Walki, we have developed what we call the Zero-Waste Platform to help our customers navigate this complex equation where you have to factor in consumer preferences, production costs, waste-handling infrastructures, and many other things. In this platform (explained in detail on page 8) we have compiled different technologies that can be mixed and matched to find the optimal material for our customers’ needs. In this magazine you can also read about some of the quite revolutionary technologies insus such as dispersion coating and the Earth Coating® concept.

Circularity is key for a zero-waste world. Most of the biowaste in the world is still incinerated. Imagine if it could be put to good use? If composted and collected, we could for instance extract methane from biowaste and use it in vehicles and power our cars in a circular manner.

Circularity is also about efficient use of energy. Our newly acquired plant in Duffel, Belgium, supplies the automotive industry with sustainable skins, helping cars become more energy efficient.

How to make change happen? You often say that end consumers are in the driver’s seat, but I think it’s a joint effort. NGOs play a vital role, as does the media. Brand owners and retailers have the toughest task, squeezed in the middle, trying to balance consumer demands, production technology, legislation, sustainability questions and much more. Walki’s role is to develop the materials that balance all these needs.

This spring change was forced upon us all suddenly, as the COVID-19 pandemic started to sweep through the world. Almost overnight, all of us had to change the way we live and work. We adapted with astonishing speed, and we all got to witness that. We went on despite everything, just in a different way.

Customer demands needed to be tended to despite the odd circumstances: in many ways Walki was an essential operator in the supply chain. One of our customers came with an urgent request: to innovate a material for protective aprons to be used by hospital and health professionals fighting the pandemic. Within a few weeks we had developed a barrier-resistant material that is not only resistant to water and droplets but is also comfortable to wear, an important factor for the people sitting in the frontlines putting in very long hours.

Walki’s Bioska waste bags to the rescue.

A SUPPLEMENTARY PROJECT ON PAGE 22

Change can also spring out from a firm decision. Our colleague Heli Särkelä did just that as she decided to take up a very active lifestyle.

I am convinced that a zero-waste future is not a utopia but very much within reach. What’s needed is the right mix between an outside push and that firm decision to change one’s habits.

Leif Frilund
CEO
COVID-19 turned everything upside down. The world adapted with astonishing speed.

In early January 2020, the world got reports of a strange virus in China. For nearly two months it seemed that it would be contained locally, but in late February, around Easter, Italy became the epicenter of the virus. The virus had gotten a strong foothold in Northern Italy. As the tourists returned to their home countries, many brought the virus with them, and at that point it became clear that the world was grappling with a pandemic. And now we have to get used to doing things in a different way.

Hard-hit countries such as Spain, France and Italy chose strict lockdowns as their combat strategy. Other countries resorted to strong recommendations to practice social distancing and work from home when possible. At Walki, it meant that everyone except for plant staff started working out of their home offices. Strict measures were taken in all plants to protect employees’ safety. Rigorous handwashing and social distancing were vital. Respecting a two-meter distance is a bit of a challenge in a plant environment, but it proved fully possible.

“We changed the working shifts outside the control room from one worker to two. We saw a small amount of people was allowed in the locker rooms at the same time”, says Lena Barner-Rasmussen, Continuous Improvement Manager at Walki.

There was a meticulous disinfection of surfaces: keyboards, rails, buttons, forklifts, even the coffee machines. Walki has always done safety walks in plants to spot areas of improvement. No individual safety walks took place: employees walked by themselves and tried to spot suboptimal habits such as someone standing too close to a colleague.

The result: absences from sickness were actually below the normal throughout spring.

COVID-19 brought with it changes in consumption behavior. As consumers were hindered to visit their local restaurants, the demand for frozen food and ready meals soared through the roof. Fleur and other baking ingredients were also in high demand due to stockpiling.

Online innovation

Food packaging was not the only sector where Walki’s materials were needed. The demand for tear-resistant aprons in health facilities was acute. Nurses, doctors and people taking care of the elderly needed protection, and hence Walki was approached by customers who needed tear-resistant yet light materials for aprons to be used in hospitals and health facilities.

Co-innovating with customers is nothing new at Walki, and it approached by customers who needed tear-resistant aprons. When hospital and health workers wanted better aprons that won’t tear, Walki®Apron 45 was developed successfully with teams working completely remotely. Keto Software’s CEO Veijo Hytti still sees a reason for physical meetings.

“Research shows that digital meetings are efficient in situations where we already know team members and have worked with the people in the meeting. But in situations where you have to solve complex questions and with people you do not know from before, physical meetings tend to lead to a better outcome”.

The one thing COVID-19 showed is that humans are very good at adapting. For years companies and industries have been talking about digitizing operations. Now it happened over night.

“In some organisations, there has been fear that productivity will fall if employees work from home. For those organisations, the corona crisis has perhaps showed that work can go on even though you have less control of how your team spend their working days”, says Kristina Palm, a researcher at the Kungliga Tekniska Högskolan in Stockholm with the digitalized work life as her special field.

