

KUUSAKOSKI

A hand holding a tangled mass of copper strips against a dark background with copper shavings.

ANNUAL REPORT 2022

COPPER!

DEMAND FOR RECYCLED COPPER
IS GROWING – NEW COPPER CENTRE
IN HEINOLA SEIZES THE OPPORTUNITY

CARBON NEUTRAL BY 2035

KUUSAKOSKI SETS
LONG-TERM CLIMATE TARGETS

223 REASONS TO CELEBRATE

ANNIVERSARIES IN THE
RECYCLING AND FOUNDRY
BUSINESS GROUPS



THE FUTURE LOOKS LIKE THIS

Energy flowing through copper cables keeps the rapidly electrifying world running. We run a recycling business that restores value to copper-containing scrap and other metal fractions. Our products help customers reduce the carbon dioxide emissions and other environmental impacts of their own production.

In 2022, the emissions avoided thanks to our operations and products, our carbon handprint, was 1.36 million tonnes of CO₂e. This roughly corresponds to the annual emissions of

500,000

passenger cars.

**RESTORING VALUE**

12

Northern Europe's largest integrated recycling plant invests in copper processing.

Dear Reader!

You are holding in your hands the 2022 Annual Report for the Kuusakoski Group. Inside you will find a thematic section and an annual review of the Group's operations, as well as an extensive Sustainability Report. We hope you enjoy it!!



20 First vehicle crushing plant in Finland turns 50.



28 KiMuRa project receives 2022 Wind Power Act of the Year award.

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Kuusakoski Group comprises the recycling company Kuusakoski Oy, the foundry company Alteams Oy, and the property companies Jokirantakiinteistöt Oy and Kiinteistö Oy Lahden Norokatu 5. The parent company of Kuusakoski Group is Kuusakoski Group Oy, which is owned in its entirety by the Kuusakoski family.

KUUSAKOSKI ANNUAL REPORT

Editorial team: Mainostoimisto Queens Oy and countless Kuusakoski employees around the world.

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I am most satisfied with the good feedback from our employees, as well as their wellbeing and high level of motivation.



FULL SPEED AHEAD AMID CHANGES

The year 2022 was above all one of renewal and preparing for growth. Kuusakoski Group operates at the forefront of sustainable development. Mitigating the climate crisis, the electrification of society and the scarcity of resources and energy are all global megatrends whose solutions will create growth far into the future. We strongly believe in the role of both Kuusakoski divisions – the recycling business group and the foundry business group – as enablers of the green transition. We want to boldly seize these growth opportunities and ensure our competitiveness in the coming years as well. The green transition investment program that we launched in the autumn is a concrete step towards our mission of being a responsible pioneer in the circular economy.

The past year was also one of extreme changes that had immediate effects on the operating environment. The last remaining restrictions of the coronavirus pandemic were being abolished at the beginning of the year and society was liberating when Russia attacked Ukraine. The positive atmosphere quickly darkened and put our core values in jeopardy. The war on Europe's borderlands affects us all, and the desire to support and help Ukraine has been palpable. We donated 200,000 euros to humanitarian aid in Ukraine. In addition to the company, Kuusakoski employees are also actively involved in various projects to support and help Ukrainians.

With the war, the inflation that was already looming accelerated to figures that have not been seen for decades. Global commodity prices were very volatile, and metal prices in particular increased rapidly in the spring – only to fall just as quickly during the summer. Concern about the sufficiency of energy and its high price affected costs, the operations of our customers and energy supply chains. We managed to expertly navigate these

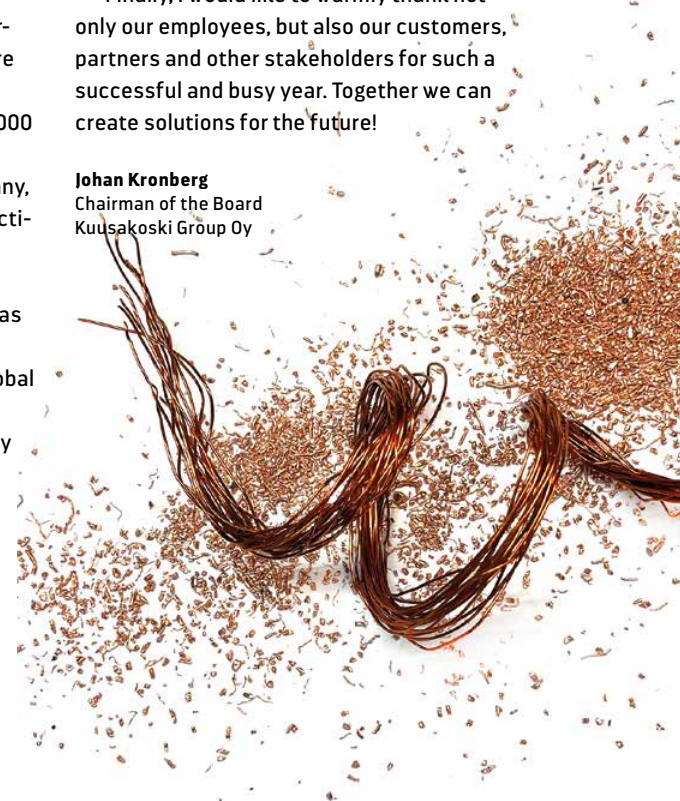
challenges, and most importantly, we were able to serve our customers well in these challenging circumstances. As proof of this, we were able to increase the Group's revenues. Our financial result was in fact one of the best in recent years.

Sustainability has always been at the heart of our business culture. We want to continuously develop our operations in this field. Last year, we took many significant steps forward, set ambitious climate goals and built even more sustainable value chains with our customers. In addition, occupational safety developed positively, while the environmental impacts of our own operations decreased. We also invested in management processes, good governance and sustainability reporting.

However, I am most satisfied with the good feedback from our employees, as well as their wellbeing and high level of motivation. The implementation of our strategy requires good collaboration and the effort of each one of us to be successful. Our excellent results in occupational wellbeing and job satisfaction surveys indicate that we are on the right path.

Finally, I would like to warmly thank not only our employees, but also our customers, partners and other stakeholders for such a successful and busy year. Together we can create solutions for the future!

Johan Kronberg
Chairman of the Board
Kuusakoski Group Oy



RECYCLING BUSINESS GROUP PREPARES FOR THE FUTURE BY INVESTING

The year 2022 will go down in history as a year when companies were forced to re-evaluate their risk assessments, and challenges brought by war had to be weighed in day-to-day operations. Kuusakoski Recycling had an excellent start to the year, but following Russia's invasion of Ukraine, uncertainty among our customers increased significantly. This also had an impact on us. At the same time, the markets clearly communicated the importance and progress of the green transition. Relying on this, we systematically continued our investment program, the goal of which is to create the ability to respond to future changes in terms of both production and quality.

Our investment program is aimed at increasing capacity, better material yields, and purer end products, i.e. recycled raw materials. For example, a modern recycling facility for aluminium and copper-containing materials will be completed this year in Heinola. The facility will be unique in Finland. The value of this investment alone is more than 7 million euros. After gaining good experience in the operation of a similar facility in Sweden over the past few years, we decided to build a corresponding capability to serve the Finnish market as well.

Our investments in producing top-quality recycled raw materials will continue in the coming years as well. This will guarantee the most versatile and environmentally friendly development of metal recycling in our industry. As a company, we are in a significant position to create a more sustainable future. The emission savings achieved by our products, our carbon handprint, is more than ten times compared to the emissions we produce, our carbon footprint. Recycled raw materials are part of the green solution and also enable more sustainable business for our customers.

Our customers need even more information about the benefits of recycling. During the year, we calculated the carbon footprints for our main products, recycled metal raw materials and metal alloys, and created a dynamic calculator to support customers. Our goal is to serve our customers even better in the future by introducing utilisation, recycling and environmental efficiency calculations as part of our digital services.

We also want to stand out from the competition in terms of sustainability. We offer customers verified information about the impacts of our own operations throughout the entire supply chain. For recycling service customers, this means not only efficient and competitive recycling, but also product- or customer-specific information on recycling and utilisation rates, as well as climate impacts.

Our investments in a successful Kuusakoski will continue to be strong also in the future.

Mikko Kuusilehto
CEO
Kuosakoski Oy

Recycled raw materials are part of the green solution and also enable more sustainable business for our customers.

FOUNDRY BUSINESS GROUP BOOSTED BY ELECTRIFICATION AND DIGITALISATION OF SOCIETY



Despite the war and Europe's weakened competitiveness, the "Made outside China" trend is still strong.

Alteams enjoyed another good year in 2022. This is particularly satisfying, as we have worked hard to bring about this change after several challenging years.

Logistics and availability problems had a strong impact on customer demand in 2022. For example, the global shortage of microchips caused problems for our customers, which also affected us. Considering this, the overall strong demand on an annual basis surprised us positively. Strategically good locations, agile local organisations, reliable deliveries and our strong product portfolio are the cornerstones of our success.

Among global trends, the electrification and digitalisation of society in particular is boosting our business. The demand for components used in base stations is growing steadily, and our Chinese unit is very competitive in meeting the needs of the 5G market.

In China, as in our other operating markets, our committed and competent local personnel has become one of our biggest strengths. This is now reflected positively in our Chinese revenues and profitability. Our revenues increased by 20% and profit doubled compared to the previous year.

Also in Poland, 2022 was a good year, as both revenues and profits improved significantly. The outlook is also favourable for the current year. For a long time, our challenges in Poland have been a shortage of workers and a high employee turnover. However, with the war in Ukraine, the operating environment has changed. Now there is plenty of labour available, but the price of energy has skyrocketed. Polish industry runs on coal, much of which has come from Russia.

Despite the war and Europe's weakened competitiveness, the "Made outside China" trend is still strong, and this has a positive effect especially on our operations in Poland and India. The Covid pandemic also showed that decentralising production is sensible risk management. For this reason, customers are actively looking for ways to reduce their dependence on China. The desire to keep at least some production in Europe and other countries, or to move it there, is strong. Another motivation is to reduce carbon dioxide emissions and logistics challenges. However, there is a risk that CO₂ concerns will be overshadowed by other issues, at least temporarily.

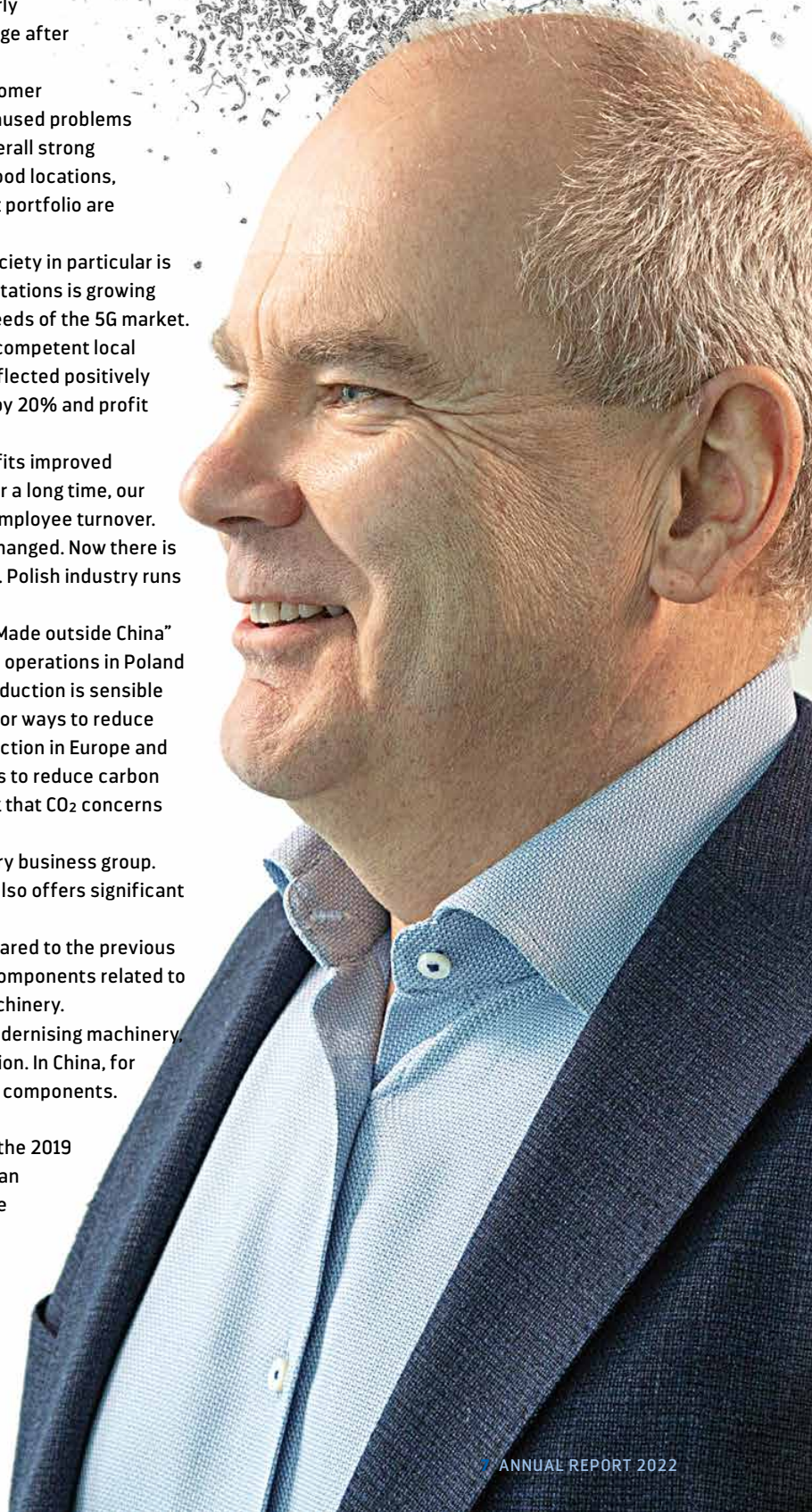
Our joint venture in India produced the best result for the foundry business group. The last year and a half have been very bullish. The Indian market also offers significant growth potential.

Finland, and especially our Laihia unit, improved its result compared to the previous year. A significant portion of the revenues in Finland comes from components related to the electrification of the vehicle industry, including trucks and machinery.

The main focus of investments in 2022 was on updating and modernising machinery, improving energy efficiency and increasing the degree of automation. In China, for example, robots already handle a large part of the grinding work of components. This operating model is also being duplicated in our other units.

Alteams aims to halve carbon dioxide emissions by 2030 (from the 2019 level), despite the challenges. We are committed to this path. We can influence the efficiency of our processes, such as smelting, but the biggest challenge is how energy will be produced in the future in China and Poland.

Asko Nevala
CEO
Alteams Oy





Employees from Loppi gather at Häme Castle to celebrate the big anniversary.

ALTEAMS CELEBRATES 20 YEARS

Machines can be bought, human capital cannot.

Alteams enjoyed a good year in 2022, and the future also looks bright. The company celebrated its 20th anniversary together with all employees, starting with those in China and Poland and continuing in September in Finland.

Employees from Loppi began their celebrations on Friday 23 September, gathering at the historic Häme Castle where everyone enjoyed delicious food and, of course, a birthday cake decorated with the Alteams logo. Speeches were given, including by **Eero Pellikka**, Head of Foundry Business, who reviewed the history and current operations of Alteams. A troubadour provided musical entertainment, and a spectacular fire show lit up the night.

Employees from Laihia had their turn on Friday 30 September, gathering at Villa Sandviken

surrounded by the beautiful autumn foliage. During the evening, everyone got to enjoy traditional Finnish cuisines, including chantarelle soup and beef with all the trimmings, followed by cake and coffee. Alteams CEO **Asko Nevala** gave a speech, in which he spoke about the company's past and present. A local band entertained guests, who also got to enjoy a fire show in the evening.

As Asko Nevala pointed out: Our greatest strength can be found in ourselves as a team: machines can be bought, but human capital cannot. •

BIRTHDAY GREETINGS IN NINE LANGUAGES

Kuusakoski's different country units have a tradition of sending video greetings on the birthday of their employer. The compilation for 2022 saw hand-recorded well wishes from a wide variety of work environments: some waved their greetings from a rally car, others from their home office, and still others surrounded by laboratory equipment. Altogether, congratulations to our 108-year-old company were heard in nine different



languages: Finnish, Dutch, Estonian, Latin, French, German, Spanish, Swedish and English.

The wide smiles visible in the video clips show that our employees are openly proud of our success story in the recycling industry spanning more than a century. The compilation video also sparked

an anticipatory discussion about our next full decade; after all, Kuusakoski will be no less than 110 years old in 2024.

The compilation video was also published on Kuusakoski's LinkedIn account, where it received a warm reception from the public and thousands of views. •

CELEBRATING 30 YEARS OF RECYCLING OPERATIONS IN ESTONIA



Kuusakoski is the largest recycling service provider in Estonia.

Vehicle crushing plant in Heinola turns 50. Read more on page 20!

Kuusakoski's recycling operations in Estonia date back to 1992, when its predecessor EMEX (Estonian Metal Export) was founded. Today, Kuusakoski is the largest recycling service provider in Estonia. The 30th anniversary of recycling operations in Estonia was celebrated in September, when all 11 sites were closed for a day to enable all employees join in the celebrations.

Several interesting workshops and team bonding activities were held during the day. These included a material workshop to familiarise employees with all the different materials processed

at our sites and a customer service workshop to ensure outstanding service throughout Estonia. The evening was spent celebrating together, and awards were presented to employees who have been with us for many decades. Two employees celebrated their own 30th work anniversary, having been with us since the very beginning. The unforgettable evening also featured a band along with a fabulous laser and drum show. •



SWEEP Kuusakoski celebrated its 15th anniversary by serving fish and chips to employees!

CELEBRATING 15 YEARS OF WEEE RECYCLING IN THE UK

Our joint venture SWEEP Kuusakoski marked a big anniversary in 2022. The company began operations in 2007, when the Waste Electrical and Electronic Equipment Regulations came into force in the UK. Investments and continuous development have enabled SWEEP Kuusakoski to retain its position as the leading recycler of small WEEE devices in the UK market with a market share of around 25% of total volumes.

