Executive Summary 2019

Walki Group
Sustainability
at Walki
Greetings from the CEO

Growing Walki

The year 2019 has brought new standards to sustainability. The effects of global warming and climate change have been visible throughout the year, and above all, we have also seen strong commitments from individuals, organizations, and governments in combating these globally emerging threats. We at Walki believe that this change is essential and therefore, we try to be at the forefront of it, by doing our share for the global wellbeing.

In 2019, Walki made two successful acquisitions that will strengthen our strategy to provide resource-efficient material solutions to our customers. Walki acquired the Finnish Plactic Oy, a pioneer in composite films and bags. With this acquisition, Walki is taking a step from being a traditional converter towards servicing consumers directly through its Biska and Haukia brands. Walki was also able to welcome Mondi Belcoat NV, a Belgian extrusion coating company, to become a part of the Walki Group. As a result of this acquisition, Walki will be able to expand its customer base and strengthen its position in the highly specialized engineered materials market.

From the beginning of 2020, the Business Area structure will be adjusted in order to integrate the newly acquired units more efficiently. Walki is fundamentally a material science company focusing on two major segments: packaging solutions and engineered materials. The engineered materials segment is concentrating on our Coating- and Lamination activities, whilst the packaging sector's focus is on producing materials for the packaging industry. Presently, the common denominator of these two segments is the extrusion coating and lamination technology.

Walki has identified a number of sustainability-related growth drivers, such as dispersion coated compostable cardboard, which have been generating several new sustainable lightweight solutions as well as energy efficiency. We at Walki believe that this change is essential and therefore, we try to be at the forefront of it, by doing our share for the global wellbeing.

Supporting ambitious energy saving targets

The European Union is planning to cut greenhouse gas emissions by 20% in 2030, generate 20% of energy from renewable sources and achieve a 20% improvement in energy efficiency by the end of this year. This plan sets the general guiding principles for organizations and governments in Europe, although many of them have already implemented even more ambitious objectives in respect of energy efficiency or reduction of emissions.

Walki’s mission is to accelerate the world’s transition into a zero-waste future. We believe the speed of change towards more sustainable future will gradually increase and the emphasis on material choices will grow. Instead of going the flow, we want to accelerate this development with our own actions. This means that we will need to be agile and resilient to be able to correspond to the demands of our customers globally. As an example, housing represents approximately 40% of the energy consumption in the EU. Walki has developed facing solutions that are used in high performance insulation materials, which are improving the energy efficiency of both residential and public buildings. In 2019, the turnover of Walki’s construction materials business increased by more than 30%.

Apart from contributing to the material and energy efficiency of our customers, we want to do our share at Walki, too. Walki’s local plant network in Europe, where our plants are located, is essential in order to reduce the carbon footprint caused by transportation. In addition, Walki has initiated multiple material and energy efficiency projects at its own plants. In this report, two of our pioneering Continuous Improvement projects will be introduced – waste reduction programme at the Garstang plant and energy efficiency programme at the Verkatekniikka and Pietarsaari plants.

Introducing the Zero Waste Future concept

In an attempt to reduce the use of fossil-based single-use plastics, we launched in 2019 a new sustainability offering, called the Zero Waste Future concept. The idea of this new approach is to divide our packaging solutions into three sustainable product families – the renewables, the recyclables and the compostable solutions – to meet the growing demand for a wide variety of new material needs of our customers. This means that we continue to work diligently across our businesses to generate a sustainable, profitable organic growth by providing advanced products in targeted markets.

At Walki, we want the products and services to reflect environmentally responsible values. Walki aims to replace fossil-based polymers with bio-based alternatives, or with materials made of recycled polymers, and in this way contribute to the shift from a linear economy to a circular one. However, although we are ambitious about sustainability, we must be conscious of the fact that the most sustainable solution depends largely on the circumstances and that replacing all plastics with fiber-based materials might not be the right solution in the long run. Some shortage of bio-based raw materials can already be seen, which puts pressure on developing new circular solutions. We also acknowledge that in some situations traditional plastics may have superior features compared to solutions based on renewable raw materials. Therefore, we see innovations and self-development essential for our business.