Although the Walki®Apron 45 was developed successfully with teams working completely remotely, Keto Software’s CEO Veijo Hytti still sees a reason for physical meetings. "You can work physically apart from your team when working according to rational waterfall models, where everyone knows what to do. But when you need to come up with something completely new, at least I prefer physical meetings."

Palm agrees.

"We saw demand increase for flexible packaging and barrier boards" , he says. Although the Walki®Apron 45 was developed successfully with teams working completely remotely, Keto Software’s CEO Veijo Hytti still sees a reason for physical meetings. "You can work physically apart from your team when working according to rational waterfall models, where everyone knows what to do. But when you need to come up with something completely new, at least I prefer physical meetings."

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“The aprons worn in hospitals need to be comfortable to wear.”

Walki’s extensive material knowledge came in handy when hospital and health workers wanted better aprons in the battle against COVID-19.

Protective gear for the staff is critical to protect the doctors and nurses that tend to the patients infected by COVID-19. The right gear could also hinder the virus from spreading further, such as aprons.

“Walki is known for producing sustainable laminates for a broad range of applications from construction to packaging, and thus possesses extensive material knowledge. So when we were approached with the task of developing a suitable material for single use aprons in hospitals and other healthcare facilities, we accepted the challenge”, explains Bart Vansteenkiste, Business Development Manager, Engineered Materials at Walki.

The demands set on the apron material were stringent. First of all, the material needed to be durable and tear resistant because you do not want the material to be torn during production. Resistance to water and droplets was also important to protect the person wearing the apron. And finally, the aprons needed to be comfortable so that doctors and nurses can go about their work effortlessly.

The material Walki developed, called Walki®Apron 45, is a high-performance extrusion coated polypropylene non-woven suitable for medical applications. “It meets all the requirements: it’s flexible and highly tear-resistant with good barrier properties against water”, explains Vansteenkiste.
WALKI COVER STORIES 2020

SKINS THAT MATTER

You need to take a holistic approach to make cars more sustainable. Walki gives a helping hand by supplying the industry with lightweight and robust skins.

Walki makes coating materials – commonly known as “skins” – for the automotive industry. Just like human skin, which acts as a layer between the body and the outside world, automotive skins deliver a multitude of barrier and structural functions. Lightweight and robust, Walki’s skins help to make the automotive parts in which they are used stronger, lighter, more fuel efficient and sustainable.

Hanzelova explains that Walki’s automotive skins are made from a variety of different layers, or substrates, combined together to offer a unique set of barrier properties such as sound resistance, water resistance, fire resistance and stiffness. They are available in two main product ranges: Walki® Feather Form and Walki® Easy Seal.

Feather Form is a thermo-formable glass veil-reinforced skin that is “light as a feather.” It delivers stiffness and lightweight properties, while simplifying customer production processes and delivering improved health and safety performance.

Easy Seal is a thermo-formable automotive skin that ensures optimal adhesion and excellent mechanical and chemical bonding at a wide range of processing temperatures, acting as an effective acoustic, moisture and gas barrier.

Both types of skin are used in automotive parts ranging from engine covers, hood linings, underbody shields, headliners, wheel arch linings, carpets and trunk load floors, to the inner dash, DVD and parcel shelf. Parts that benefit from Feather Form include the underbody shield, where it acts as an acoustic roadside barrier, protecting the car from damage by providing high-impact resistance. The skin is also flame retardant and provides excellent chemical moisture and oil resistance. Feather Form is also used in the headliner, for improved stiffness, better acoustics and a substantial weight reduction of up to 30 per cent, as well as in trunk load floors, where it provides structure reinforcement, while minimising weight by requiring less glass fibre than other solutions.

Loss weight and noise

As for Easy Seal, it can be used as a carpet backing – especially in EVs, where its excellent adhesion to closed non-woven surfaces, even at low temperatures, combined with acoustic insulation and air tightness – are of particular interest.

“Reducing weight and minimising noise are two of the most pressing challenges for modern car manufacturers,” says Hanzelova, adding that less weight means reduced fuel consumption, which, in turn, cuts emissions and refuelling costs.

“We expect to see a mix of conventional cars, hybrids and EVs dominating the market in the coming years, and Walki’s skins can help improve the environmental performance of all these vehicle types, by reducing weight and deflecting noise,” she explains.

Whereas traditional laminates typically contain two to three layers of polymers and substrates glued together, Walki’s skins are made using extrusion coating. Extrusion coating allows for the full integration of the substrate and the polymer melt, resulting in total adhesion and a stronger end product. It enables up to 13 layers to be combined, each offering a specific set of properties, while the option to use so-called “mono-materials” also facilitates recycling.

Each of Walki’s skins is custom made for a specific customer according to a precisely defined set of criteria. By purchasing one skin instead of several different substrates, Walki’s customers benefit from easier handling, faster production, simple warehousing and an all-round less complex supply chain.

“When we envisage the car of the future, we know it will need to be light, silent, efficient and safe,” concludes Silva.