The company celebrated its anniversary by serving fish and chips to its employees across all three shifts, amounting to around 170 meals. Agency staff and subcontracting drivers arriving on the day were also offered the same. This small but important gesture went down very well – particularly when served with a little salt and vinegar! •

PINK CONTAINERS IN SWEDEN HIGHLIGHT BREAST CANCER RESEARCH

We want to take responsibility, both for the environment and for society at large. Kuusakoski Sweden is doing its part by proudly sponsoring the Swedish Breast Cancer Association's initiative Pink October. As such, we have committed to collecting at least SEK 50,000 (approximately EUR 4450) each year for their important work in fighting breast cancer. To achieve our target, we put out a pink container at all our reception sites, from Kiruna in the north to Vetlanda in the south, in which private individuals and companies could deposit their scrap metal during Pink October. The value of the scrap metal is then passed on in the form of a contribution to the Breast Cancer Foundation. The idea developed from a local initiative in Lycksele at the beginning of 2022, when a special container was put out to collect money for the local women's shelter. •



TECH HUNT CAMPAIGN RECYCLES SMART WASTE

The "Tech Hunt" environmental campaign was organised for the second time in Estonia in 2022. The aim of this campaign is to collect smart waste, such as old mobile phones, cords, smart watches and laptops. Electronic equipment is the fastest growing type of waste, so everyone's awareness and contribution is important to reduce it. The campaign was targeted especially at schools and kindergartens and attracted around 6000 participants, who collected 4.5 tonnes of devices. The Tech Hunt gala featured Estonian superstars and kids' favourites **Gameboy Tetris** and **Gram-Of-Fun** (pictured). •

Kuusakoski supports FUTURE FIRE FIGHTERS

On 3-9 July 2022, the international Youth Fire Fighter Camp "Eldis 22" gathered more than 2300 young fire fighters and their instructors at Malmi Airport in Helsinki, Finland, to learn new rescue skills. The international camp was organised entirely by volunteers and hosted participants from several European countries.

To help the future traffic accident rescue workers gain valuable practical experience in using hydraulic rescue equipment, Kuusakoski Recycling delivered 20 cars to the camp. In the event of a real accident, it is important that the rescuer knows how to quickly and safely remove the roof or door from a vehicle, which may have ended up on its side as well, and how to prevent further injuries from happening on the spot.

To ensure the safety of the students, the Kuusakoski team first removed the batteries and liquids from the cars before transporting them to the training site. After the event, the cars returned to Kuusakoski to be recycled as usual. •





GLOVE DAYS MAKES A WELCOME RETURN IN 2022

In May 2022, after a two-year break, we once again had the chance to pull up our gloves again at our traditional Kuusakoski recycling campaign. Organised in nine locations throughout Finland, Glove Days ("Hanskapäivät") was a chance for local households to recycle free of charge their metal waste, old electrical and electronic equipment, batteries and tyres.

The target group for Glove Days consists of local residents living near Kuusakoski locations in Finland. Our aim is to increase general knowledge about recycling, to familiarise locals with Kuusakoski's services and to network locally. Glove Days also pays special attention to younger visitors by offering snacks, competitions and balloons – not to mention the exciting machinery that many visitors, young and old, got to see up close for the first time.

Glove Days 2022 succeeded in activating our neighbours, who came out in large numbers. We collected metal, batteries, electrical and electronic waste, tyres and construction waste. The name of the event comes from the fact that everyone who brings their waste for recycling is gifted a pair of proper work gloves. Altogether, around 2300 pairs of gloves were handed out to the active recyclers who participated in the campaign. •



The star of the show was once again our vintage Datsun 100A mascot car, fondly known as "Little D", which has a habit of melting the hearts of dads in particular.

SCRAP RALLY takes another lap

Our enormously popular Scrap Rally tour for kids was organised in three locations in Southern Finland in autumn 2022. The Scrap Rally encouraged kids bring their old broken toy cars to be recycled. In return, they could choose a new toy car in the event tent. The aim of the tour was to increase environmental awareness among visitors of all ages and to stimulate discussion about the recycling of scrap cars in Finland. The topic is important, because 95% of the weight of end-of-

life vehicles can be utilised, for example to meet the needs of the metal industry.

First held in summer 2021, the Scrap Rally received an extremely positive reception once again. After the tour, all 594 toy cars that had been collected were scrapped and recycled at Kuusakoski's crushing plant, just like actual big cars. The metal parts in the toy cars were also turned into recycled raw materials for the steel industry, while their plastic parts were used to produce solid recovered fuel to replace fossil fuels. •



TEA LIGHT CANDLE HUNT CAMPAIGN MOTIVATES YOUNG ESTONIANS

For several years, we have organised a "Tea Light Candle Hunt", the aim of which is to collect the aluminium cases of used tea light candles. More than 60,000 young people, from kindergarten groups to teenagers in schools, have already participated in this campaign. In total, more than 16.5 million tea light candle cases have been collected so far. The 7th annual campaign will run from the end of 2022 to the spring of 2023. •

COPPER- BOUND FUTURE

One of the most critical basic metals in the electrification of the world is copper. Kuusakoski's new copper centre in Heinola, which begins operations in 2023, marks a significant step towards ensuring the availability of high-quality recycled copper.

Electric vehicles, wind power, smart devices, consumer electronics – wherever you look, copper is tightly bound with increased electrification and the information society. The climate goals and green transition plans of different countries are also contributing towards an increase in copper demand. We at Kuusakoski have harnessed our expertise and constantly developing services to meet the growing demand for recycled materials.





Demand for copper is estimated to rise by up to 50% between now and 2040 – there may even be a copper shortage ahead.

Recycled copper is the more responsible choice and a significant environmental deed, for example in terms of saving energy. It is worth keeping the resources tied to the metal that has been produced in circulation. In the production of metals, a huge amount of energy is consumed just in crushing and grinding the mined ore. For example, the production of aluminium from recycled raw materials consumes only 5% of the amount of energy required to produce aluminium from ore. Similarly, producing copper from ore causes 10 times more CO₂ emissions compared to using recycled materials.

Will there be enough copper?

The importance of copper for the future is inevitable and the demand enormous. BloombergNEF has estimated that demand for copper will rise by up to 50% between now and 2040. There may even be a copper shortage ahead. For example, while cars with combustion engines contain an average of 20 kilos of copper, electric vehicles require up to 80 kilos.

In 2021, the Geological Survey of Finland (GTK) published a research report that acknowledged the fact that the quantity of known mineral resources is not enough to build a global infrastructure based on fossil-free energy. Accordingly, recycled metals play an important role alongside primary raw materials. Waste electrical and electronic equipment (WEEE) contains a huge amount of the raw materials needed by the modern world, including copper. Although the amount

of WEEE materials delivered by companies for recycling is more significant, consumers also have millions of end-of-life devices. According to the Global E-waste Monitor 2020 report, the average European household has 11 defective or obsolete electrical appliances. There is plenty to recycle, in other words.

Is recycling worth it?

While copper is an essential metal in the pursuit of a greener world, the production of virgin copper is anything but green. The mining industry leaves its mark on nature, and the amount of energy required to produce virgin metals is many times higher than the amount required to produce raw materials by recycling. Although recycling copper does not solve the huge demand and need for it, recycled metals make it possible to even out the variability in the availability of primary metals.

A leader in the green transition

The more virgin and non-renewable raw materials can be replaced with recycled materials, the greater the benefit to the circular economy. In terms of the future and the recyclability of materials, it is important to note that the choices and decisions made during the product design phase determine up to 80 percent of the environmental impact during the product's life cycle. As environmental awareness grows, more and more of our customers want to reduce the environmental impact of their own operations by choosing recycled raw materials.

As Northern Europe's leading industrial recycler and a pioneer in the field, we have been working for years to accelerate the circular economy and improve the recovery of recycled materials. Our multi-year investment program announced in 2022 strengthens our position as a leader in the green transition.

RECYCLING TERMINOLOGY



Waste electrical and electronic equipment (WEEE) is a significant source of recycled copper and precious metals. WEEE can contain up to 10% precious metals, which is 10 times more than ore.



Non-magnetic recyclable metals include copper, zinc, lead and aluminium, as well as brass, bronze and stainless steel.



X-ray fluorescence technology (XRF) is a method used at our Heinola plant to identify and separate non-magnetic metals. Each element reacts to X-ray radiation by producing its own characteristic X-ray fluorescence radiation.



Take a virtual tour
of our Heinola plant!
Scan the QR code or
visit our website
kuusakoski.com.



The progress of the investment project has been closely followed by **Tuomas Mantere**, Production Director, and **Marko Serkosalmi**, Project Manager for Machinery and Equipment. The new 38-tonne shredder can be seen in the background. The shredder is used to pre-process the copper- and aluminium-containing materials delivered to the copper centre.

The new copper centre will produce approximately **40 tonnes** of copper a week, which is enough to supply the car industry with the copper needed for around 500 electric cars.

At the same time, the investment program ensures our ability to grow and develop our recycling services to meet the needs of the future.

“Our investment program aims at increasing capacity, better material yields and cleaner end products, i.e. recycled raw materials. By producing purer steel, copper and aluminium fractions, we enable a higher utilisation rate of recycled materials for our customers,” says Kuusakoski CEO **Mikko Kuusilehto**.

Copper centre in full swing

The first outcome of our investment program will be completed in 2023: the new copper centre at our Heinola plant. Construction work began in spring 2022, and the total value of the investment is more than 7 million euros. The facility is unique in Finland and focuses on recycling materials containing copper and aluminium. It has the capacity to recycle all the cables, condensers and other copper-containing materials that we collect in Finland. Previously, the only similar facility we had was in Skelleftehamn, Sweden.

“The new facility allows us to serve our customers more locally, which is not only more sustainable for the environment but also more financially beneficial – both for us and for our customers,” says Mikko Kuusilehto.

Recycled aluminium is further processed at our Heinola plant’s aluminium smelter, which produces recycled aluminium ingots and drops according to precise customer-specific recipes.

Weekly copper output: 40 tonnes

In the past, aluminium and copper materials with completely different values have been processed together in the large shredder at our Heinola plant. The new integrated copper centre consists of pre-crushing and separation lines designed for smaller pieces.

The multi-phase separation and granulation process enables the copper and aluminium contained in cables and condensers, for example, to be separated from each other more efficiently before the aluminium continues onwards for smelting. Multi-phase processing enhances separation and guarantees pure recycled raw materials for copper foundries and aluminium smelters. The production capacity of the new facility is approximately 2.5 tonnes per hour. At this rate, the copper centre can produce approximately 40 tonnes of pure copper a week, which is enough for around 500 electric cars. There is certainly enough demand for copper, as almost 18% (14,530) of the new passenger cars registered in Finland alone in 2022 were electric vehicles. And vehicles are just one of many applications. ●

INVESTING MILLIONS IN PURER RECYCLED RAW MATERIALS

Kuusakoski's multi-year Green Investment Program was announced in September 2022. For our end customers, this investment offers the keys to low-carbon production and products.

The investment program creates the conditions for us to grow and ensure our competitiveness in the coming years as the demand for recycled raw materials continues to increase.

"Nordic companies are investing heavily in the green transition, and discussions with our customers are related in one way or another to the possibilities of building a more sustainable value chain using recycled raw materials," says Kuusakoski CEO **Mikko Kuusilehto**.

The first phase of the investment program focuses on developing our Heinola plant, the largest integrated recycling facility in Northern Europe. Along with the new copper centre that will be commissioned in 2023, we are introducing

significant innovations to improve production processes and the further processing of non-magnetic metals, such as aluminium.

"The investments will increase significantly our total capacity for processing non-magnetic metals. This in turn will allow us to increase significantly the amount and selection of purer recycled raw materials that we can offer to customers," says **Tuomas Mantere**, Director of Production of our Heinola plant.

The investments at our Heinola plant are scheduled for completion in 2025. Kuusakoski is the only manufacturer of recycled aluminium in Finland, and the investment will also increase our aluminium recycling efficiency and capacity. In 2022, we delivered the equivalent of 2000 passenger aircraft in aluminium. In this decade, the global production of recycled aluminium will exceed the production of primary aluminium for the first time – and we are ready to do our part. •

In 2022, we delivered the equivalent of 2000 passenger aircraft in aluminium.



Project manager **Juha Hietamäki** proudly presents a new metal separation device that utilises X-ray fluorescence (XRF) technology.

Multiple end products



Crushed copper-nickel-aluminum made from condensers.



Copper granulate made from transformers.



Copper granulate made from cables.

BOLIDEN AND KUUSAKOSKI

Together towards the Green Transition

Kuusakoski and Boliden have a long history together. For decades, Kuusakoski has supplied secondary raw material and recycling services to the Swedish multinational metals, mining and smelting company.



As one of the leading copper producers, Boliden has key role in enabling of green transition through its sustainable operations and products. The company aims to develop sustainable products and solutions that have a low climate impact and that are produced in accordance with the circular economy model. These kinds of products are resource efficient, as well as responsibly sourced and produced. Boliden and Kuusakoski have very similar sustainability goals, and we have found many synergies by working more closely together.

Materials that are delivered for recycling have become increasingly complex and less pure, creating challenges for recyclers. Kuusakoski has invested heavily in growing its processing capabilities, including an entirely new plant in Heinola for recycling materials containing aluminium and copper that will open in 2023. Our joint

strategic direction to improve the recyclability of copper products and increase the efficiency of their life cycles has yielded great results.

Synergies through co-operation:

- Increased life cycle efficiency through higher recycling and recovery rates
- Lower product CO2 footprint through a higher recycled input
- Product purity and quality meet Boliden's demands perfectly
- Secure, sustainable and transparent value chain upstream through responsible local sourcing and deliveries

"Our long-standing partnership has created a mutually beneficial win-win in terms of productivity and sustainability, improving the recyclability and life cycle efficiency of copper

products overall and lowering the specific carbon footprint of our products," says **Tomas Sjölin**, Purchasing Manager at Boliden.

"Our continual joint development work and long-term co-operation have given us the confidence to invest further and yielded great results for our business while improving overall sustainability," says **Teuvo Kuusakoski**, Business Director, Non-Ferrous Metals and Stainless Steel, at Kuusakoski.

The work continues in 2023, when Kuusakoski and Boliden will focus further on harnessing the synergies and driving sustainability actions towards the entire product life cycle. Kuusakoski supplies sustainable copper raw material, which is essential for the green transition. •



Laura Torkkeli, Sustainability Coordinator at Gigantti, and **Tatu Karlström**, Customer Experience Manager at Kuusakoski.

GIGANTTI AND KUUSAKOSKI

– together among the biggest WEEE recyclers in Finland



Finland's leading home electronics retailer Gigantti has trusted Kuusakoski as its recycling partner for years.

Gigantti collects recyclable home appliances and electronics in its 42 stores around Finland free of charge – regardless of where they were purchased. The devices are handled personally by Gigantti staff and sent to different Kuusakoski locations in Finland. Waste electrical and electronic equipment (WEEE) is processed especially in Heinola, Espoo and Helsinki.

"Together with Kuusakoski, it is important for us to ensure that our customers' devices are recycled securely and that the materials they contain are processed responsibly," says **Laura Torkkeli**, Sustainability Coordinator at Gigantti.

In order to separate the valuable materials contained in electronic devices, they must first be crushed into small pieces. After that, we separate the materials from each other based on their physical properties, such as weight, density and magnetism. Waste electrical and electronic equipment contains dozens of valuable elements, including gold, silver and copper.

"As the market leader, we bear great responsibility for WEEE recycling. It is extremely important that the valuable metals contained in old and irreparable electronics get to continue their life by being reused," Laura Torkkeli adds. •



Recycled copper is a sustainable choice. Producing copper from ore causes 10 times more CO₂ emissions than using recycled materials.



50 YEARS

OF VEHICLE CRUSHING
IN HEINOLA





The vehicle crushing team in the early years (left to right): Heimo Erola, Kalevi Laine, Aimo Mäkinen, Heikki Vekki, Markku Saarinen, Asko Haajanen and Jorma Forsberg (supervisor).



The vehicle crushing team in 2022: Asta Katajainen, Merja Tuominen, Satu Gören, Vesa Mattila and Karoliina Liukkonen (back row), Saku Nykänen, Ville Eld, Daniel Collanus and Jussi Ruuttula (front row), and Teppo Leporinne (on right).

The 50th anniversary of the first vehicle crushing plant in Finland was celebrated at our Heinola recycling centre in autumn 2022. The plant is a pioneer in industrial car recycling that is still going strong, crushing end-of-life vehicles into fist-sized pieces in a matter of seconds.

The pace has not changed, even though the world and motoring itself have changed significantly in 50 years. The vehicle crushing plant that was commissioned in Heinola in autumn 1972 represented a very significant investment at the time, accounting for around 20% of the company's annual revenues. The investment marked not only the starting point for industrial recycling in Finland, but also an important decision by the company to invest in new technologies and expertise. We are continuing along this path today and also in the future.

The plant has been busy processing a large number of end-of-life vehicles right from the start. The vehicle crushing plant kick-started Kuusakoski's operations in Heinola, which today is home to Northern Europe's largest integrated recycling plant and our main 25-hectare site.

Trusted partner to the steel industry

The most important end product of the vehicle crushing plant has always been steel scrap. The Finnish steel industry has indeed been a major partner and customer of the plant for the entire 50 years. Finland's car stock in 1972 was about one million vehicles, and every year about 70,000 were removed from the register. When the plant started, Kuusakoski also had to organise the collection and transportation of end-of-life vehicles around the country in order to get the raw material. The new plant in turn provided the Finnish steel industry with the high-quality raw material it needed from a domestic supplier. At the same time, the end-of-life vehicles that would have once accumulated in Finnish landfills could be recycled without impacting the environment.

Vehicle crushing plant in 2023

- Operated by a team of ten, including machine operators, process technicians, material handlers and an assistant, all overseen by Teppo Leporinne
- Each hour: 30–50 vehicles crushed, 30–50 tonnes of scrap metals produced
- Deliveries to steel plants every weekday
- Finland had more than 5 million registered vehicles in 2022, of which 75,103 entered into the official recycling system

Growth, development and investments

As production grew in the 1980s, we developed the operations of the vehicle crushing plant, for example by investing in material separation technology. The installation of a full-size scale enabled end-of-life vehicles to be collected increasingly by large trucks. Before that, scrap had been received mostly by train and small trucks. In 1985, the Newell shredder that is still in use today was installed, further increasing production capacity.

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More precise recovery of materials

As the number of vehicles grew, preprocessing was increasingly productionised in the early years of the 2000s. These days, we recover tyres, batteries and catalytic converters from end-of-life vehicles. In addition, the removal of fuels and other liquids, referred to as “drying the car”, has considerably reduced the risk of explosions during the crushing phase. The shredder crushes not only cars, but also other metal scrap. The end products include steel scrap, non-ferrous metal scrap and small quantities of light materials consisting of, for example, upholstery and cushions. In 2020, our new reject plant was commissioned in Heinola, which further processes residual waste streams from the vehicle crushing plant. The reject plant enables us to recover annually approximately 2000 tonnes more residual metals than before, and the remaining material is used to produce solid recovered fuel for power plants.