Currently, there are two hot topics in the circular economy, when it comes to fossil-based plastics: mono-materials and recyclability. In general, mono-materials are easy to recycle mechanically but they might not have the same capabilities as multilayer materials. On the other hand, multilayer materials usually require chemical recycling solutions. Walki is doing fundamental research on chemical recycling in collaboration with SABIC, a global leader in the chemical industry. We believe in circular polymers, as their properties are similar to that of virgin polymers. Following this, they can be used in hygienic products, such as in food packaging, and the availability of raw material is improving. In 2020, Walki will continue its work towards a zero-waste future.

Focus on compliance and safety

During 2019, we have been busy with developing our procedures, especially in terms of sustainable supply chains. We require our suppliers to comply with the same ethical principles as we demand from ourselves. This means that Walki can increase the integrity of its supply chain within the fields of environmental responsibility as well as human and labor rights. Two new tools have been introduced in 2019, Ethixbase which is used for screening Walki’s stakeholder base and the Walki Supplier Handbook that aims to accelerate transparency and sustainability of Walki’s sourcing. In addition, a new web-based learning portal, Walki Academy, was launched in 2019, bringing training on various topics effectively to the reach of all Walki’s employees.

Safety is our number one priority and we believe it starts from everyday choices. Therefore, Walki’s Group Executive Team and top management’s commitment is a crucial part of our safety culture. Safety issues are the first to be discussed in all management meetings and every year our Group Executive Team members conduct safety walks when visiting production plants. In 2019, our Group Executive Team members conducted altogether 85 safety walks. We further encourage our staff to be aware of their working environment and report any safety observations made. In 2019, over 3,500 safety observations and near misses were reported by Walki employees.

Last year, outstanding safety improvements took place at multiple Walki plants. The best improver of 2019 award goes to the Garstang plant in the UK. Hoogstraten went from two Lost Time Accidents (LTA) in 2018 to zero LTAs in 2019. We hope to see similar development taking place also in other plants, leading our way towards the ultimate target of zero accidents. Another wellbeing-related improvement is the exceptionally low absenteeism rate of 2.2%, at the Valkeakoski plant. We consider this to be an outstanding achievement and hope to see similar figures also going forward.

Sustainable tomorrow

As Walki is passionate about sustainability, we also want to encourage others to think forward. In 2018, Walki started The Circular Classroom project as part of its Corporate Social Responsibility program. Now we are delighted to announce that our work with the Circular Classroom is up and running in several schools.

A new decade has begun and brought up new challenges that we have never faced before. We are living in the midst of disruptive forces that are forcing us to challenge our thinking. Nevertheless, we at Walki are looking towards future with bright minds, confident about our solutions and eagerly looking forward to collaborating and innovating together with our clients for a sustainable tomorrow.

Kind regards,
Leif Flund, CEO
Walki Group is a leading international producer of innovative, sustainable engineered materials and protective packaging solutions. Our mission is to accelerate the world’s transition into a zero-waste future. Today, Walki is a material science company specialized in the production of fiber-based, intelligent, sustainable products for markets ranging from energy saving construction facings and membranes to renewable materials for barrier packaging applications. From the beginning of 2020, our three business areas are Industrial Packaging, Consumer Packaging and Engineered Materials, the latter being established by combining the Technical Products business line with the Construction business area.

Walki’s annual net sales in 2019 amounted to EUR 339 million (pro forma) and the company employed approximately 1,000 people. The production facilities are located in Finland, Germany, the Netherlands, Belgium, Poland, the UK, Russia and China. In addition, we have sales offices in Sweden, France, India and Malaysia. The main market areas are in Europe and Asia-Pacific. Walki was founded in 1930, when our first plant in Valkeakoski, Finland was established.