“Walki’s skins have an important part to play in facilitating this.”

About “Walki Belcoat NV”

Established in 1957, the Belcoat plant in Duffel, Belgium, was initially set up as a paper mill. Over the years, it has produced printing paper, automotive parts, protective apparel, casting paper, building membranes and foam facings. Equipped with three tandem extrusion coating lines, and using more than ten types of polymers and substrates, the plant is a pioneer in extrusion coating and laminating with a diverse portfolio of premium products. The plant was acquired by Walki in 2019. Duffel manufactures products for the automotive industry, as well as protective apparel, building membranes, foam facings, imaging and casting paper.

WALKI COVER STORIES 2020

We expect to see a mix of conventional cars, hybrids and EVs in the coming years, and Walki’s skins can help improve the environmental performance of all these vehicle types.
No waste left behind. A truly circular world is equal to a zero waste future. How to get there requires wise decision-making, the right infrastructure and incentives to act. At Walki, we have compiled our thoughts and solutions in what we refer to as our ‘zero waste future platform’, to make it easier for our customers to chart their path towards sustainable solutions.

The new circular materials need to be as good as the previous ones. No one is prepared to sacrifice food safety. If we don’t pack our food it will lead to an increase of food waste.

Annika Sundell, Executive Vice President, Innovations, Walki

Recyclability for continuous use

There are several technologies for moisture, water vapour and grease.

1. Barrier dispersion technology
   Novel water-based barrier dispersions offers good barriers for water vapour and grease. Walki’s dispersion coatings are heat-sealable and function well in the repulping process helping recycling the fibre more efficiently.

2. Earth Coating®
   It is a plastic reduction technology that offers improved recyclability properties when applied to paper or board. The use of plastic is significantly reduced maintaining the barrier properties and runnability on packaging lines.

3. Monomaterials
   Can be used for replacing multi-layer laminates. Walki’s monomaterials are either laminated or co-extruded and combines the best of properties of materials. It is possible to minimise the material needed to make the end product and enables efficient recycling.

Compostables for industry use and at home

The need for compostable materials depends to a large extent on the underlying circumstances such as local variations in infrastructure and regulation.

1. Food waste management
   What kind of biowaste plant facilities are available in the country?

2. Food contamination
   How meticulous is the sorting of biowaste?

3. Missing recycling infrastructure
   It’s difficult to recycle if there are no collection stations and compost solutions in consumers’ residence building.

Renewable sets the scene for circular

Under Zero Waste Renewables Walki offers two solutions: Walki® Wood and Walki Circular. Both solutions can be used as either coating or film, and all are commercially available.

Walki® Wood
   is your option if you are looking for a completely plant-based solution, that is fiber coated with polyethylene that stems from tall oil.

Walki® Circular
   is based on chemically recycled plastics that can be used as coating or film. The process of chemical recycling, where you break down the post-consumer plastic waste to its smallest molecule to get what is commonly referred to as ‘brown oil’, will make for an important source of recycled plastics in the future, making the plastics as good as the virgin material.

Walki has teamed up with Smart Planet Technologies for Earth Coating®. The license agreement is valid for the European markets and covers seven product application verticals, spanning from board packaging to flexible packaging.

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As consumers are increasingly in the driver’s seat when it comes to steering the world towards a more sustainable path, Walki has decided to follow suit. A new Business Development organization will ensure that Walki can swiftly answer to consumers’ changing demands on packaging.

The new organization, implemented in June 2020 as a part of the Innovation function and supporting the different business areas within Walki, will strengthen innovation and speed up the commercialization of new solutions to end consumers.

“Previously our focus has been on products and material knowhow. Now we are turning things around a little bit and are taking consumers and different end markets as the starting point for innovation,” explains Annika Sundell, who is responsible for the organization.

Andreas Rothschink joined the Business Development organisation in September as Sales Director, Consumer End Users. He says it all starts from getting a deep understanding on what end consumers want from their packaging.

“We know that consumers are more knowledgeable than ever, and that they are increasingly demanding sustainable options. We also know that they want functionality, and that they expect brand owners to react swiftly to their demands.”

Consumers are increasingly into convenient food solutions such as frozen food and snacks. Pouches come out as a strong contender for packaging snaks. According to a recent study by market research company Fortune Business Insights, the market size for stand-up pouches is expected to gain momentum in the coming years. Valued at just over USD 11 billion in 2018, this growing packaging segment is expected to almost double to USD 20.12 billion by 2026, due to its increasing popularity among retailers, consumers and producers. Pouches stand out as the ideal option for packaging snacks that need a long shelf life such as nuts and dried fruit.

Apart from being flexible and lightweight, pouches are often suited to being produced entirely from materials that are recyclable—and sometimes even biodegradable. Pouches are typically also durable and versatile, both of which are important qualities in the packaging industry.

While most pouches are made from combined plastic structures, Walki’s materials are based on special food safe paper. Moreover, they can be printed using high-efficiency flexographic, or “flexo,” printing technology as well as rotogravure and sustainable water-based inks.