Growing together

The fifty-year-old vehicle crushing plant is still a major part of our operations in Heinola. In a similar way, the development of car recycling in Finland and the growth of Kuusakoski into Northern Europe’s largest industrial recycler and a circular economy pioneer are also linked. Our uncompromising

approach to quality and reliability in turn has guided the development of separation technologies and investments at our Heinola plant. Today, we are the only operator capable of separating and processing all the materials contained in a car in our own processes. We deliver crushed steel that complies with the highest quality standards to Finnish steel mills every weekday, and significant quantities are also exported. Needless to say, our employees play an important role in this growth story, allowing the journey of our vehicle crushing plant to continue for decades to come. ●



Retired Kuusakoski employees **Rauno Viitala** and **Heikki Vekkeli**, pictured here at the Christmas lunch in Heinola in December 2022, enjoyed long careers at the vehicle crushing plant.

HALF A CENTURY OF THE FUTURE



The 50th anniversary of our vehicle crushing plant was celebrated with a number of special events, including a seminar for customers and stakeholders in September.

The “Half a century of the future” seminar was chaired by journalist **Peter Nyman**, and guest speakers included environmental pioneer **Sanna Perkiö** and Professor of Economics **Matti Liski** from Aalto University School of Business. The thought-provoking talks presented their visions regarding the importance of recycled raw

The expert talks received nothing but positive feedback and can be viewed on Kuusakoski’s YouTube channel in Finnish.



materials for society today and highlighted the most important issues for ensuring the recycling efficiency of companies in various sectors. Guests were also able to visit our plants in Heinola, where the hero of the day, our 50-year-old crushing plant, is still in operation. ●



THREE GENERATIONS AT KUUSAKOSKI

Kuusakoski is a highly valued workplace where many employees enjoy long careers. For **Urmo Viisitamm in Estonia, the employment relationship has stretched over three generations of his family already.**

In 1996, at the age of just 18, **Urmo Viisitamm** took a summer job with Kuusakoski at our Paldiski site. His choice of workplace was no doubt influenced by the fact that both his parents also worked at the same site. His father, **Urmas Viisitamm**, worked for Kuusakoski for no less than 28 years, from

1994 to 2022, first as a site foreman and later as a scrap metal collector. His mother, **Kaja Viisitamm**, also enjoyed a long career with Kuusakoski from 1994 to 2015, first as a billing specialist in Paldiski's weighing house and later at our Tallinn office.

Urmo Viisitamm too has clearly enjoyed working in the field of recycling, as his summer job stretched into a long career with Kuusakoski that will have soon lasted 27 years. Over the years, he has literally worked his way up to the top. In 2011, Urmo began

working at our Swedish unit, where he went on to become production manager at our Gävle and Skelleftehamn sites. In November 2020, he was appointed managing director of our Estonian subsidiary, and as of February 2023, he will be able to focus his attention fully on our recycling operations in Estonia.

The apple clearly does not fall far from the tree, as the third generation of the Viisitamm family is represented at Kuusakoski by Urmo's eldest daughter **Kristina**, who has worked as a billing specialist since 2021. Kristina has already worked at four Kuusakoski sites: Rapla, Tallinn, Paldiski and Viljandi.

There is another old saying that it takes a village to raise a child, but in this case it can be really said that generations are raised within our company! ●

Generations are raised within our company!



Secure recycling services launched in Sweden

During 2022, Kuusakoski updated and strengthened its waste electrical and electronics recycling and reuse services in Sweden. Our three new service packages include an on-site zero emission data destruction service for customers, a reuse service for electronics and smart devices, and a standardised express recycling service for business customers.

In addition, we acted as the designated recycling partner in a large data centre dismantling project. Overall, approximately 640 tonnes of material were brought back to the circular economy. Moreover, Kuusakoski became the first circular economy company to be granted official membership in the Swedish Data Center Industry Association. •

NAID AAA CERTIFICATION FOR PLAINFIELD FACILITY IN THE USA



The focus in 2022 for Kuusakoski's ReUse department in Plainfield, Illinois, was achieving NAID AAA certification for information destruction.

Kuusakoski's Plainfield facility in the USA offers ReUse services to companies. Members of our ReUse team who handle, transport and work on data-containing devices must complete very specific background checks and drug screening, along with specific data security training. They are also required to have a work history of at least seven years. NAID (National Association of Information Destruction) certification verifies the compliance of secure data destruction companies with all known data protection laws. The final audit for the certification was conducted in Plainfield on 27 December 2022.

What does our ReUse department do?

We test and wipe data-containing devices in preparation for resale. These devices include computers, phones, tablets, batteries and servers. If the device fails, individual components are tested for reuse, such as processors, RAM, hard drives and graphic cards. We also perform audits for customers, mainly to verify serial numbers leaving their inventory so that the devices can be decommissioned or removed from inventory.

Data security is all about trust

The customer's data security is our number one priority. If a data-containing device cannot be wiped, it is shredded. For example, if a laptop is not working and its board has been soldered on, this material is shredded. If data cannot be wiped, the device cannot be sold for reuse. The term "wiping" refers to removing all data from a device. This is done using Blancco data erasure software.

What does the NAID service include?

If a customer requests NAID services, this means wiping all the data on the device. It does not mean



The ReUse team (from left to right): **Kendall Gildersleeve, Nathan Chen and Johnathan Smith.** Anita Heppler and Tyler Winke are missing from the photo.

that the device itself needs to be destroyed. The NAID service includes capturing the serial numbers of data-containing devices, providing a serialisation report, and destroying the individual device within thirty days of custody unless otherwise specified by the customer.

As part of the NAID certification process, we have further enhanced video security and increased building security, as well as performed extensive background checks. •

"In Reuse, our goal is to prolong the life of as many electronic devices as possible".

Johnathan Smith, Reuse Manager

"Our goal for Plainfield is to offer individualised service for our customers. Our Reuse department doesn't just trade materials, we are giving new life to parts, pieces and machines or creating new raw materials for the industry. All of this happens under one roof," says **Antti Kukkola**, Chief Operations Officer.



E-CIGARETTES

– part of an ever-changing WEEE waste stream

Smart speakers, cordless vacuum cleaners, smart lights, portable power packs, solar panels and smart watches. These are just a few examples of new product lines driven by innovation and consumer demand. A new addition to the WEEE waste stream is the vape e-cigarette.

In the United Kingdom alone, 500 million vapes are sold each year, and 3 million are binned every week. These materials should be recycled and used as raw materials for new products rather than ending up in landfills.

Vapes contain plastics, stainless steel and aluminium, for example. They mainly use lithium batteries – if recycled, they would be enough to power 1200 electric vehicles per year.

The risk from residual nicotine exposure combined with a lithium battery fire hazard require unique solutions. SWEEEP Kuusakoski processes hundreds of vapes per week and has set up a process to recycle them in a safe manner.

Justin Greenaway, Commercial Manager at SWEEEP Kuusakoski, has been at the forefront of stakeholder meetings between vape companies, the UK Government and WEEE compliance schemes to help ensure producer



Television broadcaster ITV visited SWEEEP Kuusakoski to report on the recycling of e-cigarettes.

responsibility functions successfully for this complicated waste stream.

SWEEEP Kuusakoski has also appeared on national TV as an expert explaining the vape recycling challenge. E-waste will continue to change, and the global Kuusakoski team is ready to embrace the recycling challenges that await! •

SWEEEP KUUSAKOSKI – TRUSTED PARTNER



SWEEEP Kuusakoski has offered secure WEEE recycling services since 2010, and 2022 was its busiest year to date. The company's secure data destruction service is the only one of its kind in the UK recycling market. Global brands and retailers who control their own product returns

all require the extra care of a secure service. Our camera surveillance system allows customers to observe the destruction work remotely, and they can even zoom into the most intricate recycling activity, such as removing batteries from in-ear headphones. •





KUUSAKOSKI

– GREAT PLACE TO WORK!

Kuusakoski has been granted Great Place to Work certification as global recognition of our outstanding employee experience, trust-based company culture and commitment to developing a great workplace.

The certification granted to Kuusakoski's Finnish units is recognition of an outstanding employee experience by a third party, Great Place to Work®. The employee experience was measured by means of a Trust Index employee survey, so the certification is based on the genuine experiences of Kuusakoski's employees.

"We participated in the survey for the first time and were granted certification immediately,

so I could not be prouder," says **Nina Perttula**, HR Manager at Kuusakoski Oy.

Employees have always been the most valuable resource for the Finnish family enterprise. Success and development have always been achieved with its employees at the time – already for more than a hundred years.

"We want to be a good and attractive employer. Every Kuusakoski employee has the right to succeed and be successful in their

work. For this they also need good leadership. That is why we regularly measure the development of employee satisfaction and our company culture."

According to the survey, 87% of our employees consider

87%

of our employees consider Kuusakoski to be a very good place to work.

The corresponding figure for typical Finnish companies is 38%.

“ I am happy and proud to be part of the story of a company whose business is based on sustainable development, the circular economy and the efficient reuse of materials. The atmosphere here is really good, the people are nice and helpful. I feel that I am heard.”

Kuusakoski overall to be a very good place to work. This impressive result reflects our really strong sense of equality, the meaningfulness of our work, our trustworthy and value-based management, and our sense of pride. Altogether 90% of Kuusakoski employees feel that they can be themselves in the workplace.

"This shows that we have succeeded in creating a culture in our work community in which employees feel content," Nina Perttula confirms. •

91%

of our employees feel that people are treated equally at Kuusakoski, regardless of their background.

KUUSAKOSKI RECYCLING – PROUD SPONSOR OF CIRCULAR MATERIALS CONFERENCE



When the global event “Circular Materials Conference” took place in Skellefteå, Sweden, in September 2022, we were a gold sponsor - a way to put Kuusakoski Recycling and our expertise within recycling on the circular map. During the conference Sweden’s CEO **Olov Boman** was a speaker on two different occasions and one of the areas he spoke about was our ITAD project, which was started in the spring of 2022.

The week then ended with about 50 participants from various companies and industries visiting our production center in Skelleftehamn. A very concrete way to spread knowledge about our business, and thanks to our competent and service-oriented employees, the visit was very much appreciated by those who participated. •



Kuusakoski helps combat CATALYTIC CONVERTER THEFTS

The number of catalytic converter thefts from cars has increased significantly in recent years in Finland. For example, in 2019, the police recorded 40 catalytic converter thefts in the whole of Finland, while in 2021 there were more than 2800. The police are introducing new measures together with businesses to reduce catalytic converter thefts.

As a major recycling company, Kuusakoski is involved in combating the market for stolen catalysts. In practice, this means that we require a certificate of origin from the seller of the catalyst at our locations. For example, a vehicle scrapping certificate can be used as a document. •



According to **Mikko Kaskismaa**, Key Account Manager, the guiding principle behind the development work has been ease of use.

New customer portal for collection requests

In 2022, we began developing our new customer portal for collection requests. The online service makes it even easier for our customers to manage the various aspects of our recycling services. The system has been designed to adapt to customer needs, enabling a simple and flexible way to place collection requests. Customers can themselves add authorisations for the users they want, and they can also easily define multiple locations for their companies. The progress of collection

requests can even be monitored in real time. The smart functions of the service also make collection logistics more efficient. Optimising driving routes saves both transport costs and emissions. The system compiles reports as needed and notifies users when they are available.

A pilot version of the service was tested at the end of the year among a selected group of customers, and the plan is to extend the service in Finland during 2023. •

AWARD-WINNING COLLABORATION

For safety reasons, the work was done in low wind conditions, which extended the duration of the project.

LIKE THE WIND

Finland's first industrial-scale wind turbines were dismantled in spring 2022. The recycling of the massive turbines by Kuusakoski and the utilisation of materials were handled like the wind - efficiently and ecologically.

Finnish wind power production company Suomen Hyötytuuli Oy dismantled three wind turbines that had reached the end of their technical life cycle at its Reposaaari wind farm in southwestern Finland. Originally built in 1999, the wind turbines represented high technology at the time and generated 1 MW each. The wind turbines had been operated and maintained responsibly throughout their service life, and the dismantling of the turbines was also performed taking environmental impacts into account.

“We recovered numerous components for our own spare parts use, such as engine rooms, electric distribution boards, three blades, electronics and cables,” says **Leena Hacklin**, Production Director at Suomen Hyötytuuli.

KiMuRa project receives 2022 Wind Power Act of the Year award
The Finnish Wind Power Association’s Wind Power Act of the Year award is given to an act or activity that has contributed to supporting or accelerating the growth and development of Finnish wind power. The KiMuRa project also won the public vote overwhelmingly, receiving no less than 80% of the votes.

First time in Finland

The recycling of the Reposaaari wind turbines was a significant step in terms of the KiMuRa (Recycled Crushed Raw Material) project, which explored the possibilities of recycling of plastic composites. Funded by the Ministry of the Environment and initiated in 2021, the project enabled blades from wind turbines to be recycled for the first time ever in Finland. Previously, at least some of the material would have ended up in final disposal.

“The steel tower blocks were delivered to Kuusakoski for recycling along with aluminium and copper components, for example. Altogether six blades from the dismantled wind turbines were recycled using the solution created in the KiMuRa project. Naturally, we are very satisfied that Kuusakoski was able to offer a completely domestic recycling solution for wind turbine blades, 100 percent of which were subsequently used in cement production,” Leena Hacklin explains.



The wind turbines were dismantled at night so as to cause as little inconvenience to traffic as possible.

[Watch a video of the dismantling \(in Finnish\)!](#)



72 tonne power plant

Reaching a height of almost 80 metres, each individual wind turbine was an impressive entity even when dismantled. A single blade weighed 4 tonnes, and each tower consisted of two parts weighing 20 tonnes and 40 tonnes.

“The steel tower blocks together with the aluminium and copper components were processed at our Pori site. The blades were chopped into smaller parts and continued their journey to our Hyvinkää site, where they were crushed into pieces suitable for our end customer, Finnsementti,” says **Anu Söderena**, Business Development Manager at Kuusakoski.

Cement production is a process that consumes a lot of energy but in which fossil fuels can be replaced with the plastics used as a structural part of the recycled composite. This reduces the CO₂ emissions of the process significantly.

“The recycled crushed material is used in the parallel processing of plastic composite

waste at the cement factory, where the composite materials can be efficiently utilised without residual ash. The structural waste, in turn, is used as a raw material in the production of clinker, an intermediary product in cement production,” says **Ursula Kääntee**, Head of Sustainable Development at Finnsementti.

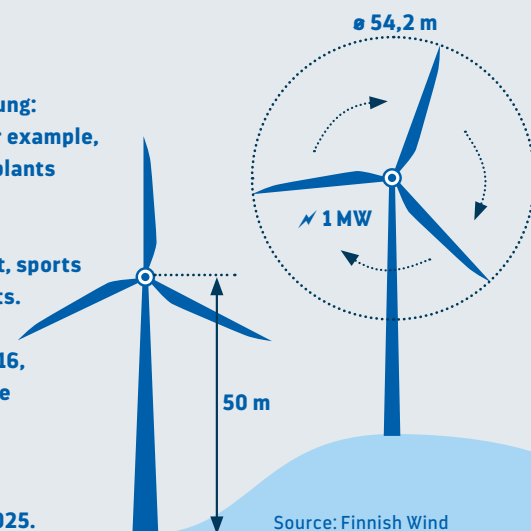
The KiMuRa project officially came to an end in autumn 2022. Anu Söderena, who has been involved since the beginning, is satisfied with the project.

“Metal recycling is our core competence, of course, and thanks to our highly refined processes, we can recycle up to 100 percent of metals. We have done a lot of development work in the field of recycling composites in order to find the optimal crushing method and dust management.”

This work has paid off. According to Anu Söderena, it is estimated that the KiMuRa project can help avoid the final disposal of up to 2000 tonnes of waste. ●

DID YOU KNOW?

- **Finland’s wind power plants are relatively young: more than 95% are less than 10 years old. For example, in Germany, more than a third of wind power plants are more than 15 years old.**
- **Plastic composites are used not only in wind turbine blades but also in boats, cars, aircraft, sports equipment and many other consumer products.**
- **The plastic in plastic composites is organic waste due to the carbon it contains. Since 2016, EU legislation has restricted the organic share of waste that ends up in final disposal.**
- **The European wind power industry has announced a self-imposed landfill ban on decommissioned wind turbine blades as of 2025.**



Source: Finnish Wind Power Association and Suomen Hyötytuuli Oy.

SUSTAINABILITY

Our ambition is to be the preferred partner for our customers through excellence in recycling and sustainability. We are at the heart of the circular economy – sustainability is the cornerstone of our competitiveness, long-term growth and success.

OUR SUSTAINABILITY HIGHLIGHTS IN 2022

- **Ambitious climate target set: carbon neutral operations by 2035**
- **Materiality analysis updated in accordance with the latest standards**
- **We launched our major Green Investment Program**
- **Our recycled products helped to avoid 1.36 million tonnes of CO₂e emissions**
- **Carbon footprints calculated for our main products**
- **Commitment to the UN Sustainable Development Goals**

Responsibility and sustainable development are an integral part of our business. Our operations are based on Kuusakoski's values, code of conduct and a proactive partnership with our stakeholders. We see our sustainable business model, management of the supply chain and developing responsible operations as a great opportunity. Sustainability is an integral and essential part our strategy and business processes.



MATERIALITY ANALYSIS UPDATED – ensures we are focusing on the right areas

A materiality analysis is a company-specific process to identify, assess and prioritise relevant sustainability themes. The process assesses the significance and impacts of various environment, society and governance (ESG) themes for Kuusakoski Recycling, our internal and external stakeholders, and the surrounding society.

The materiality analysis guides our sustainability decision-making and strategy, as well as our targets and related key performance indicators (KPIs), operations, opportunity and risk management, and reporting. The analysis helps us determine which themes we should be investing our time, energy and resources in.

In 2022, Kuusakoski conducted a materiality analysis based on the latest standard approach, a so-called double materiality analysis. The concept of double materiality acknowledges that a company should report simultaneously on sustainability issues that are: a) financially

material in terms of their impacts on business value; and b) material from the point of view of the market, the environment and people. Materiality analyses are called for by many standards and emerging legislation. For example, the binding EU reporting directive on corporate social reporting refers to materiality as the basis of reported data.