Walki’s main businesses can be divided into two parts, the engineered materials activities, which focus on multi-layer laminates to be used in a wide variety of industries like automotive, construction, steel and protective clothing. The other part is the packaging material business, which has a strong sustainability agenda, offering primarily fossil-free, plant-based products for both packaging of food and industrial goods. Walki is committed to making packaging more circular and we embed sustainability in everything we do. Walki offers tailored solutions that address specific environmental concerns, such as minimizing plastic waste, reducing carbon emissions or enhancing material efficiency. For this purpose, Walki has created the Zero Waste Future concept that offers our customers a wide portfolio of solutions for various needs. These product solutions can be based on renewable raw materials, be recyclable or compostable.

Everything we do is strongly rooted in our extensive knowledge of fibers and polymers. Our manufacture consists of a number of energy-saving, intelligent materials that are used for example in the construction and steel industries, as well as in industrial and consumer packaging. Our expertise in technical laminates and bio-based materials is crucial for developing solutions for flexible packaging applications as well as for barrier board and lining materials used by the solid and corrugated board industry.

Recent years have proved that there is an increasing demand for packaging solutions that address different environmental concerns. New regulation, especially recent development on EU level regulation, and growing consumer pressure are driving forces for a shift to more environmentally friendly options in the packaging sector. Packaging plays a significant role in all manufacturing, regardless of the industry and final product. The volumes produced and used in packaging are significant. While consumers become more and more environmentally savvy, recyclable and renewable packaging grows in popularity. As Walki has a long and good reputation in sustainable packaging industry, we are already the number one choice for many companies looking for sustainable solutions. Our strength is the ability to provide our clients with tailored solutions that are functional, safe and user-friendly. Our business model builds upon innovation and collaboration. Our heritage of customer-driven working method has become increasingly important in the rapid-setting market environment.

Making change happen is about setting your mind to it and finding those who can enable the change. This is where we at Walki can contribute the most. The tone in the discussion about sustainability topics, such as climate change or use of fossil resources, has changed during the last year and today there is a real sense of urgency to it. Making change happen is about setting your mind to it and finding those who can enable the change. This is where we at Walki can contribute the most. We at Walki are looking to the future and see it as our responsibility to actively develop our solutions to better answer the growing sustainability requirements of the public. We understand that different environmental threats require different solutions and hence, Walki offers tailored solutions that address specific environmental concerns, such as minimizing plastic waste, reducing carbon emissions or enhancing material efficiency.
Highlights of the year 2019

14% Improvement in frequency of accidents at work (LTIFR)

90% Of customers visited satisfied with Walki

10% Decrease in water discharges

76% Amount of renewable or other non-fossil energy of total indirect energy use

At Walki, our vision is to be the recognized leader in sustainable packaging and engineered material solutions.

EUR 478 000 Total investments in safety

3561 Number of near misses and safety observations

70% Total purchased electricity coming from renewable or non-fossil sources

97% Recovery of waste

70% of total paper material used was recycled paper

15% Number of near misses and safety observations

1. Recyclable

2. Compostable

3. Renewable

Three ways of boosting sustainability
### Highlights of the year 2019

- **New Walki plants**: 2
- **Walki sites without any accidents in 2019**: 5
- **Safety reports per 100 employees**: 416
- **Test runs in pilot plant scale annually**: 3000
- **Short term absence due to illness rate**: 3.20%
- **Sales of new products of our total sales**: 13.3%
- **Share of suppliers accepted Code of Conduct in relation to total purchase value**: 79%
- **Share of employees completed Walki Code of Conduct training**: 71%
- **Increase in FSC and PEFC certified boards and papers**: 41%
- **FSC & PEFC certified material of total fiber-based material**: 65%
- **Share of suppliers accepted Code of Conduct in relation to total purchase value**: 79%
- **The annual GHG emissions deriving from indirect energy totaled to 27% less when compared market-based indirect energy GHG emissions to location-based indirect energy GHG emissions**: 27%
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Company acquisitions and Zero Waste Future as growth drivers

Broader offering of sustainable packaging solutions through an acquisition of Plastiroll Oy

In May 2019, Walki acquired 100% of the shares in Plastiroll Oy from Sponsor Capital and key personnel of the company. Plastiroll is a Finnish sustainable packaging material producer that is well-established in the Finnish and international packaging market.