Walki has a wide variety of sustainable barrier solutions at its disposal, depending on the individual requirements of each customer.

“With the new organization, the decision on what kind of solution is optimal will start from what consumers want,” says Andreas Rothschink.

Andreas Rothschink: A packaging expert at your service

A keen interest in product development for the packaging industry combined with a passionate sales attitude has taken Andreas Rothschink to be the newly appointed Sales Director for the new Business development organization at Walki. “I am excited about this task because of the consumer focus in combination with starting a business more or less from scratch,” he says.

During his entire career, Rothschink has worked closely with brand owners in the food industry, giving him deep insights into how the mysterious consumer behaves. “The ‘consumer’ can be very fickle and sometimes behaves completely different to what we in the industry have planned. This is what makes my job very interesting. I rely on some of the megatrends in our society such as on-the-go mentality, customisation, and the care for sustainable resources and responsible conduct to understand the consumer. These are all reflected in the packaging needs of our customers, that is, the brand owners who know their consumers very well.”

And how would Rothschink describe himself as a consumer?

“It is obvious that we have to change our behavior as consumers; we have only one world and have to be careful with our resources. I try to buy local products that are in season, and I don’t want unnecessary packaging. This is one of the reasons why I believe in flexible packaging and why I wanted to work for Walki: less material, reduced transport and warehouse.”
For now, we need to sort our biowaste and make sure that none of it ends up in nature. Setting up good practices to collect biowaste is essential to increase the recycling rate. According to a study on EU bio waste, compostable bags as liners for biowaste collection will increase the user-friendliness of the system and hence encourage people to capture their waste.

Handling biowaste in facilities is not always an easy feat though. Sometimes the biowaste bags can get trapped on the production lines and in the shredders. Fast biodegradability of the trash bags helps in this regard.

Walki’s Bioska Plus and Bioska 501 films have been proven to have fast biodegradability (see sidebar). The Walki® Bioska Film 501 packaging films are used for covering magazines, toilet paper and napkins. The Bioska Plus bags are mainly used for holding household biowaste.

“The faster the biodegradability and compostability, the easier it is for the waste-handling facilities to process the material”, says Mariko Päiväniemi, Export Director, Bioplastic Products at Walki.

Both Avellan and Päiväniemi are positive about the future. Harmonized legislation is speeding up biowaste handling processes in Europe, and in certain states in the US, such as California, consumers are very mindful about sorting trashes. Avellan and Päiväniemi also put their trust in our young-siers.

“Today's teenagers are very mindful of these things. The world will change as they take the driver’s seat”, says Jani Avellan, R&D Director, Innovations.

Why fast degradability matters

The research on how biodegradable packaging materials actually behave in marine conditions has been thin. The Finnish Environment Institute (SYKE) decided to look further into the matter and measured the biodegradability of bio-based and biodegradable plastics. Of all materials tested, Walki Plastfol’s BioskaFilm 501 and Plus films turned out to have the fastest biodegradability.

“Within six months, the material was gone when placed in the Baltic Sea”, explains Marko Päiväniemi, Export Director, Bioplastic Products at Walki Plastfol.

The rise of fast biodegradable polymers does not of course mean one should throw trash into the sea or nature. But if it happens, it’s comforting to know that eventually it will biodegrade. However, making sure plastic waste ends up in a bio waste handling plant is a much better option.