During the analysis process, a large pool of external and internal stakeholders were interviewed, and management workshops were organised to define and rank sustainability topics. The sustainability topics that are material to Kuusakoski are presented below:

ESG topic	Outward impact (society)	Inward impact (business)
Circular economy & climate	● ● ● ●	● ● ● ●
Sustainable value chain & partnership	● ● ● ●	● ● ● ●
Provider of sustainable & secure solutions	● ● ● ●	● ● ● ●
Workforce safety, health & wellbeing	● ● ● ●	● ● ● ●
Workforce attraction, development & retention	● ● ● ●	● ● ● ●
Economic value creation	● ● ● ●	● ● ● ●
Environmental impacts of own operations	● ● ● ●	● ● ● ●
Ethics & compliance	● ● ● ●	● ● ● ●
Stakeholder relations & outreach	● ● ● ●	● ● ● ●
Workforce diversity, equity & inclusion	● ● ● ●	● ● ● ●

SUSTAINABILITY PROGRAM

In 2022, we began implementing our new Sustainability Program. This program serves as a Group-wide framework for planning, coordinating, communicating and steering our sustainability activities. Based on the materiality analysis, we have identified four main themes for the program. Each theme is systematically pursued with an action plan consisting of concrete initiatives and development projects. The four themes are outlined below:



1. Proactive partnership with customers

We support the sustainability work of our customers through our products and operations. Together, we make the entire value chain more sustainable. Enabling the “eco-design” and full life-cycle optimisation of products for our customers is key to this. We proactively seek ways to deepen collaboration and partnerships with our customers.



2. Material and energy efficiency of our operations

We reduce the energy consumption and emissions of our production and recycling operations. This theme focuses on reducing the environmental impact of our own operations, improving energy efficiency, and reducing fuel consumption and emissions. In recycling operations, the focus is on maximising the share of waste that is recovered and recycled and on constantly developing new and better recycling processes through in-house R&D.



3. Occupational safety and wellbeing of employees

We care for the wellbeing and safety of our own employees and those of our contractors. We support the participation of employees in the active development of the company and promote equality and diversity in the work community.



4. Continuous improvement of sustainable business practices and supply chain

We are a stable and trustworthy business partner. We have transparent business practices and open stakeholder dialogue. We ensure a sustainable supply chain through responsible contractors and suppliers.

We worked on each of the above themes in 2022, and you can read more about the progress, actions and results in the following sections of this report.



Who? Kristina Runsten
What? Sustainability and QEHS Manager Sweden
Where? Skellefteå/Skelleftehamn, Sweden
How is sustainability reflected in my everyday life?



I love spending time in nature, where I feel like I'm part of something amazing. Sustainability is essential for that, and maybe that's why it's also a part of who I am. Thoughts that help me navigate in my everyday life and choices include "Where and how is this produced?", "What alternatives do I have in terms of how I live and how to be a little bit more sustainable?", and "How can I be a little bit better today?"

Fun fact about me: I dream of having chickens and bees of my own some day in the near future. It would be wonderful to pick my own eggs and drink tea with homemade honey!



= This Sustainability Report has been compiled by a large number of Kuusakoski employees. We present some of those who have contributed to this report in the Sustainability section.

Implementation is the key to achieving results

One of the main objectives of our Sustainability Program is to invite all Kuusakoski employees and partners along on our joint sustainability journey. In order to enable effective collaboration between our international units and various functions, we decided to establish a Sustainability Network with members representing different functions, countries and business areas. The members of the network play a key role in embedding sustainability throughout the organisation, acting as agents of change within their home organisations.

Together with our reporting model, our Sustainability Program and Sustainability Network will enable the management of sustainability issues to be integrated into Kuusakoski's strategy, risk management process and management system.

In 2022, the Sustainability Network convened four times, drafting targets for coming periods and harmonising the reporting and collection of data. Together, we have prepared and approved Group-wide sustainability initiatives and actions.

The circular economy, the green transition and growing concerns about climate change are increasing the importance of product life-cycle information, as well as the demands for environmentally, socially and economically sustainable practices throughout the supply chain. Our customers also need information on the sustainability of end products, such as carbon footprint calculations, as they work towards their own sustainability goals. Legislative and norm-based requirements for both reporting and transparency are increasing. The ability to report on the sustainability and

goal-oriented development of operations has also been taken into account in the objectives of our Sustainability Program.

Our products and services – implementing the circular economy in practice

Kuusakoski is a company that offers sustainable recycling services. Our strength is based on competence with materials, recycling and environmental technology. In addition to metal recycling, we recycle electrical and electronic equipment and manufacture high-quality solid recovered fuel from energy-containing waste that is unsuitable for recycling. All our products are recycled raw

materials made from recyclable materials, and the services we provide are all connected to the reuse, recycling, processing and safe disposal of these materials. Everything we develop, process, manufacture and deliver contributes to a more sustainable tomorrow. The raw materials we supply enable our customers to achieve significant emissions reductions and a more sustainable life cycle for their products. Our products and services are a response to global challenges, such as climate change, energy and resource scarcity, urbanisation and the electrification of society. Recycling enables sustainable economic growth.

Green transition starts here and now

The green transition is defined as a transition towards economically sustainable growth and an economy that is not based on fossil fuels and overconsumption of natural resources. It is widely recognised that recycling and a step-by-step change towards a circular economy are prerequisites for a successful transition.

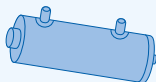
Kuusakoski is a pioneer in recycling whose operations are in line with the green transition. For example, in 2022 we delivered approximately **640,000 tonnes** of fully recycled and recyclable metals in the form of raw materials that enable the green transition of our customers. This quantity corresponded to:



Enough copper for **136,000** electric cars



Enough steel for **1,000,000** car bodies



Enough aluminium for **660,000** heat exchangers



Enough stainless steel for **3,550,000** kitchen sinks

STRONG COMMITMENT THROUGH AMBITIOUS TARGETS

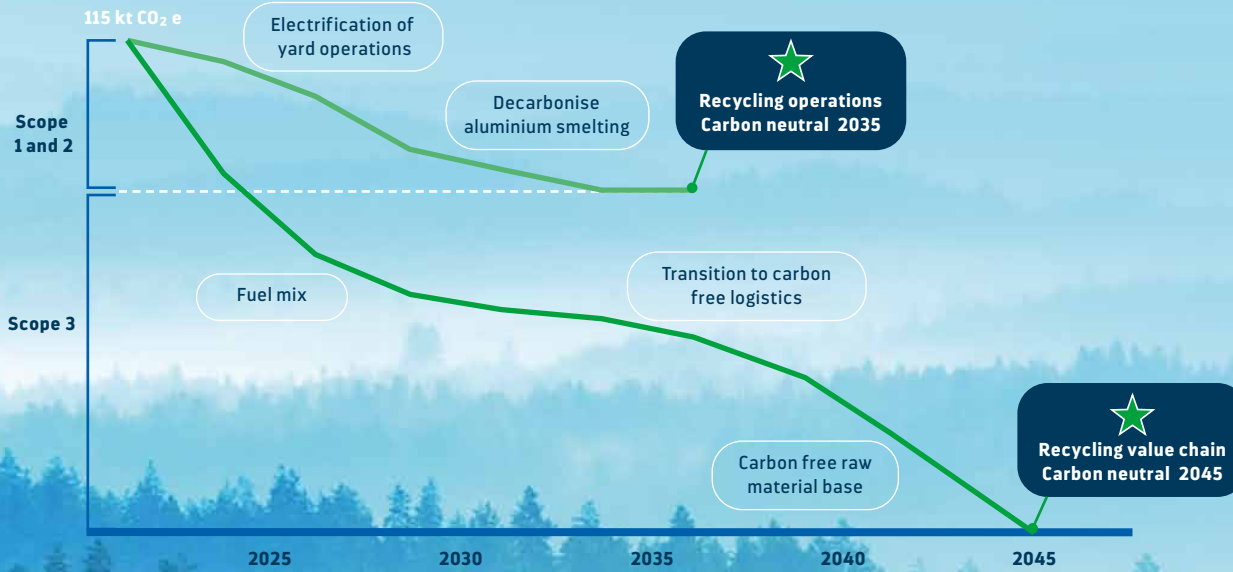
Kuusakoski's greatest contribution towards combating climate change globally is made in the form of avoided emissions when our recycled products replace virgin materials. Despite our significant carbon handprint, we are committed to participating in the common cause of combating climate change by reducing the emissions of our own operations.

OUR CLIMATE TARGETS:

- Kuusakoski Recycling's own operations carbon neutral by 2035*
- Entire value chain carbon neutral by 2045**

* Scope 1 and 2 ** Scope 1,2 and 3

Scope 1 = direct emissions from operations
Scope 2 = indirect emissions from purchased energy
Scope 3 = other indirect emissions from operations



In 2022, we created a climate roadmap for Kuusakoski's carbon footprint with key milestones.

Kuusakoski Recycling annual Sustainability targets

Safety	Material- and Energy efficiency	Sustainable supply chain	Social responsibility
<ul style="list-style-type: none"> Application of safety culture and training Strong focus on observations Enforce contractor and supplier safety standards Specific focus area for fire safety 	<ul style="list-style-type: none"> Energy efficiency improvement Green Investments Improved material recovery rates CO₂ Emissions reductions 	<ul style="list-style-type: none"> Supply chain responsibility and de-risking for us and our customers Supplier classification and auditing scheme in place during 2023 	<ul style="list-style-type: none"> Social responsibility reporting Improve and document ethics and sustainability policies All employees participating in personal development discussions or career talks (documented)
<p>TRIF below 18 LTIF below 11</p>	<p>Energy efficiency +0.5 % Emissions CO₂ -2 % / t Material utilization > 97 %</p>	<p>Implement Code of Conduct to suppliers +95 % of the overall spend</p>	<p>Development discussions, participation rate +95 %</p>

As part of the target setting process, we have defined quantitative targets for each sustainability theme. These Group-wide targets are monitored and the results reported annually in our Sustainability Report.

At Kuusakoski we focus on recycling WITH THE AIM OF LIFE CYCLE OPTIMISATION

The entire life cycle of products or materials must be taken into account when considering the efficient use of resources, sustainable production and consumption. Recycling, recyclability and product design that takes recycling into account – “eco-design” – are of decisive importance in life cycle analyses. Reuse and recycling are by far the best solutions for achieving eco-efficiency.

1 Efficient recycling of materials

We strive to maximise the recycling of end-of-life products and materials. Practical examples of this include producer responsibility agreements, recycling campaigns, and making collection simpler and more efficient.

We advise our customers to sort waste materials correctly where they are generated. Thanks to our comprehensive service network, we are close to our customers and do not have to transport materials long distances for processing.

[Read more on pages 11 and 25.](#)

2 Recycling efficiency and material quality

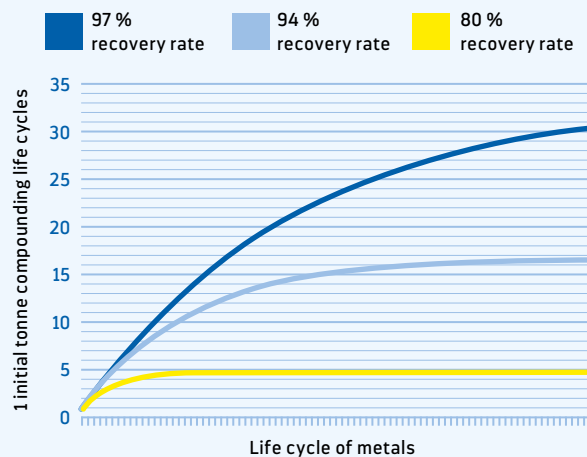
The green transition and circular economy are based on the efficient recycling of materials at the end of their life cycle. The recycling rate determines the overall life cycle efficiency of the end material and product. This is especially important for metals that can be recycled several times at the end of their service life without any deterioration in quality.

KUUSAKOSKI IS THE LEADING RECYCLER OF METALS

Our processing capacity enables the highly efficient recycling of metals from waste streams back into raw materials.

- Our reject plant and advanced fractionation process enable a metal recovery rate that is well above the industry average.
- We continue to make additional investments and perform R&D work with the aim of further increasing the metal recovery rate to 97%.
- We have also developed our non-magnetic metal refining process to double the proportion of pure metals and reduce impurities. [Read more on page 17.](#)

Recovery rate and life cycle benefit



As a theoretical example, a recycling rate of 97% leads to twice the potential life cycle efficiency compared to a recycling rate of 94%. Compared to an 80% recycling rate, the benefit is more than 6 times.



3

Maximising the life cycle

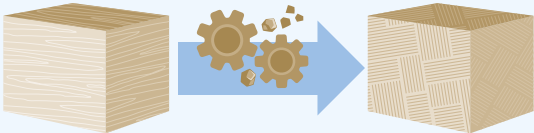
By productising recycled materials, we maximise their usability. The more virgin and non-renewable raw materials can be replaced by recycled materials, the greater the benefits of the circular economy. For example, by producing purer aluminium fractions, we enable a higher utilisation rate of recycled materials for our customers. In this way, we strive to maximise the efficiency of the entire life cycle of materials. [Read more on pages 12-19.](#)

METALS ARE ENDLESSLY RECYCLABLE – RECYCLING EFFICIENCY IS DECISIVE

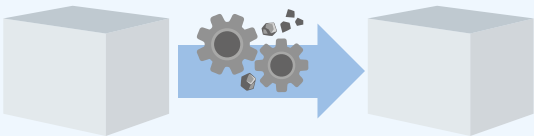
- Metals are elements or alloys and are theoretically recyclable forever.
- The benefits of recycling metals are significant, as producing them from primary raw materials is an energy intensive process that puts strain on the environment.
- Recycling metals by smelting and processing is a much lighter process. For example, steel can be recycled almost emission-free with the help of electricity.
- The quality and purity achieved in the recycling process are essential.

Unlike fibre materials, the properties of metals are not weakened by recycling.

Fibre materials



Metals



4

A new life cycle begins for the products and raw materials we recycle

The benefits of recycling are realised when virgin materials are replaced by recycled raw materials in production. This saves natural resources, avoids CO₂ emissions, improves energy efficiency and makes the supply chain more sustainable. The raw materials we recycled in 2022 enabled our customers to avoid 1.36 million tonnes of CO₂ emissions. [Read more on page 18.](#)



Reuse and recycling are by far the best solutions for achieving eco-efficiency.



In terms of climate impacts and both energy and material inputs, for example, efficient recycling creates a new life cycle that has only a fraction of the ecological burden compared to virgin production.



It is important for us to offer our customers reliable product-specific environmental information, such as carbon footprint calculations.

OUR PRODUCTS HAVE A SMALL CARBON FOOTPRINT AND A LARGE HANDPRINT

Product stewardship is important to Kuusakoski. Not only do we want to promote our own emissions reduction goals, but we also want to ensure the safety and regulatory compliance of the materials and services we supply. We want to help our customers achieve the greatest possible benefit during the life cycle of their own products.

In 2022, we completed the first collection of life cycle data in accordance with the international Greenhouse Gas Protocol for all our main products: recycled metal raw materials (aluminium, copper, steel, zinc and stainless steel), metal alloys and electronics.

It is important for us to offer reliable carbon footprint information to our customers. These footprints are based on externally verified data and cover the impacts of the entire value chain, direct and indirect emissions, including Scope 1, 2 and 3.

In addition, we have developed service processes, as well as recycling and utilisation concepts, to better address the needs of our service customers for sustainability information. During the year under review, we compiled several carbon footprint and handprint reports with end-of-life statements for our service customers.

Fulfilling our vision – to be the preferred recycling partner for our customers – requires us to be the industry forerunner. Taking the first step and developing end-of-life state-

ments is an excellent example of what this involves in practice. These statements not only help our customers reach their goals but also increase overall awareness regarding the opportunities provided by eco-design, the circular economy and life cycle optimisation.



Who? Maija Oravala

What? Environmental Manager

Where? Heinola Recycling Plant, Finland

How is sustainability reflected in my everyday life?

I only buy new things when I need them, and I try to buy clothes and items that are long-lasting and responsibly made. Waste is sorted at home, and any items that are no longer needed but still usable are recycled.

Fun fact about me: When I joined Kuusakoski, the vehicle crushing plant – which we know by its Finnish acronym, APA – had just celebrated its 30th anniversary. When I saw photos from the event, it made me think how APA is like a member of the Kuusakoski family. I had already learnt that several members of the family that owns Kuusakoski had short nicknames with just a few letters!

Record level of investments

In 2022, we announced our multi-year Green Investment Program. The goal of the program is to ensure that Kuusakoski has leading expertise and the best technical processes that are both sustainable and competitive. In addition, the goal is to increase and build new capacity for selected recycling value streams.

These investments will make our products even more sustainable by increasing the recovery rate and improving the final degree of purity. We want to utilise our integrated industrial recycling plant to spearhead development. These investments create significant environmental benefits and synergies throughout the value

Investments create significant environmental benefits and synergies throughout the value chain.

chain, for example by enabling a higher recycling content in refined products, less processing and emissions at the beginning of the production chain, and a higher degree of recycling for materials in everyday solutions, such as vehicles, household appliances and electronic devices.

The goal is to make
Kuusakoski Recycling's
operations carbon neutral by

2035.

ENVIRONMENT

The management of environmental issues at Kuusakoski is based on continuously developing operations and minimising adverse environmental impacts. Our operations are guided by site-specific environmental management systems that comply with the ISO 14001 standard. These systems are a key part of our site management system and day-to-day operations. Compliance is monitored with the help of internal and external audits. All sites with significant environmental aspects have management systems in accordance with the standard.

The environmental impacts caused by the handling and processing of recycled materials were well controlled in 2022. We operated within the permit limits, and small and temporary exceedances occurred 27 times throughout our entire yard network.

The majority of exceedances concerned metal and oil concentrations in runoff water. All exceedances were reported to the relevant authorities, and corrective actions were taken.

The main environmental impacts and risks at our sites are dust and particulate emissions to the air, emissions to water, direct and indirect energy consumption in processes and related emissions, landfill waste and hazardous waste generated as a byproduct of the production of materials, and noise from site processes. The environmental impact of Kuusakoski's operations in relation to the recycling benefits is very small. The use of recycled materials in contemporary society reduces emissions during consumption and enables the efficient use of resources. For example, in the recycling process, increased

energy consumption due to more precise separation and metal recovery leads to multiple energy savings and environmental benefits in the later stages of the life cycle, as virgin raw materials are replaced by recycled materials. Continuously developing recycling processes and high-quality production are solutions for combating climate change and nature loss and environmental protection.