Plastiroll is one of Europe’s leading producers and pioneers of compostable bags and films, with more than twenty years of experience in developing and producing compostable films. These products are marketed under the well-known brands, Boka and Hauska. In addition, the company has also coating lines and printing capabilities. With this transaction, Walki significantly broadens its offering of sustainable packaging materials including compostable bags and films as well as recyclable dispersion coated fiber-based packaging, enabling also further international growth.

Acquisition of Mondi Belcoat NV strengthens Walki’s position in engineered materials

To continue with changes in the group structure, Walki acquired 100% of the shares in Mondi Belcoat NV, a Belgian extrusion coating company of Mondi Group in July 2019. Due to competition policy procedures, Belcoat was transferred to Walki in the beginning of October 2019. Belcoat operates a manufacturing facility in Duffel, Belgium.

Belcoat produces highly specialised extrusion coated products serving customers across protective clothing, imaging, automotive and other specialty products market. The acquisition of Belcoat is in line with Walki’s strategy to expand our customer base and to strengthen our position in highly specialised engineered materials.

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Renewable sets the scene for circular

Renewable solutions do not add new carbon dioxide from fossil sources to the atmosphere. Walki’s ambition is to have fully bio-based or circular products without compromising on product performance. Under Zero Waste Renewables we offer 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 an option for those looking for a completely plant-based solution that is fiber material coated with polyethylene stemming from tall oil. We are currently collaborating with several customers and are soon ready for a wider launch.

Walki®Circular is based on chemically recycled plastics that can be used as a coating or a film. The process of chemical recycling where post-consumer plastic waste is broken down into 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.

Recyclable through dispersion

Recycling reduces the use of precious natural resources and turns waste into valuable raw material. The ambition of Walki is maximum recyclability in all major existing recycling streams. The key to success is making recyclability easy for customers. In fact, majority of Walki’s fiber-based products can be and are already recycled and the fibers are recovered.

The Zero Waste Recyclable future is largely based on the possibilities provided by dispersion technology. Walki has developed sealable water-based dispersions that offers good barriers for water vapour and grease. We are working intensely on finding new, advanced dispersions, especially when it comes to water vapour and oxygen barrier.

Walki has also licensed a technology called EarthCoating®. EarthCoating® is a plastic reduction technology that also offers improved recyclability properties. The new technology will help our customers to significantly reduce their plastic usage.

Compostables for industry and home use

Composting is a natural way of returning materials back to the ground. Good composting enriches the soil we all depend upon. We see compostable packaging as a valuable recycling option for certain packaging applications or when there is no infrastructure for recycling in place.

Compostable materials have been a focus area for Walki, and with the Plastiroll acquisition the company broadened its expertise in compostable materials. The need for compostable materials depends to a large extent on the underlying circumstances in countries without sufficient recycling infrastructure. Compostable solutions are particularly important. Further, if the material is very contaminated by food residuals, the optimal solution is composting as recycling is not an option.

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Sustained growth from Industrial Packaging

Walki’s Industrial Packaging business area provides packaging solutions for various businesses. Industrial Packaging solutions are focused on reel packaging and reel wrapping but included until the end of 2019 also a broad selection of technical solutions helping e.g. with protection of industrial products during storage and transportation, as well as providing material for advertising billboards and highly specialized products for the automotive industry. From the beginning of 2020, technical solutions were combined with Construction business area, hence forming a new Engineered Materials business area. At the same time the barrier lining business line, providing barrier materials to conjugated and solid board industries, became part of Industrial Packaging.

When it comes to reel packaging and reel wrapping business, Walki mainly operates in the European and Chinese markets, whereas the technical solutions are sold worldwide. Walki’s Industrial Packaging products are material efficient, light weight, competitive and represent the standard Walki high-quality solutions. During 2019, Walki has collaborated especially with companies within the paper industry and has also come up with a new, fully wood-based reel packaging solution: Walki®Wood.