Text Lena Barner-Rasmussen, photo Walki
The way people shop is changing. While the need for ready-made, individually packaged meals is increasing, climate-conscious consumers are becoming aware of the need for sustainable, plastic-free packaging solutions. As a result, fibre-based alternatives to plastic are more in demand than ever before. “The high number of single-person households and the increased popularity of convenience products are projected to grow by 2.7 percent per year until 2040, primarily driven by young, employed people, who have no time for cooking, and will often eat the food immediately after buying it. These consumers are typically environmentally and health conscious, seeking out fresh food with a natural, yet eye-catching, look. Easy snacks and meal replacements are not all these consumers are looking for. Sustainable packaging is increasingly on the agenda too. That is where dispersion coating comes in. Easy to recycle Dispersion coating refers to a process whereby a special aqueous barrier coating is applied to a base material to act as a barrier layer against water, water vapour and grease. “It is typically applied to fibre-based materials such as paperboard, paper and liner. Dispersion-coated materials are also compostable and easy to recycle. This makes them the ideal solution for the climate-conscious consumer of today”, explains Mikko Linkala, Walki’s Sales Manager and Product Manager for dispersion consumer packaging. Dispersion coating makes materials using dispersion mainly for folding boxboards, folded trays and paper pouches. Folding boxboards are used in packaging what is referred to as ‘quick service’, also known as fast food or food to go. Think the quick tortilla or pack of French fries you humbly pick up as you pay for gas to make it in time to your kid’s football game. These products are also useful for different catering activities for the airline and transport industries. Pouches are mainly used for packaging snacks with a longer shelf life. Dispersion coating seems the ideal solution for easy recycling of food packaging. Walki has bet heavily on this future technology. According to market research done by Walki, some 59 percent of consumers buy ready-made meal products. Salads and sandwiches are the most popular chilled snack products, followed by smoothies, soups, wraps and sushi. Sales of convenience products are projected to grow by 2.7 percent per year until 2040, primarily driven by young, employed people, who have no time for cooking, and will often eat the food immediately after buying it. These consumers are typically environmentally and health conscious, seeking out fresh food with a natural, yet eye-catching, look. Easy snacks and meal replacements are not all these consumers are looking for. Sustainable packaging is increasingly on the agenda too. That is where dispersion coating comes in. Dispersion coating makes materials using dispersion mainly for folding boxboards, folded trays and paper pouches. Dispersion-coated materials are compostable and easier to recycle, since there is no need to separate the coating from the base material. Dispersion coating can be used on almost all board and paper types. All Walki’s trays are tailor made in close collaboration with the individual food producers and retailers while paying close attention to consumers’ wishes”, says Matthias Zimmermann. Dispersion-coated paperboards, papers and liners are known as ‘readily recyclable materials’ as they can be recycled as they are”, explains Linkala. Changed consumer habits As brand owners seek to minimize plastic usage in packaging, they are looking to dispersion-coated products as one of the most viable alternatives. Market interest in dispersion coating also really started to ramp up in spring 2020, as the COVID-19 pandemic made consumers change their habits, eating a lot more at home since restaurants were closed. The demand for ready-made meals soared. Walki is continuously working to expand the portfolio of applications, including the performance of its dispersion-coated products by developing the barrier properties or adapting them for a longer shelf life. Some dispersion coatings used by Walki are also easy to heat seal, which gives them an advantage over other, similar types of barrier coatings that do not offer heat-sealing properties. As the European Union pursues its objective to phase out traditional plastics, while promoting the use of recyclable, reusable and compostable materials, Walki believes readily recyclable materials have the potential to become a real game-changer. “We envisage that dispersion coating could replace standard plastic-based coatings, such as polyethylene (PE), across a variety of applications, especially for ready-made meals, take-away food and on-the-go food.”
**ONE BIG STEP CLOSER TO A ZERO-WASTE FUTURE**

With the help of Earth Coating technology, packaging becomes easier to recycle without compromising the functionality. That’s good news for a zero-waste future.

The pulping process for traditional plastic coatings separates the plastic from the fibres to form large flakes that are lighter than water. After pulping, pressure-screening systems are used to remove almost all the remaining contaminants. However, light plastic particles may cling to the paper screens, disrupting the paper-making process.

“Depending on the equipment used for re-pulping, the task of separating the fibre and polymer layers can be a real challenge. Earth Coating helps overcome this,” Stefan Erdmann, Technical Service Manager, explains.

**Easier to separate**

Earth Coating® is designed to fracture into small, dense particles in the pulping process, which helps solve the problems that arise when separating paper and polymers.

As modern packaging manufacturers seek further to improve the recyclability of paper or board materials, the potential for Earth Coating® to facilitate recycling and avoid landfill is already drawing attention from across the globe.

Earlier this year, Walki Group entered into a license agreement with California-based materials engineering company Smart Planet Technologies. Going forward, Smart Planet Technologies, which makes innovative environmental composite materials for the packaging industry, will be using Earth Coating® in some of its next-generation environmental packaging products. The license agreement is valid for the European markets and covers a variety of applications, spanning from board packaging to flexible packaging.

**Flexible product**

Earth Coating® is already being used in everything from coffee cups to flexible packaging for sugar, dry food and so on, as well as chilled and frozen food, detergent packaging and barrier linings for corrugated boxes. It can also be used in industrial applications.

“Earth Coating® is extremely versatile and suitable for use in almost any type of plastic, paper and board-based packaging product,” Manfred Ertle, Key Account Manager, Board converting, explains.

**A green boost**

This year, Walki is giving the Walki®Print Media XXL range an additional green boost, with the launch of Walki®Billboard Pro L. This brand-new product features a state-of-the-art ink-receptive layer, combining a polymer and a dedicated dispersion coating, making it suitable for printing with water-based latex ink.

Luk Meys explains that water-based latex ink offers a safer, sustainable alternative to other, more conventional inks typically used for signage and displays.

“Latex ink has emerged in recent years as an increasingly popular technology. This is largely due to its considerable health and environmental benefits.”

Aside from being odourless, water-based latex ink is non-flammable and non-toxic, and requires no special ventilation. Meanwhile, Walki®Billboard Pro L has been designed with the objective to be accepted by the majority of European recycling companies. Being close to a 100 percent mono-material, it can be recycled with pure polypropylene waste streams.

“Given that latex ink is odourless, the product will primarily target the indoor decoration and Point of Sale (POS) market, although it’s equally suited to outdoor applications such as billboards and banners,” says Meys.