Biodiversity

Combating the loss of biodiversity and the collapse of ecosystems is extremely important. This is one of the biggest threats to humanity in the next decade. The economic and social costs of not acting would be enormous. More than half of the global economy is directly linked to nature and natural resources. The risks of losing

Recycling is at the heart of protecting natural diversity.

biodiversity endanger the entire food supply and nutrition. The loss of biodiversity is also intrinsically related to climate change and worsens it. The progression of nature loss can be viewed through five key factors that cause it: climate change, changes in land and sea use, the direct exploitation of natural resources, pollution and invasive species.

Companies are dependent on nature in their operations, while at the same time their operations have an impact on nature. As a recycling company, Kuusakoski produces products that directly reduce climate impacts and the need to use virgin natural resources.

biodiversity endanger the entire food supply and nutrition. The loss of biodiversity is also intrinsically related to climate change and worsens it. The progression of nature loss can be viewed through five key factors that cause it: climate change, changes in land and sea use, the direct exploitation of natural resources, pollution and invasive species.

Our products and services have a positive effect on biodiversity. We constantly monitor our impacts on biodiversity and strive to minimise negative impacts throughout the value chain. Our operations do not use or take up large areas of land or cause adverse changes, such as nature loss. Kuusakoski does not operate in or in close proximity to conservation areas or areas of significant biodiversity, such as UNESCO World Heritage Sites, Ramsar sites or UNESCO Biosphere Reserves. Our operations have not been found to interfere with local biodiversity or threaten species on the International Union for Conservation of Nature (IUCN) Red List, which identifies and documents species that are most in need of protection or are endangered. In addition to Kuusakoski's own operations, no threats to biodiversity or nature loss have been observed in our supply chain.

Long tradition in protecting the Baltic Sea

The **Rafael Kuusakoski** Memorial Fund directs support to young researchers, primarily for projects related to Baltic Sea birdlife and archipelago life, marine ecology, and climate and landscape protection. The Fund operates under the auspices of the Finnish Foundation for Nature Conservation.

The son of the founder of Kuusakoski and the successor of the business, Rafael Kuusakoski (1925–1982) enjoyed spending his free time in the Finnish archipelago. This passion was behind Rafael's daughter **Rita-Birgit Kuusakoski-Peltonen's** idea to create a foundation bearing her father's name in 2000. Kuusakoski Oy has also donated on several occasions to the Clean Sea Fund established by the John Nurminen Foundation. •

MATERIAL AND ENERGY EFFICIENCY

In 2022, we collected a total of 957,313 tonnes of recyclable materials, and we consumed 23,918 tonnes of excipients in our recycling processes. Final disposal of unrecyclable materials accounted for 62,851 tonnes, and 75,173 tonnes were recovered in the form of solid recovered fuel or as materials. In total 943,362 tonnes of recycled raw materials were delivered as products, including 642,957 tonnes of metal raw materials. The total utilisation rate of materials delivered to Kuusakoski was 94.8%.

Improving energy efficiency and minimising the direct and indirect effects of energy consumption are among the key objectives of our Sustainability Program. A variety of energy sources is used at our sites, including light and heavy fuel oil, diesel, LPG and electricity. Kuusakoski Recycling's energy consumption decreased 6.6 % in 2022 compared to the previous year and amounted to 123,964 MWh (132,682 MWh in 2021).

The Group's approach to long-term energy efficiency is based on our strategic targets and continuous improvement. Energy efficiency is an essential part of our Green Investment Program launched in 2022. We strive to improve process integration and waste heat recovery. We invite energy-saving ideas as part of our initiative system. A separate committee reviews all submitted ideas on a monthly basis, decides on their

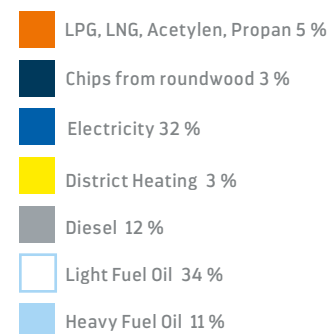
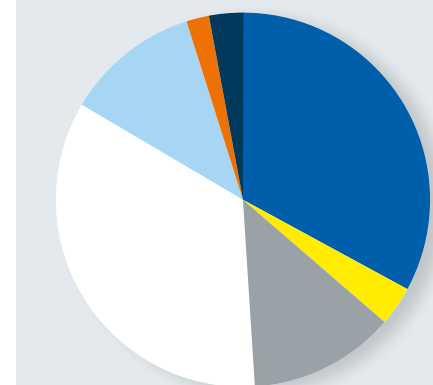
approval and transfers the approved ideas to the line organisation for implementation. As part of our Sustainability Program, we created a roadmap for improving and optimising energy efficiency and reducing the environmental impact of our energy consumption in the coming years.

Climate change

We determined the carbon footprint of our operations globally for 2022 in accordance with the Greenhouse Gas Protocol, the global standard for calculating the carbon footprint.

Our operative greenhouse gas emissions (scope 1 ja 2) were reduced by 8% compared to 2021. The greenhouse gas emissions from our production amounted to 25,966 tCO₂e (Scope 1 and 2). Reducing emissions from our own operations and throughout the value chain is a goal we will take forward in the

SHARE OF ENERGY USE





We are developing emission-free processing alternatives for recycled materials.

coming years. New targets for reducing our emissions have been set for 2022. The goal is to make Kuusakoski Recycling's operations carbon neutral by 2035 (Scope 1 and 2) and those of the entire value chain by 2045 (Scope 1, 2 and 3).

We are reducing emissions and developing emission-free processing options for recycled materials. The general trend is that recyclable materials will be more complex, impure and poorer in the future – and separating and processing them into high-quality, clean products will require ever more efficient processes and even more processing.

At the same time, Kuusakoski's recycling operations reduce the global environmental impact. Every recycled product and tonne of raw material in our operations enables significant emissions reductions for our customers. These reductions are realised when our customers replace virgin raw materials with recycled raw materials or fossil fuels with bio-fuels and solid recovered fuels. The emissions avoided due to our operations, our carbon handprint, amounted to 1.36 million tonnes.

Water separates, rinses and cools

Only our production plant in Heinola, Finland, uses significant amounts of water directly in its processes. In the sink-float process, metals are separated by water based on their specific gravity, and water cooling is used in the aluminium and metal separation process. These processes are based on a closed water circuit and best available techniques.

In addition to its use in processes, rainwater affects all of our sites through the demands for controlling runoff and rainwater. All rainwater that is in contact with recycled materials, i.e. runoff water, is collected and either treated or cleaned and safely returned to the water system – either by our own process or by a local water company. To ensure that the water is treated correctly, we constantly measure the concentrations of all organic and inorganic substances that can be leached into the water from the recycled materials at our sites.

Green investments

Continuously improving the level of environmental protection and developing more sustainable processes requires investments. Almost all process investments in recycling or

processing capacity can be considered green investments. In 2022, Kuusakoski launched its multi-year Green Investment Program in order to strengthen our position as a forerunner in recycling industry (read more on page 17).

In addition to major technology investments, we are investing in existing processes and equipment. In this way, we can reduce our environmental impact and improve resource and energy efficiency. For example, in the UK, we invested in electric, emission-free machinery for our yards. In Finland, we invested in a new mobile shear baler, which allows us to optimise cutting capacity according to the material situation of our yards instead of transporting the material according to cutting capacity. In Sweden, we invested more than one million euros in occupational safety, especially fire protection. Our investments in sustainable, cleaner, more energy-efficient production, occupational safety and environmental protection amounted to EUR 11.2 million during the year under review. This reflects the company's strong commitment to continuously developing sustainable operations.

MATERIAL BALANCE SHEET

Total material used	2022	2021
1.1. Recycling materials input, tonnes		
1.2. Metals	693,173	955,216
1.3. Energy	74,500	84,126
1.4. Tires	69,745	69,313
1.5. Other materials	119,895	102,895
Production excipients		
1.6. Production excipients*	23,918	26,673
Total material input	981,231	1,238,224
Renewable materials**	97.6 %	97.8 %
Non-renewable materials	2.4 %	2.2 %
Recycled materials, share of production inputs	97.6 %	97.8 %
Other production inputs		
Energy, MWh		
6.1. Electricity	39,514	43,272
6.2. District heating	4,125	4,009
6.2. Energy consumption of fuels***	80,325	85,401
Total energy consumption	123,964	132,682
Energy intensity, all energies, kWh/delivered tonne	131.4	131.2
Water used in production, m³		
2.1. Water intake	42,290	40,472
2.2. Drainage water	35,329	27,956
2.3. Runoff water at production sites	284,752	369,836
Waste and emissions		
Waste		
3.1. Total amount of waste, tonnes	138,024	129,175
3.2. Non-hazardous waste, recovery	48,525	-
3.3. Non-hazardous waste, disposal	25,253	-
3.4. Hazardous waste, recovery	26,648	-
3.5. Hazardous waste, disposal	37,599	-
Emissions to air (production)		
Total emissions, scopes 1 & 2	25,966	28,236
4.1. CO ₂ -emissions, scope 1, tCO ₂ e	23,196	24,968
4.2. CO ₂ -emissions, scope 2, tCO ₂ e****	2,770	3,268
Products		
Deliveries and products		
5.1. Total products, tonnes	943,362	1,011,370
5.2. Metal products	642,957	745,871
5.3. Solid recovered fuels	121,094	125,672
5.3. Tyre-based products	155,243	112,225
5.4. Other products*****	24,068	27,602
Crushing concrete and asphalt as service, tonnes	932,695	921,183

* includes mainly aluminium production supplements (Silicon, oxygen, salt, other metals)

** inbound materials are recycled materials, applicability of concept of "renewable" is limited

*** Includes: diesel, light fuel oil, heavy fuel oil, liquefied petroleum gas, chips from roundwood, acetylen, propane

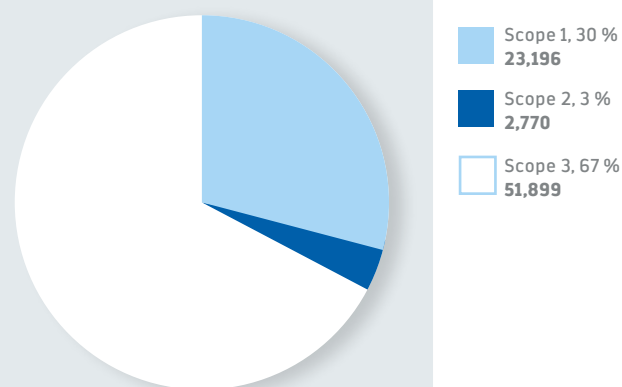
**** market based emissions

***** Main fractions: WEEE-materials, lead batteries, plastics

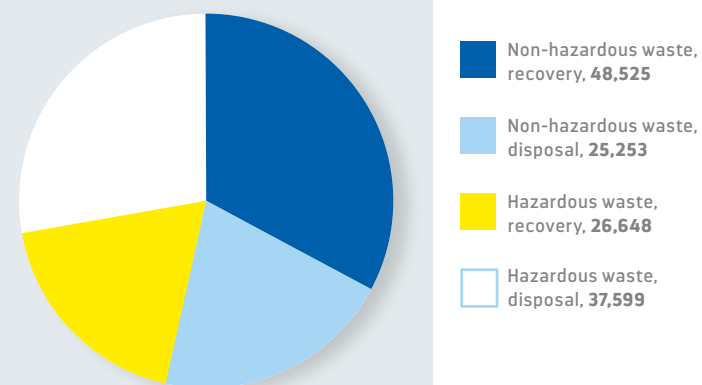
Total GHG-emissions by scope and emissions intensity	2022	2021
Scope 1 emissions, tCO ₂ e	23,196	24,968
Scope 2 emissions, market based, tCO ₂ e	2,770	3,268
Scope 2 emissions, location based, tCO ₂ e	6,180	6,834
Scope 3 emissions, tCO ₂ e, total	51,899	60,156
Scope 3, Logistics	43,469	48,641
Production raw materials and consumables*	8,430	11,515
Total**	77,865	88,392
Emissions intensity kgCO ₂ e / tonne delivered (scopes 1,2 & 3)	83	87

* Includes melting and casting raw materials, supplements for aluminium processing and sink & float

** Contains scope 2 market based emissions

GHG-EMISSIONS BY SCOPE, tCO₂e

WASTE TYPES GENERATED, tonnes



GHG emissions 2022, tCO₂e

Country	Scope 1	Scope 2*	Scope 3	Total emissions	Deliveries	Intensity, kgCO ₂ e/ tonne
Finland	18,549	153	38,974	57,676	554,883	103.9
Sweden	2,334	21	9,037	11,392	220,269	51.7
Estonia	707	1,695	1,121	3,523	103,920	33.9
UK	859	24	1,345	2,228	50,023	44.5
USA	746	877	1,422	3,046	14,267	213.5
Total	23,196	2,770	51,899	77,865	943,362	82.5

*market based emissions

Logistics emissions, TTW, tCO ₂ e	2022	2021
Road transports		
Finland	17,346	18,382
Sweden	8,749	8,824
Estonia	1,121	1,115
UK Sheffield	211	236
UK SWEEEP	1,134	1,093
USA	1,422	1,212
Sea transports		
Coasters and deep sea		
Finland	10,349	13,878
Sweden	208	195
Containers		
Finland	2,849	3,634
Sweden	81.0	74
Total Kuusakoski Recycling	43,469	48,641



SUSTAINABLE SUPPLY CHAIN MANAGEMENT

For both us and our customers, the sustainability of the entire value chain is key in achieving our ambitious goals.

Supply chain sustainability is one of the key themes of our Sustainability Program. In 2022, Kuusakoski directly employed contractors in several production functions, amounting to 271 person years. In the updated materiality analysis in 2022, “Sustainable Value Chain and Partnerships” was one of the main topics. During the year under review, we began implementing our Code of Conduct as part of the requirements and approval process for our suppliers. These guidelines and their demands have been communicated to over 70 percent of our largest cooperation partners (purchasing and logistics).

In 2022, we also updated our sourcing policies to include requirements for compliance with our Code of Conduct and communicated this with our suppliers. In addition, we integrated sustainability assessments into our general supply chain management processes, including supplier approval, monitoring and auditing plans. Our enhanced risk management process and business continuity planning in 2022 was supported by categorising suppliers, which was completed for strategic and critical supplier categories in Finland.

Environmental impacts of logistics

Since logistics represent the largest portion of Kuusakoski’s CO₂ emissions, we have continued to analyse transport emissions throughout the whole supply chain and have planned future actions to reduce emissions from our logistics operations.

We adopted the EN 16258 standard in 2021 to calculate transport emissions for road and maritime logistics in Finland and Sweden. In 2022, significant work was conducted to gather, verify and allocate emission data as part of our product and customer specific carbon footprints and customer statements.



In 2022, the calculation model was automated and digitalised to enable product and customer specific carbon footprint and emission reporting.

Environmental impacts from the supply chain

Emissions and operating costs go hand in hand in logistics. It is therefore vital for our competitiveness and sustainability targets to continue this development work rigorously. In 2023, the focus will again be on developing our transport planning system in order to support the action plan for emissions reductions and to provide accurate data for emission reporting. In addition, it is extremely important that our logistics partners commit to emissions reductions in the coming years. Sharing information and working in close collaboration with suppliers will be key in achieving the defined company-level emission reduction targets.

In 2022, our logistics emissions were reduced by 10.6% due to both lower volumes and more efficient planning of transports.

Supplier responsibility for logistics

We require all our partners to comply with existing laws and agreements. Our logistics partners are mainly local operators, which facilitates supplier management. In Finland, our partners must be part of the Reliable Partner service, which is used to monitor that our partners fulfil their legal obligations as contracting parties and employers. The year

2022 was challenging for the logistics sector in many ways, mainly due to high inflation and fuel costs. Therefore, we have paid extra attention in monitoring supplier responsibility.

In 2022, we introduced and required suppliers to comply with our Code of Conduct. In addition, we published and shared a revised version of our safety instructions for logistics partners.



Who? Petri Kontulainen
What? Head of Logistics
Where? Turku, Finland
How is sustainability reflected in my everyday life? In everyday life sustainability is pretty much a matter of using common sense. For example, sorting household waste, optimising household energy consumption, using bicycle for short distances, and much more.
Fun fact about me: I have played volleyball for 20 years (up to the Finnish 2nd league), even though I'm too short for that game!



OCCUPATIONAL HEALTH AND SAFETY

Safety management and safety practices are based on the international ISO 45001 standard for occupational health and safety management.

In 2022, approximately 49% of employees within Kuusakoski were covered by ISO 45001 occupational health and safety certification. Kuusakoski Sweden is undergoing the certification process for all sites during 2023. At sites not covered by the certification, safety work is guided by the same principles of continuous development: occupational safety risks are assessed, incidents and accidents are investigated and learned from, and employees are encouraged to make preventive safety observations. In addition to Kuusakoski's employees, Kuusakoski's contractors and suppliers, as well as everyone working on our premises, are also covered by our occupational safety processes and safety practices. Within Kuusakoski, key safety indicators are discussed monthly by the steering groups of our country units and reported to Kuusakoski Recycling's Management Team and Board of Directors.

Comprehensive orientation is provided at the start of each employment relationship in order to ensure the safety of our employees.

The orientation covers Kuusakoski's safety policies, general and local safety routines, actions to be taken in case of an emergency, reporting incidents and accidents, our Code of Conduct and much more.

Practical occupational health and safety is based on risk assessments, which are reviewed annually and updated as necessary. These risk assessments cover physical, psychosocial and organisational risks. Risk assessments are always updated in connection with changes in operations, as well as in response to serious accidents or near misses. Risk assessments are also made before new work or process types are introduced in order to ensure that everything has been taken into consideration and that working is safe. In addition to production employees and supervisors, experts from Kuusakoski's QEHS organisation are involved in preparing new risk assessments and introducing updates. Safety walks and fire safety rounds are made at each site at different intervals depending on the site-specific risk level, but at least once a year.

Risk assessments are supplemented by safety observations recorded in an electronic system and daily safety walks carried out at the sites. In both safety training and day-to-day activities, employees are encouraged to actively observe and to always report issues that endanger safety and to refrain from performing dangerous work until any possible deficiency or shortcoming has been corrected.

The practice of investigating accidents, serious near misses and fires ensures that information about them reaches all employees and that lessons can be learned from the incidents. When investigating accidents, a root cause analysis of the cases is performed, and corrective and preventive measures complete with schedules and



responsibilities are always determined. To take the preventive work even further, Safety Alert material is prepared for all serious accidents and near misses that is then distributed to all other sites, where it can be used to share the information and to prevent the same types of incidents and accidents from occurring elsewhere. Accident investigation reports are reviewed by management and steering groups, as well as together with employees during monthly safety briefings.