Recyclability and compostability as booming solutions within Consumer Packaging

It is evident that the packaging business is currently being disrupted and changes require agility from companies. However, changes in the regulatory environment are not seen only as challenges at Walki, as they may also provide us valuable opportunities. Walki’s Consumer Packaging business area often packaging material solutions for the food and retail industry including barrier lining, barrier board and flexible packaging materials. Walki is boasting close collaboration with its customers to innovate pioneering packaging solutions designed to fulfill the specific requirements of our clients. At the end of 2019, Walki entered into a license agreement with Smart Planet Technologies for the use of Earth Coating™ technology to be utilized in a number of next generation sustainable packaging solutions.

Currently, Consumer Packaging business area is focusing on the recyclability and recyclability of packaging materials, as the new Earth Coating™ license also indicates. Further, the company acquisition of the Finnish Plastiroll Oy opened Walki a direct access to end-user business through its Bioska and Hauska compostable films and bags. Walki has also identified the increasing need for turnkey solutions regarding Consumer Packaging applications.

From Construction to Engineered Materials

In the beginning of 2020, we have replaced the previous business area called Construction with the Engineered Materials business area, by combining Technical Products business line with the Construction business area. Now our business areas better correspond to the changes in the group structure due to the two company acquisitions that took place in the previous year.

Walki has extensive knowledge on engineered materials, and its product portfolio covers a number of solutions on membranes and insulation facings as well as industrial laminates for the use of construction and packaging industry. The strengths and growth drivers of our Engineered Materials business area are energy efficient, light weight and flame retardant materials that guarantee safe and functional, high-quality solutions to our customers.

In 2019, the turnover of Walki’s construction materials business increased by 30%. We have recognized a strong demand of solutions that improve the quality and Resilience of buildings. For years, the safety has been a number one priority to our Construction segment. A strong indication of heavy demand of our flame-retardant facings is that the sales of these products has doubled every year for several years in a row. Moreover, we are currently developing a new membrane that minimizes the use of raw materials made out of crude oil.

Bioska 501 and Bioska Plus officially proven as rapidly biodegradable products

In consequence of Walki’s acquisition of Finnish Plastiroll Oy, Walki’s product portfolio expanded with Bioska films that are made of biodegradable polymers. In addition to their biodegradability, Bioska products have been awarded with OK Compost and OK Compost Home certificates that guarantee the compostability of the products in plant conditions as well as at home. Bioska biodegradable and compostable solutions have multiple application opportunities, and they may replace the traditional plastics for instance in films, bags or shopping bags.

Biodegradable polymers are considered as a vital solution in the fight against plastic trash in our oceans but there has been only little research on how biodegradable packaging materials behave in marine conditions. In 2019, the Finnish Environment Institute (SYKE) conducted a year-long study to measure the biodegradability of bio-based and biodegradable polymers to carbon dioxide and water by natural bacteria. According to the study, Walki Plastiroll’s Bioska films were one of the fastest biodegradable plastic.

A variety of different biodegradable films and materials were studied in SYKE’s project, both in field and laboratory tests. Within these studies, SYKE investigated Walki’s new transparent packaging film: Bioska 501 and Bioska Plus that are based on natural polymers. Samples of the material were placed in the Baltic Sea on the southwest coast of Finland for 6 or 12 months. The study found that the Bioska films biodegraded the fastest: there was nothing left of the material after six months of soaking the materials in the sea. Apart from the chemical compound, the thin structure of the Bioska film contributed to the material’s quick biodegradability. Further laboratory tests confirmed the results received from the field – Bioska films biodegraded rapidly even in laboratory conditions.

As the EU regulation regarding single-use plastics is changing in the upcoming years, the recent test results of Walki Plastiroll’s Bioska products are very promising for natural polymers. Walki is very well prepared to help its clients with regards to shift from conventional plastics to bio-based alternatives.