**Highest certificate**

World-leading developer of personal systems, printers, and 3D-printing solutions HP is one of the main driving forces behind the rise of latex ink. Earlier this year, Walki®Billboard Pro L was awarded the “Certified for HP Latex Inks” stamp of approval, verifying that it performs to the strictest standards set out by HP.

“Finding the correct settings for printer materials is time-consuming and reduces customer productivity. The certification will enable customers to eliminate the trial and error process, giving those who choose our products a head start,” says Meys.

“This prestigious HP certification will not only provide a reference for our sales teams, it will also dramatically improve confidence in the product throughout the supply chain.”

**The certification will enable customers to eliminate the trial and error process.**

The Walki®Print Media XXL range provides environmentally sound, PVC-free printing and imaging solutions. This year, Walki has taken its sustainability commitment to the next level, converting two of the existing Walki®Print Media XXL products into latex-printable substrates.

The Walki®Print Media XXL was launched in 2017, as an eco-friendly alternative for use in the Out-of-Home (OOH) Advertising sector seeking to phase Polyvinyl chloride (PVC) plastic out of their banners and billboards. PVC has been dubbed the ‘most environmentally damaging of all plastics’ by Greenpeace, explains Luk Meys, Walki’s Global Category Manager, Imaging. “It’s not biodegradable and hard to recycle, and typically gets incinerated or dumped in landfills. As a sustainability frontrunner, it made sense for Walki to seek a green alternative to PVC. The result was the Walki®Print Media XXL range.”

Using ultra-light, tear-resistant recyclable raw materials, Walki®Print Media XXL combines specific base materials and functional polymers. In addition to being completely free of PVC and phthalate, this green print media is 100 percent recyclable. It also weighs less than half as much as traditional PVC products, facilitating transport, storage and handling.

“PVC has been dubbed the ‘most environmentally damaging of all plastics’ by Greenpeace,” explains Manfred Ertle, Key Account Manager, Board converting, Walki. “This is especially true for countries such as the UK and Ireland, where the limited landfill capacity is posing a growing problem,” he notes.

**Less plastic and more recycling**

Earth Coating® is a plastic reduction technology that delivers superior performance and enhanced recyclability for packaging made from paper and paperboard. Earth Coating® is a highly mineralized coating that can be applied whenever a moisture or water vapor barrier is needed. It is denser than standard polyethylene (PE), requiring up to 50 per cent less polymers to be used to achieve the same result. Moreover, it offers significant advantages when it comes to recycling.

“Around the world, legislators and policymakers are increasingly pursuing policies aimed at reducing waste, minimising plastic use and maximising recycling. When it comes to packaging, where a combination of different raw materials, such as fibres and polymers, are typically needed to deliver the needed structure and barrier properties, recycling is not entirely problematic.

“Packaging containing combined materials tends to be difficult to recycle, due to the challenge of separating the components,” explains Manfred Ertle, Key Account Manager, Board converting, Walki. “This is especially true for countries such as the UK and Ireland, where the limited landfill capacity is posing a growing problem,” he notes.

The Walki®Print Media XXL product range provides environmentally sound, PVC-free printing and imaging solutions. This year, Walki has taken its sustainability commitment to the next level, converting two of the existing Walki®Print Media XXL products into latex-printable substrates.
Flame-retardant materials can make a huge difference in grappling with fire safety. That is why it is high up on the agenda, both in academic research and at Walki.

"Fire safety has always been a priority for Walki, but our work intensified in 2017 after the Grenfell Tower fire," says Ukkonen.

The new Walki®Wall Tight FR G A2 flame retardant membrane is based on lacquered aluminium layers laminated with strong glass fabric, attached with flame retardant glue. It is rated Euroclass A2-s1-d0, which verifies that it is non-combustible and compliant with the most recent EU requirements.

Flame-retardant automotive skins

Meanwhile, engineers at Walki are busy developing the next generation of coating materials – or "skins" – for the automotive industry. Walki's skins provide a variety of barrier and structural functions. They are made using extrusion coating, which allows up to 13 layers of substrates and the polymers to be combined, each offering a specific set of properties.

"Polymer is made from oil and are naturally highly flammable. So if you don't add a flame retardant, they will burn very fast," says Peter Van Ginderen, Technical Service and Development Engineer. Walki is working on flame retardant skins for three key automotive applications: the roof panel, differ or DVD; the inner dash, and underbody shield. "Each product is tailor-made and meticulously tested to make sure it complies with both customer demands and specific fire safety standards," says Van Ginderen.

What will flame retardancy look like in the future?

Most modern flame retardant substances contain a combination of potentially hazardous chemicals, such as bromine, phosphorus, or boric acid and various borate compounds. Having recently added phosphorus compounds to its list of critical raw materials, the EU is actively seeking to reduce its dependence on this chemical. At Åbo Akademi University, Professor Wilén and his colleagues are working with industry players, such as Walki, to develop a new generation of flame retardants.

"Each product is tailor-made and meticulously tested to make sure it complies with both customer demands and specific fire safety standards," says Van Ginderen.