Employee participation in developing occupational health and safety

Preventing and managing exposure to hazardous substances and physical risk factors are vital aspects of our safety work. All our employees are covered by occupational healthcare in accordance with the applicable national legislation, as well as occupational accident insurance. Occupational exposure and workload factors are investigated at Kuusakoski on a regular basis and whenever operations change significantly. Based on the results of these investigations, measures are planned to reduce the load and exposure. The percentage of absences due to sick leave for all employees in Finnish operations was 5.1% (sick leave / theoretical working time).

Our employees participate in the development of safety in their day-to-day work by reporting safety observations, contributing safety ideas and participating in safety briefings organised by their supervisors and the activities of occupational health and safety committees in different countries. These committees are responsible for occupational health and safety cooperation between employees and employers and for proposing ideas to improve safety. In 2022, the committees in different countries met at different intervals (four times in Finland and Sweden). Employees have elected their own occupational health and safety officers/representatives for the committees.

Occupational health and safety training was organised regularly in Kuusakoski's country units in 2022. In Sweden, the SSG Employee Safety e-learning platform, which is available in 13 languages, was introduced in 2022. Employees are required to take this training every third year. This interactive general safety training is one of the most used platforms in Sweden for increasing awareness, competence and understanding

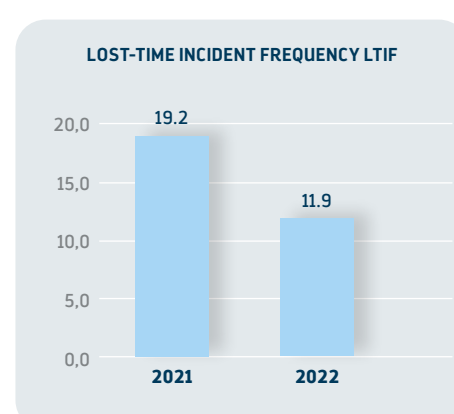
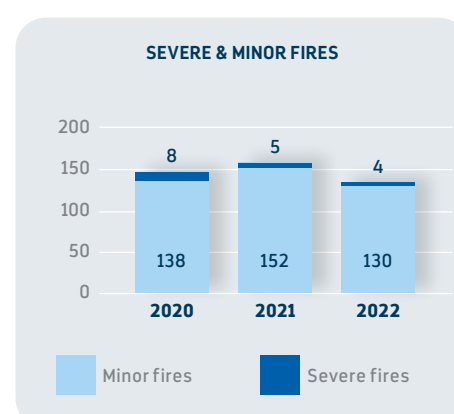
The lost time injury frequency decreased from the previous year by **38%**

of risks at the workplace. At Skelleftehamn, Kuusakoski's biggest site in Sweden, the 5S system project was launched to organise the work environment in such a way that work can be performed efficiently and more safely. In Finland, 98 Kuusakoski employees and contractors participated in one-day occupational safety culture training. In addition, employees were trained locally and for specific occupational hazards in such areas as radiation safety, safe forklift handling, chemical safety and occupational exposure.

Safety vision: zero accidents

One of Kuusakoski's strategic targets is to be a forerunner in the field of occupational health and safety, and our vision is to achieve zero accidents. The systematic and long-term development in this vital field continued in 2022 with good results. The frequency of accidents leading to absences per million hours over a 12-month period decreased compared to the previous year by 38%. The lost time injury frequency (LTIF) rate for the entire recycling business group at the end of 2022 was 11.9 (19.2 in 2021).

The proactiveness of employees in reporting safety deficiencies and helping to prevent accidents has increased steadily in recent years. In 2022, we introduced a new safety reporting system and set a new record with over 2700 safety observations worldwide. In addition, near-miss reports were made, and the cases were handled in the appropriate manner.



Who? Janne Haaksluoto
What? Manager, QEHS & Sustainability
Where? Vantaa, Finland
How is sustainability reflected in my everyday life?
 I try to act in accordance with my values both at work and in my free time, and to the best of my ability I make everyday choices that promote sustainable development.
Fun fact about me: Before and while starting in the corporate world, I played guitar professionally for almost 15 years in different bands around Finland and the Baltic Sea!

Managing occupational exposure

Kuusakoski's occupational exposure project has been ongoing in Finland since 2020. In 2022, information on harmful substances and physical and biological risk factors was successfully collected using a new digital exposure tool. The tool contains the information and results from more than 20 occupational hygiene reports and over a hundred measurements from different Kuusakoski sites. The tool helps our experts, supervisors and employees access relevant site-specific information on exposure and assess whether the protective equipment used at the

site is appropriate and provides an adequate level of protection. This information is also used together with our occupational health services to help plan biomonitoring schemes and health inspections more efficiently.

The next steps in our occupational exposure project will be training Kuusakoski employees to better understand exposure and various risk factors, to use best practices in reducing their own exposure, and to use the best possible protective equipment appropriately.



Fire safety

Lithium-ion batteries as a threat to fire safety in the recycling industry
Damaged and broken lithium-ion batteries pose a significant fire risk among recyclable materials. Accordingly, improving fire safety was again at the heart of our safety operations in 2022. The focus at Kuusakoski Recycling was on detecting and reporting ignitions, as well as on effective initial extinguishing measures in order to avoid more serious fires. The coverage of reporting improved, and all incidents classified as fires that occurred in the operations of Kuusakoski in 2022 (4 in total) were successfully controlled using initial firefighting methods without any significant injuries or damages. The number of fires has decreased steadily compared to previous years. A total of 130

Fire safety – proactive work reduces risks

Kuusakoski's Timrå site in Sweden is a good example of how proactive work can reduce and help manage the risk of fires. It is important to learn how to handle fire extinguishing equipment and how to act in the event of a fire.

"We conduct regular fire drills together with a firefighter in which all employees participate. The drills cover practical aspects, such as the location

of fire extinguishing equipment, what it looks and feels like, and the proper way to use it. Over the years, our employees have been able to test their fire extinguishing skills also in real-life situations. Using the right equipment in the right way has helped minimise damage," confirms **Jörgen Engman**, Site Manager in Timrå.

minor fires were recorded at all Kuusakoski production sites.

Investments were made in firefighting equipment and the firefighting skills of employees at several Kuusakoski sites. Additional thermal cameras were installed at our sites in Finland and Sweden to better

manage fire risks at our material stacks. Our hot work procedures were also updated in Finland to further lower the risk of ignitions while performing welding and other work involving heat, open flames or sparks.



Bullseye! The first face-to-face meeting of our Sustainability Network included fun activities to melt the ice between the participants. Pictured from left to right: Mari-Liis Vaher, Tuomas Haikka, Tiina Malin, Petri Kontulainen, Mari Laakso, Kristin Wallin, Tiina Konttila, Laura Oksanen, Janne Haaksluoto, Tapio Kuusakoski, Maija Oravala, Kristina Runsten and Tanel Tälli.

International Sustainability Network convenes in Heinola

Following the publication of our Sustainability Program at the beginning of 2022, we established an international Sustainability Network to enable efficient global collaboration and to steer our sustainability roadmap going forward. Members were invited from QEHS, communications, HR and all business areas. The network was able to meet face to face in September, when the agenda of the meeting included long-term sustainability targets.



RESPONSIBILITY FOR EMPLOYEES – WE WORK RESPONSIBLY TOGETHER

Healthy, competent and valued employees are essential for our success. Changes in our operating environment and working life demand even more development, both as individuals and as a company. We actively develop and improve the occupational safety and wellbeing of our employees, our company culture and our leadership and management work. We involve all employees in our joint development.

We conduct annual employee surveys to highlight the experiences and opinions of all our employees in a structured way, make the workplace even safer and further improve job satisfaction. In Finland, we participated in the Great Place to Work survey for the first time and were granted certification. Read more on page 26.

Everyone deserves great leadership

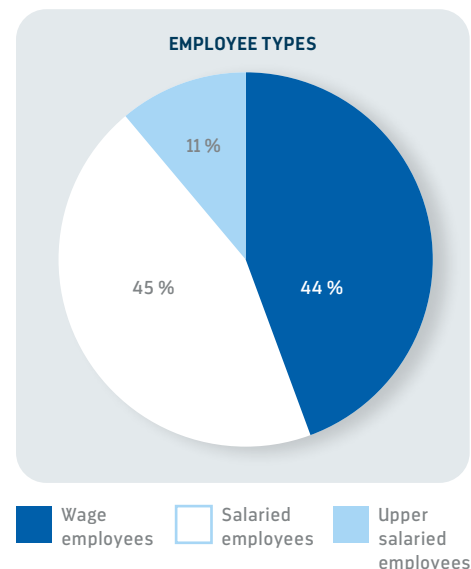
Kuusakoski employees are satisfied with their work. Our employee surveys indicate clearly that all the basics, including the quality of leadership, are at a good level. We strongly believe that by taking care of our employees, providing a common direction and ensuring the clarity of our own work and goals, we create a strong foundation for meaningful work and wellbeing. Our employees feel that they are valued. Our employees are committed, and we have long employment relationships. Our employees want and are also encouraged to be actively involved in developing the company's operations. In 2022,

for example, employees made 116 safety, energy saving and development proposals in Finland and 85 in Sweden.

We develop our supervisor and management work regularly to ensure, for example, fair and effective operating models within each team, the implementation of strategic priorities, and mutual collaboration and development. In Finland, supervisors participated in a monthly forum covering such themes as the annual calendar for HR management, occupational safety, strategy, and other current issues. We also provide new supervisors with comprehensive training.

Number of employees by gender, employee type and age	Under 30	30-50	Over 50	Male	Female	Total
Kuusakoski Recycling						
Wage employees	99	220	136	385	70	455
Salaried employees	59	237	162	315	143	458
Upper salaried employees	4	81	31	83	33	116
Total	162	538	329	783	246	1,029

** Own employees, actual number of employees on the last day of the year. Figures for the USA include leased employees.*





The theme was highlighted through internal communications over a two-year period.

Everything in Order campaign ends, caring continues

Our two-year Everything in Order (“Kaikki Kunnossa”) campaign to support occupational safety and wellness activities was concluded at the end of 2022 in Finland. The campaign supported our aim of being the industry leader in occupational health and safety. At the heart of the campaign was a team of Carers, who set themselves the goal of improving the experience of equality and community.

“I am extremely pleased that the team wanted to continue also after the end of the campaign. It really shows that they have found their work meaningful,” says HR Manager **Nina Perttula**.

One of the main initiatives of the Carers was to visit Kuusakoski sites in Finland, which began in spring 2022. The visits were used to strengthen team meeting procedures, discuss the positive attributes of the various teams, and tour the yards.

We aim to be the industry leader in terms of occupational health and safety.

Caring is responsibility

For us at Kuusakoski, caring is responsibility. We care for the wellbeing of our employees in many ways. Our employees feel that their work environment is safe both physically and psychologically. In 2022, no incidents of harassment or discrimination were reported in our operations. Kuusakoski has 100% freedom of association, and we are committed to and comply with the International Labor Organization (ILO) Collective Bargaining Convention*. In Finland, we offer more comprehensive occupational healthcare than is legally required together with 24/7 insurance to provide support and security when illness strikes or something unforeseen happens.

Our occupational health services work in exceptionally close collaboration with insurance and pension companies. The focus of this collaboration is on preventive action.

In Finland, employees can hire a personal health coach for six months to help with changes in everyday habits, such as increased exercise, healthier eating, better sleep and recovery, or improved work practices. More than 30 Kuusakoski employees have already engaged in this sparring with good results.

For the second year in a row, we launched the popular Kuusa Care Health Challenge in Sweden. This fun concept encourages employees to inspire each other to be more active in their everyday lives and have fun together at the same time. In addition to earning activity points, the teams also raise money for charity, with the winning team getting to choose the charity.

Our way of working

In the autumn, we strengthened our corporate culture in terms of sustainable operations

in different everyday situations. In 2022, we launched online training under the theme “Our Way of Working”. The training is aimed at all employees and covers our Code of Conduct, emphasising the role of the individual in implementing sustainability. New employees complete the training during their orientation.

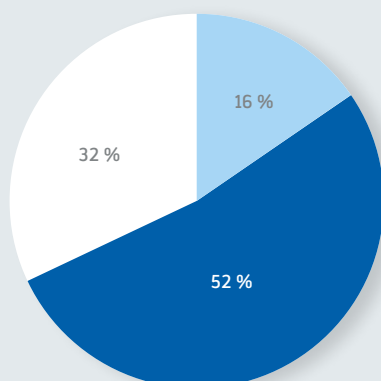
The diversity of our employees has increased, which creates a basis for everyday learning, operational development and sharing knowledge. Our versatile expertise enables us to respond to a wide range of customer needs and requirements, as well as the

Ratio of basic salary and remuneration of women to men	2022
Northern Europe (Finland, Sweden, Estonia)	
Wage employees	95 %
Salaried employees	93 %
Upper salaried employees	88 %
UK and USA	
Wage employees	95 %
Salaried employees	88 %
Upper salaried employees*	75 %

* Includes only employees in the USA

*International Labour Organization (ILO), Collective Bargaining Convention, 1981, (No. 154); modified

AGE DISTRIBUTION



Under 30 30-50 Over 50

New employee hires	Under 30	30-50	Over 50	Male	Female
Finland	70	23	18	76	35
Sweden	10	15	6	22	9
Estonia	4	8	5	10	7
UK Sheffield	0	0	0	0	0
UK SWEEEP	23	33	8	59	5
USA	5	14	8	22	5
Total Kuusakoski Recycling	112	93	45	189	61

Hires & Turnover	Finland	Sweden	Estonia	UK and USA
New employee hires	111	31	17	91
Hire rate	25 %	15 %	18 %	32 %
Employee turnover rate	4 %	2 %	15 %	31 %

Average training hours Kuusakoski Recycling*	Male	Female	Total
Wage employees	7.5	8.4	7.7
Salaried employees	7.3	4.7	6.4
Upper salaried employees	9.2	8.8	9.1
Total Kuusakoski Recycling	7.6	6.2	7.3

* UK not included



Pictured (from left): Hanna Wiklund, Maria Forsfjäll, Yasmine Berg, Linn Viklund and Linnea Bergman.

Kuusa Care does good in many ways

Healthy employees who enjoy working together are a prerequisite for a successful company.

For the second year in a row, Kuusakoski Sweden has promoted the wellbeing of its employees by means of the Kuusa Care Health Challenge, an initiative for a happier, healthier workday. Over a six-week period, participants were active for more than 5300 hours in a variety of activities, the most popular being steps, walking and dog walking. Just under 30% of participants stated after the challenge that their activity level had increased and more than 10% that their general wellbeing had improved. This year's challenge, which is also linked to charity, was won by ÅterVinnarna (The Recyclers, pictured), who chose to make their contribution to the Breast Cancer Foundation. •

often-rapid changes in them. In Finland, a Finnish language training program for foreign employees was launched at the end of the year. Stronger language skills enable better engagement in developing both individual work and the work community, as well as success at work.

Our way of working includes annual employee development discussions that cover issues such as the basic task and goals of each employee, successes, performance, strengths, wellbeing at work, life situations and expectations. Annual employee development discussions were held at the beginning of the year with 71% of employees. In Finland, team discussions were held before the development discussions. The team discussions focused on the results of the employee survey. In addition, the teams were able to give their thoughts regarding two different themes related to updating the company's strategy.

Employees are encouraged to develop themselves in many ways, and we offer internal opportunities for task and career rotation. Vacancies in Finland are submitted to an internal search, as a result of which several employees change their duties each year. A lot of individual development takes place in everyday work, but also development at the group and organisational level. The strategic competence of all employees is supported, for example, with a monthly event. Our extremely open operating culture ensures genuine teamwork and fosters both trust and a sense of equality.



Summer job: recycling



Kuusakoski employed a total of fifty summer workers at its locations in Finland in summer 2022. The hard-working young men in the photo got to know our historic Kauklahti site as part of their summer jobs. The summer workers got to disassemble various small electronics, such as modems, routers and hard drives.

"They got the job done, and everything went smoothly," says Department Manager **Jimi Pettilä**, who supervised the summer workers.

The importance of occupational safety cannot be overemphasised for summer workers who are gaining their first experiences of working life. Accordingly, the young men were given comprehensive safety training before getting started, and their work was closely monitored the entire time.



Who? Tiina Konttila
What? Group Controller
Where? Head Office in Espoo, Finland
How is sustainability reflected in my everyday life? Sustainability is reflected in my everyday choices. I prefer domestic choices in purchases, and I pay attention that I consume reasonably. I recycle waste but often also sell things that I don't need and buy second-hand.
Fun fact about me: I started to play the piano at the age of 5 and later continued playing at a music institute. Even though I don't play the piano that actively these days, I seem to have retained this skill even after long breaks!

KUUSAKOSKI AND STAKEHOLDERS



Materiality analysis and stakeholder engagement

Creating and maintaining open interactions with stakeholders is the foundation of sustainability for a traditional family business like Kuusakoski. In 2022, we further deepened the creation and maintenance of active relationships with our key stakeholders. Clarifying the expectations of stakeholders was a significant part of our materiality analysis. The aim of the materiality analysis was to clarify key sustainability topics, to better understand the needs and expectations of our stakeholders, and to develop sustainability reporting based on the results of the analysis.

Benchmark analyses, international publications and reporting standards were used to identify and define relevant sustainability topics while also taking into account Kuusakoski's previous sustainability work. Descriptions were prepared for key topics in terms of sustainability, and the descriptions were used in interviews with stakeholders. Kuusakoski's external and internal stakeholders were interviewed about the effects of the sustainability topics on Kuusakoski's value creation

and, on the one hand, about the effects of Kuusakoski's business on the environment, society and human rights. The interviewees were chosen to broadly represent awareness of various aspects of Kuusakoski's business and sustainability. In the interviews, information was gathered about the expectations of Kuusakoski's internal and external stakeholders regarding different sustainability topics.

In the materiality analysis, the main topics of Kuusakoski's sustainability work included

the company's role as an actor in the circular economy and participation and collaboration in the climate work of our customers. As a supplier of recycled materials, we play a key role in reducing the carbon footprint of our customers. Other topics that ranked high in the analysis included the sustainability of the value chain, the safety and occupational wellbeing of employees, and the ability to supply data-secure services.

Case KiMuRa – Wind Power Act of the Year 2022

Kuusakoski is an active partner in many projects, some bilateral and others involving multiple stakeholders, that are seeking solutions and innovations for the recycling industry and sustainable development. In 2022, Kuusakoski received recognition for its contribution to the KiMuRa (Recycled Crushed Raw Material) project. In the project, the Finnish Plastics Industries Federation convened a group of experts from companies and the government with the aim of creating a technically and economically viable recycling process for industrial composite waste and ensuring that the waste is efficiently utilised. Kuusakoski has planned and implemented the crushing and screening solutions. The KiMuRa project received the Wind Power Act of the Year 2022 award from Finnish Wind Power Association. The award is given to an act or activity that has contributed to supporting or accelerating the growth and development of Finnish wind power, Finland's energy self-sufficiency and clean energy production. Read more on page 28.