What will flame retardancy look like in the future?

Most modern flame retardant substances contain a combination of potentially hazardous chemicals, such as bromine, phosphorus, or boric acid and various borate compounds. Having recently added phosphorus compounds to its list of critical raw materials, the EU is actively seeking to reduce its dependence on this chemical. At Åbo Akademi University, Professor Wilén and his colleagues are working with industry players, such as Walki, to develop a new generation of flame retardants.

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Sustainability is present in all aspects of everyday life at Walki. What counts are real actions.

Sustainability is omnipresent at Walki, from safety and ways of working to the environment, says Markus Siltala, Executive Vice President, Industrial Packaging and Lean Operations. One of the company’s strategic themes is to develop packaging solutions that lead towards a zero-waste future. With this ambitious goal, environmental aspects of sustainability have taken center stage.

“For the zero-waste future to happen, everyone in the company needs to internalize what circular economy and sustainability mean,” Siltala believes that this understanding leads to better communicatations with customers – and this, in turn, leads to new collective innovations.

A good example of this is Walki® Reel Wood, a new wrapping material for paper reels which was developed together with a business partner in 2019. It is based on the Walki® Wood material, that uses tall oil, a side product from pulp production, instead of fossil oil.

“The wrapping is made of 100% renewable raw materials, such as plant-based tall oil and paper, and it reduces the amount of the polymer component by more than 20%. Considering the scale of this market, it’s a great innovation,” says Siltala.

Zero-waste thinking on the plant floor
Sustainability goes beyond the compostable and recyclable solutions manufactured. What goes on in Walki’s plants and offices around the world is equally important.

Leea Häkkinnen, Manager, Management Systems at Walki, explains that improving efficiency is one of the cornerstones of the sustainability efforts at the company.

“When we use materials and energy efficiently and minimize waste, we are both cost-efficient and environmentally friendly.”

The plants in Finland and the one in Steinfurt, Germany have been certified for energy efficiency. However, all plants are using energy in an efficient manner; for instance, the Valkeakoski plant is cooled down with local lake water. Walki’s plant in Haarlem, the Netherlands, has installed solar panels, providing over 1 MW of electricity on a sunny day.

“With the amount of electricity generated in a year you could drive around earth with an electric car 20 times,” says Siltala.

All plants have also switched to LED lights, contributing to a major decrease in energy consumption. Lately, emphasis has been put on minimizing waste. Good results have been reported from the plant in Garstang to name one, where the amount of waste was efficiently reduced by gathering data and identifying the parts of the process where waste was being generated.

Safety is a key part of sustainability
Another important aspect of sustainability at Walki is the safety of the employees. In 2019, there was a 14% decrease in lost-time injuries in the company.

“This is mostly thanks to the employees themselves”, says Siltala. All employees are encouraged to share their safety observations – both point out potential risks and give kudos for a job safely done. All reports are processed, and potentially hazardous environments improved.

“However, it’s not just being potential risks that improves safety. When you are making these observations, you also begin to think actively about how to avoid those risks and change your behaviour”, says Siltala.

With this operations have been running normally during the global COVID-19 pandemic. There are still lessons to be learned from the practices brought on by it.

“For the outbreak, we have had an exceptionally low number of sick leaves. This is thanks to enhanced hygiene measures and social distancing, and I believe we need to learn something from that for the future as well.”

Change needs both people and companies
Companies are getting increasingly interested in sustainable materials, be it new solutions for industrial packaging or finding recyclable and compostable alternatives for plastic in the food industry.

“It’s not just the companies that are making the difference, Häkkinnen notes. “People as well as consumers do, is also important. People often say that they are willing to pay more for sustainable products, but this is often forgotten in the food stores.”

Both Häkkinnen and Siltala believe that change starts with knowledge.

“After all the sustainability training and discussion at Walki, we can see that the employees’ mindset has shifted, also in their time off. When you know more, you start to think more”, says Siltala.

Zero-waste future to happen. Everyone in the company needs to internalize what circular economy and sustainability mean.

What’s my role in the circular economy?
Stay informed. Learn about recycling possibilities in your home country.
Recycle. Reuse the packaging you can and recycle the rest.
Be a conscious consumer. Buy only things you need and choose the sustainable option when possible.

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Heli Särkelä is a self-confessed fitness freak, who works out six times a week. But it wasn’t always this way. Heli admits she was a couch potato before deciding, at the age of 54, to get “fit for 60”.

Despite never having been the sporty type, one day, Heli Särkelä and her husband made the bold decision to join a gym. “We had talked about wanting to get fit but never got around to it. I was the kind of person who would claim I didn’t have time to work out. I would walk the dog but, apart from that, I was essentially a couch potato,” says Heli, who has worked for Walki for eleven years and currently in customer service for the office in Stockholm, Sweden.

But one day, Heli thought the time ripe for change. “At 54, I decided it was time to get fit before turning 60.” Heli went all in and invested in an annual pass at the local gym. However, the fitness bug took a while to bite. “The first year was a struggle,” she recalls. “I wasn’t in good shape and found the gym quite intimidating.”