Building a sustainable future together with customers and society

One of Kuusakoski's sustainability themes is a proactive partnership with customers. Together with our customers, we develop processes that serve their business and sustainability. We support the sustainability work of our customers by providing recycling benefit calculations and CO₂ reports.

As part of our cooperation work with stakeholders, Kuusakoski participates in the activities and working groups of various interest groups. Our purpose is to promote the circular economy and the operating conditions of recyclers, for example by producing facts and impact assessments and communicating objective information openly to support decision-makers in industry and society.

Internal Sustainability Network

Involving internal stakeholders in our sustainability work is important to Kuusakoski. In March 2022, we established an internal Sustainability Network comprising experts from Kuusakoski's different functions and country units. The network convenes quarterly to discuss current sustainability issues, promote projects related to the Sustainability Program and set sustainability targets. The aim of the network is to increase the participation of employees and different functions in the planning and development of our sustainability work, as well as to deepen collaboration between Kuusakoski's different country units.



Kuusakoski and local communities

An important part of Kuusakoski's environmental sustainability and local stakeholder outreach is to know and communicate the local environmental impact of our operations and the entire value chain. All Kuusakoski sites have an environmental permit that defines measures to reduce emissions and environmental impacts. Discussions with municipal decision-makers, authorities, neighbours and other stakeholders are an important part of Kuusakoski's local outreach in order to take environmental aspects into account and develop operations. We

organise discussion forums and informative briefings for local residents, students and companies, who are also invited to visit our sites. In Finland, for example, Kuusakoski is a nationwide operator with more than 20 sites. An extensive service network guarantees good access to recycling services even for customers outside larger cities. Locally, Kuusakoski is an important employer, business partner and taxpayer, promoting regional economic development and wellbeing. You can read more about our campaigns and projects in Sweden on the following page.



The student working group together with lecturer Minna Ulmala on the final report day of the study period, 29 November 2022.

University collaboration provides insights and ideas for intranet project

Kuusakoski's communications team in Finland teamed up with LAB University of Applied Sciences to conduct a preliminary study for an intranet project in autumn 2022.

Minna Ulmala, Senior Lecturer in Computer Science, oversaw the student project as part of their Digital Service Design course. During the study period, second-year computer science students implemented a service design process in teams of 5 to 6 people with the goal of designing a customer-oriented digital service concept. The students were able to visit our office and familiarise themselves with our current intranet system. The project workshops included employ-

ees representing different roles and parts of our Finnish organisation.

"It was really helpful that the representatives of Kuusakoski who participated in the workshops were so positive and active. In our opinion, it says a lot about the company that they wanted to do such a study in the first place and that they really wanted to listen to their employees and their needs," comment students **Moona Hiltunen** and **Miro Jokinen**.

As a result of the preliminary study, our communications team now has a 26-page report full of information, insights and concept ideas.



Social projects in 2022

Kuusakoski is active in numerous social projects to support the social dimension of sustainability and raise awareness about recycling. Listed below are just some of the social projects in which we have been active in Sweden:

- **Career-oriented rehabilitation** – We worked with actors providing career-oriented rehabilitation with the support of El-Kretsen, the Swedish producer responsibility organisation for producers of electrical and electronic equipment.
- **Pink Ribbon breast cancer campaign** – Read more on page 10.
- **Natur & Miljöboken** – We sponsored environmental educational material for young people.
- **Städa Sverige** – We sponsored the environmental organisation for Swedish sports, which teaches children and youth about sorting and recycling waste.
- **Trafikkalendern** – We sponsored traffic safety and environmental educational material for young people.
- **Team TUSS** – We support youth football so that all young people can enjoy sports regardless of their economic situation.
- **Scrap collection campaigns** – Our campaigns have raised funds to support social causes, such as women's shelters.

In addition, we support local associations and sports clubs that do important work to support recreational activities for youth.



Public sector and sponsorship

Kuusakoski's sponsorship decisions are based on clearly defined criteria and are directed towards targets that promote recycling, our corporate image, responsibility and sustainable development. The company also makes discretionary donations for the common good as a responsible corporate citizen. These donations are approved by the Management Team or the Board of Directors. Donations in 2022 amounted to approximately EUR 230,000.

The regulation of Kuusakoski's business environment is developing and renewing at a rapid pace. In particular, several current legislative packages in the European Union contain elements that affect the recycling business and the entire supply chain. Kuusakoski participates in the work of national and regional industrial organisations with the aim of transparently producing fact-based information and techno-economic impact assessments as a basis for legislative work. Our goals are an open operating environment

and a fair competitive environment based on level playing field.

Kuusakoski does not conduct direct political influence or participate in or otherwise support political activities, whether local, national or international. The company does not make donations to political parties or groups, either directly or indirectly.

FINANCIAL RESPONSIBILITY

Financial responsibility at Kuusakoski means sustainable economic growth. We take care of our business profitability and competitiveness, and we make the investments needed to ensure this in the long term. At the heart of financial responsibility are ethical and compliant operations and sustainable supply chains. We are constantly developing our operations so that we can continue to bear our responsibilities also in the future.

By maintaining our financial responsibility, we enable value creation for our stakeholders. Kuusakoski has a positive impact on society as a whole but especially promotes regional economic development by being a responsible employer and business partner that creates value locally.

In 2022, Kuusakoski Group received EUR 1.6 million in state support, including EUR 1.2 million from Finland and EUR 0.3 million from Sweden. Kuusakoski Group has no state ownership.

Managing sustainability and compliance

Key principles and reporting are discussed by the Group's Board of Directors and Management Team. The Sustainability function is managed by the Chief Sustainability Officer, who is in charge of corporate sustainability and public relations and is a member of the Management Team of Kuusakoski Recycling. The Chief Sustainability Officer is responsible for developing and implementing a business-oriented sustainability strategy. The Sustainability Network, supported by steering groups, is responsible for developing, coordinating and reporting on sustainability work. The management of the business groups is responsible for implementing practical measures. During 2022, sustainability was on the agenda twice in the board meetings of Kuusakoski Recycling, where the Board was updated on progress and strategy, and commitments and targets for coming periods were approved. In addition, the Board of Directors of Kuusakoski Group had one sustainability briefing during 2022.

Compliance is a vital aspect of Kuusakoski's operations, and the operating model reinforces a compliant approach in terms of compliance with laws, rules and regulations. The basis and core of the operating model is our Code of Conduct

Stakeholder group	Sources of Added Value	2022	2021
Customers	Sales, income and financial income	761.7	719.5
	Distribution of added value	731.8	694.7
Suppliers of goods and services	Purchased goods and services, paid rents	628.3	600.7
Employees	Salaries, wages, social security and pension contributions	79.0	75.1
Financiers	Financial expenses	4.9	3.1
Public sector	Taxes	5.8	7.9
Shareholders	Dividends	13.6	7.8
Communities	Donations and public interest support	0.2	0.1
	Business development	29.9	24.8

and guidelines. Identifying responsibility and compliance risks is part of the Group-wide risk management process. These risks are related to combating corruption and bribery, competition law, data protection and consumer protection, which can have significant negative consequences for our business, including serious financial or reputational risks. Kuusakoski also has a WhistleBlowing channel that is available to everyone, allowing employees or outsiders to anonymously highlight any grievances or observations about non-compliance with our Code of Conduct.

In 2022, Kuusakoski had no cases related to breaches of competition law, corruption, bribery, data protection or consumer protection. Based on the risk assessment and supply chain analysis, our operations do not cause any negative effects within the value chain. We have not observed or received any reports or statements regarding discrimination, human rights, the use of child labour or forced labour. Our operations and sourcing are based in low-risk areas.

Occupational health and safety, environmental and quality management systems

At Kuusakoski, activities related to occupational health and safety, the environment and quality are managed on the basis of international management system standards and local material-specific standards. Our quality, environmental and occupational

health and safety management systems have been certified by an external partner and cover 49-80 % of employees (ISO 9001: 67%, ISO 14001: 80% and ISO 45001: 49%). Kuusakoski locations that do not have certifications comply with the principles of these management systems.

In addition to international management system standards, Kuusakoski also complies with the ISO 17025 standard for fuel analysis (Kuusakoski Research Centre, Finland), as well as the e-Stewards standard for ethical and responsible reuse, recycling, and disposition of electronic equipment and information technology and the NAID AAA standard (USA).

Kuusakoski employs occupational health and safety, environmental and quality professionals in all the countries it operates in. These experts are responsible for coordinating and developing the relevant systems within their own countries, as well as for collecting and compiling the information needed for reporting. The key figures related to these systems are reported monthly to Kuusakoski's management.

In 2022, Sweden developed and introduced a new, more accessible management system covering the requirements of ISO 14001, ISO 9001 and ISO 45001. The goal is that Sweden will be fully certified according to ISO 45001 during 2023.



SUSTAINABLE DEVELOPMENT GOALS

AGENDA 2030 Kuusakoski participates in world's largest corporate sustainability initiative

The UN Sustainable Development Goals Action Program is a multi-year strategy that aims to promote awareness and actions among companies to achieve the Sustainable Development Goals by 2030. Agenda 2030 strives for sustainable development in terms of the economy, wellbeing and the environment.

Kuusakoski is also committed to the Ten Principles of the UN Global Compact, which outlines fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption. We incorporate the UN Global Compact and its ten principles in our strategy, culture and day-to-day operations, and we participate in cooperation that promotes the UN's broader development goals, especially the Sustainable Development Goals.

A global leader in sustainable development and a key enabler of the circular economy

Sustainability has been at the core of Kuusakoski for more than 100 years, and the company continues to play a key role in the circular economy by restoring value through recycled materials and recycling services. Kuusakoski has a long history of finding safe, efficient and economically feasible and sustainable technologies to reduce waste and enable the reuse and recycling of materials.

Kuusakoski has selected the following Sustainable Development Goals:



In the future, we will report annually on our progress in terms of the Sustainable Development Goals.

Sustainability reporting in accordance with the Global Reporting Initiative

This is the second Sustainability Report for Kuusakoski Recycling in accordance with the Global Reporting Initiative (GRI). The report is based on a double materiality analysis, and selected sustainability information has been assured by an external party (Ernst & Young Oy). Kuusakoski Recycling's Sustainability Report is integrated with Kuusakoski Group's Annual Report and covers the reporting period 1.1.2022-31.12.2022 with reference to GRI. The reported figures generally include all the production operations of Kuusakoski Recycling. If the coverage deviates from the definition or is narrower, it is reported in the reporting principles or Sustainability Report in connection with the figure in question. Companies / functions: Kuusakoski Oy, Kivikolmio Oy, Kuusakoski Sverige AB, Kuusakoski AS, Kuusakoski US LLC, Kuusakoski Ltd, SWEEEP Kuusakoski Ltd.

Reporting principles, see page 59.

Donation to Ukraine

In 2022, Kuusakoski Group donated EUR 200,000 for humanitarian aid in Ukraine. We were shocked and deeply concerned by the serious humanitarian crisis that the Ukrainian civilians were facing, and the whole Kuusakoski community had a strong willingness to help. The donation was addressed to UNICEF and the Finnish Red Cross and made in the names of Kuusakoski Recycling and Alteams.

Supplementary tables, Kuusakoski Recycling

Percentage of employees by gender and employee type	Under 30	30-50	Over 50	Male	Female	Total
Kuusakoski Recycling						
Wage employees	10 %	21 %	13 %	37 %	7 %	44 %
Salaried employees	6 %	23 %	16 %	31 %	14 %	45 %
Upper salaried employees	0 %	8 %	3 %	8 %	3 %	11 %
Total	16 %	52 %	32 %	76 %	24 %	100 %

Percentage of employees receiving development discussions	2022
Kuusakoski Recycling	
Wage employees	69 %
Salaried employees	67 %
Upper salaried employees	92 %
Male	73 %
Female	67 %
Total Kuusakoski Recycling	71 %

Number of employees by country	2022
Finland	
Wage employees	238
Salaried employees	95
Upper salaried employees	104
Male	325
Female	112
Total	437
Sweden	
Wage employees	18
Salaried employees	177
Upper salaried employees	12
Male	162
Female	45
Total	207
Estonia	
Wage employees	0
Salaried employees	97
Upper salaried employees	0
Male	62
Female	35
Total	97
UK Sheffield	
Wage employees	19
Salaried employees	7
Upper salaried employees	0
Male	24
Female	2
Total	26
UK SWEEP	
Wage employees	114
Salaried employees	60
Upper salaried employees	0
Male	142
Female	32
Total	174
USA	
Wage employees	66
Salaried employees	22
Upper salaried employees	0
Male	68
Female	20
Total	88
Total all countries	1,029

Employment types Kuusakoski Recycling	2022
Kuusakoski Recycling	
Permanent employees	991
Temporary employees	38
Non-guaranteed hours employees	0
Full-time employees	1,016
Part-time employees	13
Total	1,029

Diversity in Governance bodies Kuusakoski Recycling*	2022
Gender	
Male	67 %
Female	33 %
Age	
Under 30 years old	6 %
30-50 years old	59 %
Over 50 years old	35 %

* Country Steering Groups and Recycling Management Team

Parental leave	Male	Female	Total
Entitled to parental leave	570	193	763
Took parental leave	47	19	66
Returned to work after leave	44	13	57
Stayed at work after leave	44	11	55

Total energy use, MWh	2022	2021
Electricity	39,514	43,272
District Heating	4,125	4,009
Diesel	15,162	14,989
Light Fuel Oil	41,548	41,639
Heavy Fuel Oil	14,135	17,866
LPG / Acetylen / Propan	6,148	8,487
Chips from roundwood	3,332	2,421
Total	123,964	132,682

LPG = Liquefied Petroleum Gas, LNG = Liquefied Natural Gas

Renewable & non-renewable energy, MWh	2022
Renewable energy	36,408
Non-renewable energy	87,557

Health & Safety KPI's	2022	2021
Fatalities (employees)	0	0
Fatalities (non-employees)	0	0
Lost-time incidents - LTI (employees)	20	32
Total recordable incidents - TRI (employees)	33	46
Total recordable incidents - TRI (non-employees)	18	-
High-consequence injuries (employees)	1	-
High-consequence injuries (non-employees)	0	-
Fatalities as a result of work-related ill health (employees)	0	0
Cases of recordable work-related ill health (employees)	6	-
Fatalities as a result of work-related ill health (non-employees)	0	-
Cases of recordable work-related ill health (non-employees)	0	-
Near misses	247	285
Safety observations	2,768	2,419
Severe fires	4	5
Minor fires	130	152
Working hours (employees)	1,676,259	1,663,451
Working hours (non-employees)	441,891	-

Incident frequencies*	2022	2021
Lost time incident frequency LTIF (employees)	11.9	19.2
Total recordable incident frequency TRIF (employees)	19.7	27.7
Total recordable incident frequency TRIF (non-employees)	40.7	-
Total recordable incident frequency TRIF - all	24.1	-
High-consequence injury frequency (employees)	0.6	-
High-consequence injury frequency (non-employees)	0.0	-

* frequencies are calculated based on 1000 000 hours worked

Incident frequencies by country (employees)	2022	2021
Finland		
Lost time incident frequency LTIF	11.3	20.3
Total recordable incident frequency TRIF	11.3	21.8
Sweden		
Lost time incident frequency LTIF	13.7	11.6
Total recordable incident frequency TRIF	16.4	17.4
Estonia		
Lost time incident frequency LTIF	6.3	0.0
Total recordable incident frequency TRIF	12.6	12.6
UK Sheffield		
Lost time incident frequency LTIF	0.0	0.0
Total recordable incident frequency TRIF	0.0	0.0
UK SWEEP		
Lost time incident frequency LTIF	20.0	34.3
Total recordable incident frequency TRIF	30.0	40.0
USA		
Lost time incident frequency LTIF	0.0	23.7
Total recordable incident frequency TRIF	78.4	106.6

Code of Conduct communication & training	Communication	Training
Kuusakoski Recycling		
Governance body members	100 %	25 %
Employees	100 %	39 %
Total	100 %	38 %

Reporting principles

Calculation of greenhouse gas emissions

Kuusakoski's emissions inventory includes the emissions of Kuusakoski Recycling's production locations in the countries where it operates (operational control), as well as the emissions from the transportation of materials and the lifetime emissions of the most significant excipients used in aluminium production. Emissions are reported as carbon dioxide equivalents (CO₂e), while other greenhouse gases are not reported separately. The inventory consists of the scopes in accordance with the GHG protocol as follows:

Scope 1: Direct emissions from operations – emissions from the consumption of fuel at production sites.

Scope 2: Indirect operational emissions from purchased energy – emissions generated by the consumption of electricity and district heat at production locations. For Scope 2 emissions, location-based emissions and market-based emissions have been calculated. In the total emission figures, the market-based emissions are used.

Scope 3: Other significant indirect operational emissions – emissions generated during the transportation of materials (logistics) (Category 4) and emissions from the production of additives and excipients used in production (Category 1).

The calculation of greenhouse gas emissions for both production and logistics has been refined and the coverage improved after 2021, and the previously reported figures for 2021 have been adjusted to comply with the new calculation principles. The emission coefficients used in the calculations are based on generally known written sources and information received from suppliers. Some of the emission factors have been estimated based on the best available data.

The emissions calculation of logistics for Finnish and Swedish road transports and for maritime transports is based on the SFS-EN 16258 standard and Tank-to-Wheel (TTW) emissions are reported for these. Road transports in Finland and Sweden comprise approximately 91% of the emissions inventory of all logistics. The best available data, such as direct fuel consumption data, kilometres driven and total costs related to logistics, has been used in the calculation of emissions from logistics in other operating countries.

The emissions calculation of production additives and excipients includes aluminium production excipients (Finland). The largest product groups are included in the calculations, and they represent approximately 78% of the excipients used in aluminium production.

Other reported figures

The calculation of several figures reported in the Sustainability Report has been refined and the coverage improved after 2021. In the employee figures for 2021, only the figures for Finland were reported, whereas in the 2022 report, all operating countries have been included. For the USA, leased employees are also reported in the number of employees. The previously reported figures for 2021 have been adjusted as necessary to comply with the new calculation principles and coverage.

GRI Content index 2022

Statement of use: Kuusakoski has reported the information cited in this GRI content index for the period 1.1.2022-31.12.2022 with reference to the GRI Standards. Published 27.4.2023.