But then, something changed. Heli started getting to know people at the gym: “I’ve found an amazing group of friends, which has added a social aspect to the workouts, as well as an extra level of motivation,” she explains.

Best investment ever
Heli also invested in a personal trainer, and admits that this was the best decision she ever made. “He pushes me to do things I never thought I could manage,” she continues. “These days, there’s nothing I can’t do – I’m willing to try anything. For example, I never thought I’d enjoy boxing, yet here I am having just bought a brand-new pair of bright red boxing gloves!”

Heli’s enthusiasm for the gym is not shared by her husband, Markku, who has continued to work out once in a while but prefers scale modelling.

“My husband never got into working out the way I did, but he’s so proud and encouraging – and that means the world to me. It would be hard to train six days a week if I didn’t feel supported at home,” Heli says.

Cheerful and alert
Fast-forward three years and Heli has tried just about every activity on offer at her gym, from weights, to fitness classes, boot camps, crossfit, boxing, body combat and running. She has lost weight, even though that was never her principal goal, and feels stronger. Most importantly, having been an insulin-dependent Type 1 Diabetic for more than three decades, Heli’s blood sugar is now at the same level as a person without diabetes.

“I feel positive, cheerful and alert. I sleep well and wake up feeling rested and excited to work out. I’ve become a fitness freak and I’m not ashamed to admit it!” she says.

Unlike many health enthusiasts, Heli is determined never to be judgmental. “Everyone has to do what’s right for them,” she says. “But whenever my friends express an interest in working out, I’m happy to bring them along and show them how things work. I try to inspire others, but would never want anyone to feel inadequate for not exercising as much as I do.”

With just under three years to go before her sixtieth birthday, Heli is in better shape than ever, and more than ready to live up to her target of getting “fit for 60”.

3 tips to help you get off the couch

1. Change your mindset from “I can’t” to “I will try”
2. You’re never too old, and it’s never too late
3. Get a personal trainer – it’s the best investment you will ever make

**FACTS**

- **Name:** Heli Särkelä
- **Age:** 57
- **Lives:** In a house in Södertälje, outside Stockholm, with her husband Markku
- **Hobbies:** Working out of course! And holidays spent relaxing and enjoying nature in Värmland, just across the border from Norway
- **Personal motto:** If it doesn’t challenge you, it won’t change you!
What’s in 90 years?

The origins of our company date back to 1930, when the Paperituote plant was founded in Valkeakoski, Finland. Today, Walki is an international company with operations in twelve countries, employing around 1000 people that together generate an annual turnover of close to 400 MEUR.

How did we get here in 90 years?

It has been a journey where we have constantly tapped into the needs of a changing world.

Today, as the world grapples with a huge waste problem and global warming, our mission is to accelerate the world’s transition towards a zero-waste future and promote energy-efficient materials to a wide range of industries.

At Walki, we believe in a sustainable and circular tomorrow. We want to be the recognized leader in sustainable packaging and engineered material solutions. That is a vision we work towards relentlessly every day, together with our customers.

What will the next 90 years hold?

1930
Walki
The Paperituote plant in Valkeakoski is founded by Rudolf Walldén and production of fibre based packaging materials starts.

The world
Empire State building in New York is finalized.

1964
Walki
Extrusion coating starts in Pietarsaari.

The World
Ford Motor Company launches the first Ford Mustang.

2007
Walki
2007 Investment company CapMan acquires Walki from UPM-Kymmene and a new era as an independent company starts.

The World
Apple releases its first iPhone.

2008
Walki
Walki expands into Eastern Europe with the acquisition of the Jatne plant, followed by the Svetogorsk plant in Russia and the Wroclaw plant in Poland.

The World
A global financial crisis sweeps through the world.

2009
Walki
Walki expands its production of construction facings that support the efforts to save energy consumption in housing through the use of highly efficient insulation materials.

The World
Sony sold 12 million floppy disks in 2009. Production was halted in 2010.

2011
Walki
Walki acquires the Haarlem plant and enters the construction membranes business. These breathable products keeps buildings and homes healthy.

The World
The fantasy series Games of Thrones is released.

2019
Walki
Private equity firm One Equity buys Capman’s stake in Walki. An ambitious growth strategy is implemented.

The World
NASA astronauts Christina Koch and Jessica Meir become the first to complete an all-female spacewalk as they exit the International Space Station to replace a power controller. Koch and Meir were among the 2013 class of NASA astronauts, the first with an equal number of men and women.

Walki
Walki acquires Plastroll in Ylöjärvi, producer of compostable biowaste bags, and Belcoat in Belgium, a producer of highly specialised extrusion coated products for protective clothing, imaging, automotive and other speciality products markets.

The world
For the first time, astronomers releases an image of a black hole.

2020
Walki
Walki enters a more consumer-oriented era.

The world
COVID-19 ravages the world, putting entire countries in lockdowns.