GRI used: GRI 1: Foundation 2021

GRI Standard	Disclosure	Location of disclosure report
GRI 2: General Disclosures 2021	2-1 Organizational details	Report of the Board of Directors, p. 64; Contact Information, p. 80
GRI 2: General Disclosures 2021	2-2 Entities included in the organization's sustainability reporting	Sustainability reporting in accordance with the GRI, p. 57; Reporting principles, p. 59
GRI 2: General Disclosures 2021	2-3 Reporting period, frequency and contact point	"Sustainability reporting in accordance with the GRI, p. 57; Accounting principles, p. 73; Managing sustainability and compliance, p.56"
GRI 2: General Disclosures 2021	2-4 Restatements of information	Sustainability reporting in accordance with the GRI, p. 57; Reporting principles, p. 59; GRI Content Index p. 60
GRI 2: General Disclosures 2021	2-5 External assurance	Accountant's assurance report, p. 63
GRI 2: General Disclosures 2021	2-6 Activities, value chain and other business relationships	Report of the Board of Directors, p. 64 and p. 66-67; https://www.kuusakoski.com/ ;
GRI 2: General Disclosures 2021	2-7 Employees	Responsibility for Employees, p. 49; Supplementary tables, p.58; Report of the Board of Directors, p. 65
GRI 2: General Disclosures 2021	2-8 Workers who are not employees	Sustainable Supply Chain Management, p. 44
GRI 2: General Disclosures 2021	2-9 Governance structure and composition	Corporate Governance, p. 78
GRI 2: General Disclosures 2021	2-10 Nomination and selection of the highest governance body	Corporate Governance, p. 78, 2-10a
GRI 2: General Disclosures 2021	2-11 Chair of the highest governance body	Corporate Governance, p. 78, 2-11a
GRI 2: General Disclosures 2021	2-12 Role of the highest governance body in overseeing the management of impacts	"Managing sustainability and compliance, p. 56, Risks and risk management p. 65, Accounting principles, p. 73"
GRI 2: General Disclosures 2021	2-13 Delegation of responsibility for managing impacts	"Managing sustainability and compliance, p. 56"
GRI 2: General Disclosures 2021	2-14 Role of the highest governance body in sustainability reporting	"Managing sustainability and compliance, p. 57"
GRI 2: General Disclosures 2021	2-16 Communication of critical concerns	Managing sustainability and compliance, p. 56; Risks and risk management p. 65; https://www.kuusakoski.com/en/global/company/sustainability/our-whistleblowing-service/
GRI 2: General Disclosures 2021	2-17 Collective knowledge of the highest governance body	"Managing sustainability and compliance, p. 56"
GRI 2: General Disclosures 2021	2-18 Evaluation of the performance of the highest governance body	Report of the Board of Directors, p. 64
GRI 2: General Disclosures 2021	2-22 Statement on sustainable development strategy	https://www.kuusakoski.com/en/global/company/sustainability/
GRI 2: General Disclosures 2021	2-23 Policy commitments	https://www.kuusakoski.com/globalassets/global/shared/sustainability/kuusakoski_code_of_conduct_a4_2021-002.pdf
GRI 2: General Disclosures 2021	2-24 Embedding policy commitments	"Managing sustainability and compliance, p. 56, "
GRI 2: General Disclosures 2021	2-25 Processes to remediate negative impacts	Risks and risk management p. 65, https://www.kuusakoski.com/en/global/company/sustainability/our-whistleblowing-service/
GRI 2: General Disclosures 2021	2-26 Mechanisms for seeking advice and raising concerns	Risks and risk management p. 65, https://www.kuusakoski.com/en/global/company/sustainability/our-whistleblowing-service/
GRI 2: General Disclosures 2021	2-27 Compliance with laws and regulations	Risks and risk management p. 65, https://www.kuusakoski.com/en/global/company/sustainability/our-whistleblowing-service/
GRI 2: General Disclosures 2021	2-28 Membership associations	Public sector and sponsorship p. 55,
GRI 2: General Disclosures 2021	2-29 Approach to stakeholder engagement	Materiality analysis updated, p. 31; Kuusakoski and Stakeholders, p. 51, Materiality analysis and stakeholder engagement p.53
GRI 2: General Disclosures 2021	2-30 Collective bargaining agreements	Responsibility for Employees, p. 50
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Materiality analysis updated, p. 31; Kuusakoski and Stakeholders, p. 53
GRI 3: Material Topics 2021	3-2 List of material topics	Materiality analysis updated, p. 31
GRI 3: Material Topics 2021	3-3 Management of material topics	Sustainability Report, by topic, p. 30-57; Sustainability Program, p. 32-33.
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Financial Responsibility, p. 56

GRI Standard	Disclosure	Location of disclosure report
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	Environment p. 40, Report of the Board of Directors, p. 64 and p. 66-67; https://www.kuusakoski.com ;
GRI 201: Economic Performance 2016	201-4 Financial assistance received from government	Financial Responsibility, p. 56
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	Sustainable supply chain management p. 44; Supplementary tables, p. 59
GRI 205: Anti-corruption 2016	205-3 Confirmed incidents of corruption and actions taken	Managing sustainability and compliance, p. 55
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Managing sustainability and compliance, p. 55
GRI 301: Materials 2016	301-1 Materials used by weight or volume	Material Balance Sheet, p. 43
GRI 301: Materials 2016	301-2 Recycled input materials used	Material Balance Sheet, p. 43
GRI 301: Materials 2016	301-3 Reclaimed products and their packaging materials	Not reported, not applicable
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Material Balance Sheet, p. 43; Supplementary tables, p. 59; Conversion factors from several different written sources
GRI 302: Energy 2016	302-2 Energy consumption outside of the organisation	Not reported, data not available
GRI 302: Energy 2016	302-3 Energy intensity	Material Balance Sheet, p. 43
GRI 302: Energy 2016	302-4 Reduction of energy consumption	Not reported, data not available
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Water separates, rinses and cools, p. 42
GRI 303: Water and Effluents 2018	303-2 Management of water-discharge related impacts	Water separates, rinses and cools, p. 42
GRI 303: Water and Effluents 2018	303-3 Water withdrawal	Water separates, rinses and cools, p. 42; Material Balance Sheet, p. 43
GRI 303: Water and Effluents 2018	303-4 Water discharge	Water separates, rinses and cools, p. 42; Material Balance Sheet, p. 43
GRI 303: Water and Effluents 2018	303-5 Water consumption	Water separates, rinses and cools, p. 42; Material Balance Sheet, p. 43
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity, p. 40-41
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	Biodiversity, p. 40-41
GRI 304: Biodiversity 2016	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Biodiversity, p. 40-41
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Material and Energy Efficiency, p. 43; Reporting principles, p. 59; Biogenic emissions account for 139 tCO ₂ e of total emissions
GRI 305: Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	Material and Energy Efficiency, p. 43; Reporting principles, p. 59
GRI 305: Emissions 2016	305-3 Other indirect (Scope 3) GHG emissions	Material and Energy Efficiency, p. 43; Reporting principles, p. 59
GRI 305: Emissions 2016	305-4 GHG emissions intensity	Material and Energy Efficiency, p. 43; Reporting principles, p. 59
GRI 305: Emissions 2016	305-5 Reduction of GHG emissions	Climate chance, p. 41-42, Partially reported
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Material and Energy Efficiency, p. 41-43
GRI 306: Waste 2020	306-2 Management of significant waste-related impacts	Material and Energy Efficiency, p. 41-43
GRI 306: Waste 2020	306-3 Waste generated	Material and Energy Efficiency, p. 43
GRI 306: Waste 2020	306-4 Waste diverted from disposal	Material and Energy Efficiency, p. 43
GRI 306: Waste 2020	306-5 Waste directed to disposal	Material and Energy Efficiency, p. 43

GRI Content index 2022

GRI Standard	Disclosure	Location of disclosure report
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Not reported, data not available
GRI 308: Supplier Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken	Environmental impacts of logistics, p. 44; Environmental impacts from the supply chain, p. 45; Points a, b, d, e not reported, data not available
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Responsibility for Employees, p. 51
GRI 401: Employment 2016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Not reported
GRI 401: Employment 2016	401-3 Parental leave	Supplementary tables, p. 58
GRI 402: Labor management relations	402-1 Minimum notice periods regarding operational changes	We comply with the statutory number of working hours and labour legislation of the applicable country of operation.
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Occupational Health and Safety, p. 46
GRI 403: Occupational Health and Safety 2018	403-2 Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety, p. 46-47
GRI 403: Occupational Health and Safety 2018	403-3 Occupational health services	Occupational Health and Safety, p. 46-47
GRI 403: Occupational Health and Safety 2018	403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety, p. 46-47
GRI 403: Occupational Health and Safety 2018	403-5 Worker training on occupational health and safety	Occupational Health and Safety, p. 46-47
GRI 403: Occupational Health and Safety 2018	403-6 Promotion of worker health	Responsibility for Employees, p. 50-51
GRI 403: Occupational Health and Safety 2018	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Supplier responsibility for logistics, p. 45 and Occupational Health and Safety, p. 46
GRI 403: Occupational Health and Safety 2018	403-8 Workers covered by an occupational health and safety management system	"Occupational Health and Safety, p. 46; Occupational health and safety, environmental and quality management systems, p. 56"
GRI 403: Occupational Health and Safety 2018	403-9 Work-related injuries	Occupational Health and Safety, p.47; Supplementary tables, p. 59
GRI 403: Occupational Health and Safety 2018	403-10 Work-related ill health	Supplementary tables, s. 58
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Responsibility for Employees, p. 51
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	Everyone deserves great leadership, p. 49; Caring is responsibility, p. 50; Our way of working, p. 50-51
GRI 404: Training and Education 2016	404-3 Percentage of employees receiving regular performance and career development reviews	Supplementary tables, p. 58
GRI 404: Training and Education 2016	404-3 Percentage of employees receiving regular performance and career development reviews	Supplementary tables, p. 58
GRI 405: Diversity and Equal Opportunity 2016	405-2 Ratio of basic salary and remuneration of women to men	Responsibility for Employees, p. 50
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Caring is responsibility, p. 50
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Responsibility for Employees, p. 50; No identified risks related to freedom of assembly or collective bargaining in the supply chain
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	No cases or identified risks of child labour in the supply chain
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	No incidents or identified risks related to forced labour in the supply chain
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Sustainable supply chain management, p. 44; https://www.kuusakoski.com/globalassets/global/shared/sustainability/kuusakoski_code_of_conduct_a4_2021-002.pdf
GRI 415: Public Policy 2016	415-1 Political contributions	Public sector and sponsorship p. 55
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	"Managing sustainability and compliance p. 56"

Independent accountant's assurance report to the Management of Kuusakoski

Scope

We have been engaged by Kuusakoski Oy to perform a 'limited assurance engagement,' as defined by International Standards on Assurance Engagements (hereafter referred to as the engagement) on Kuusakoski's selected sustainability indicators listed below and presented in the Annual report 2022 on pages 30-62 from the reporting period 1.1.-31.12.2022 (the "Subject Matter"). The engagement described above does not include future targets.

- GRI 301 Materials 2016 (301-1 and 301-2)
- GRI 302 Energy 2016 (302-1)
- GRI 305 Emissions (305-1, 305-2, 305-3 and 305-4)
- GRI 306 Waste (306-3, 306-4 and 306-5)
- GRI 403-1 Occupational health and safety management system
- LTI, TRI, LTIF, TRIF, high consequence injuries, high consequence injury rate in reference with GRI 403-9 Work-related injuries
- GRI 201-1 Direct economic value generated and distributed
- GRI 205-2 Communication and training about anti-corruption policies and procedures

Criteria applied by Kuusakoski

In preparing the non-financial disclosures and the selected indicators, Kuusakoski applied Global Reporting Initiative (GRI) Sustainability Reporting Standards and Kuusakoski's own reporting principles (the "Criteria"). As a result, the subject matter information may not be suitable for another purpose.

Kuusakoski's responsibilities

Kuusakoski's management is responsible for selecting the Criteria, and for presenting the sustainability disclosures and the selected indicators in accordance with that Criteria for the reporting year 2022, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

Ernst & Young's responsibilities

Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000'), and the terms of reference for this engagement as agreed with Kuusakoski on 20.12.2022. Those standards require that we plan and perform our engagement to obtain limited assurance about whether, in all material respects, the Subject Matter is presented in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error. We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Our Independence and Quality Control

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, and have the required competencies and experience to conduct this assurance engagement.

Ernst & Young also applies International Standard on Quality Control 1, Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the selected sustainability information in 2022 as well applying analytical and other appropriate procedures.

Our procedures included:

- a) gathering an understanding of Kuusakoski's material sustainability reporting topics,
- b) interviews with senior management to understand Kuusakoski's sustainability management,
- c) interviews with personnel responsible for gathering and consolidation of the sustainability information, processes and controls related to gathering and consolidating the information,
- d) assessing sustainability data from internal and external sources and checking the data on a sample basis to check the accuracy of data.

We also performed other procedures we considered necessary in the circumstances.

Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to the sustainability information in the Annual Report 2022 for the period 1.1.-31.12.2022, in order for it to be in accordance with the Criteria.

Helsinki, 13 April 2023

Ernst & Young Oy
Authorized Public Accountant Firm

Juha Hilmola
Authorized Public
Accountant

Nathalie Clément
Leader of Climate and
Sustainability Services

KUUSAKOSKI GROUP

Kuusakoski Group comprises the recycling company Kuusakoski Oy, the foundry company Alteams Oy, and the property companies Jokirantakiinteistöt Oy and Kiinteistö Oy Lahden Norokatu 5. The parent company of Kuusakoski Group is Kuusakoski Group Oy, which is owned in its entirety by the Kuusakoski family. Kuusakoski Oy and its subsidiaries form the recycling business group and Alteams Oy and its subsidiaries the foundry business group.

Consolidated financial result

Kuusakoski Group's result for the financial period was EUR 21.1 million, which is one of the strongest results in the Group's recent history. On the other hand, the result decreased significantly from the previous year's record result due to the weaker result of the recycling business group. The result of the foundry business group turned positive after several years of losses.

Kuusakoski Group posted revenues in 2022 of EUR 759.8 million, which is 6% more than the previous year (717.6 million in 2021, 486.5 million in 2020).

The consolidated operating result was EUR 31.6 million, which represents 4.2% of revenues (51.7 million and 7.2% in 2021, 9.9 million and 2.0% in 2020).

The net result for the financial period after taxes was EUR 21.1 million (40.0 million in 2021, 4.8 million in 2020).

The return on investment (ROI) was 14.1% (24.3% in 2021, 5.5% in 2020) and the return on equity (ROE) 13.3% (29.0% in 2021, 4.0% in 2020).

Revenues from the recycling business accounted for approximately 86% of the Group's consolidated revenues.

Financing and capital expenditure

Kuusakoski Group's cash flow from operating activities before investments totalled EUR 34.2 million (32.8 million in 2021, 31.9 million in 2020) and after investments EUR 6.9 million (14.0 million in 2021, 24.5 million in 2020). The highly volatile price environment made it difficult to manage working capital and inventories during the year under review. The amount of working capital tied to Group activities decreased by EUR 2.7 million compared to the previous year.

The recycling business continued developing its own operations and investing in further processing during the year under review. Investments also increased within the foundry business compared to the previous year. Investments focused on basic repairs and modernisations of existing machinery and equipment, increasing the degree of automation and improving energy efficiency at its plants.

The Group's investments totalled EUR 27.1 million (19.6 million in 2021, 9.3 million in 2020), which represents 3.6% of revenues (2.7% in 2021, 1.9% in 2020).

Kuusakoski Group's liquidity remained good. The total amount of unused committed revolving credit facilities remained at EUR 50 million (50 million in 2021, 50 million in 2020). The Group had no short-term commercial papers issued at the end of the year under review. The three-year refinancing arrangement of the foundry business was finalised during 2022.

The Group's equity ratio at the end of 2022 was 50.2% (47.6% in 2021, 43.7% in 2020). The net gearing ratio at the end of the year was 18.5% (14.0% in 2021, 22.8% in 2020). The amount of net debt increased during the year

under review by EUR 8 million and amounted to EUR 30 million at the end of the year.

The parent companies of the business groups owned by Kuusakoski Group are responsible for their own financing in accordance with the Treasury Policy of Kuusakoski Group. The Treasury Department of Kuusakoski Oy monitors the implementation of the Treasury Policy throughout the entire Group.

The total number of shares in the company is 60,000. All shares have equal voting rights and the right to dividends and the company's assets.

Risks and risk management

The aim of Kuusakoski Group's risk management is to identify the most significant risk factors, taking into account the special features of the business and operating environment, and to manage them optimally so that the Group's strategic and financial objectives are achieved.

Within the recycling business group, work that began in 2021 on updating its risk management process was completed in spring 2022, when the Board of Directors approved it and the new risk management policy was adopted. The updated risk management process is being implemented during 2022 and 2023. The Board of Directors of Kuusakoski Oy supervises the implementation of risk management once and the Management Team of the recycling business group twice a year in accordance with the annual risk management schedule.

The risk management policy of the recycling business is applied to all subsidiaries and employees of the recycling business. The purpose of the risk management policy is to ensure that all operations follow jointly

agreed and approved risk management practices and guidelines. The risk management policy complements corporate governance guidelines, other rules and legislation. The risk management model in use is an application of the ISO 31000 risk management standard. Risks are divided into strategic, operational and financial risks. The main focus of the risk management process is on identifying risks and especially defining management measures, as well as evaluating their effectiveness.

Most of the identified risks in the recycling business are operational by nature. Operational risks affect employees, operations, production, property and information systems. When realised, operational risks weaken the company's ability to offer services and products to customers, endanger the safety and wellbeing of its employees and partners, and damage the company's reputation. The most significant operational risks identified in the risk management work are the depletion in the supply of raw materials, financial difficulties for end customers, criminal extortion and fires.

Strategic risks, when realised, can endanger the achievement of short-term or long-term goals. The most significant identified strategic risks are rapid changes in the operating environment, legislative changes, economic crises and poor strategic choices.

The purpose of financial risk management is to protect against risks that may affect the group's liquidity, receivables, the costs of the assets it uses, and the availability and costs of financing. The most significant financial risks identified are the increase in the price of production excipients and freight costs, as well as supply problems, rapid changes in raw material prices and contractual risks.

The key elements of the risk management policy for the foundry business group are the identification, assessment and minimisation of business-related risks. The goal of this policy is to help anticipate threats and opportunities and thereby ensure business continuity.

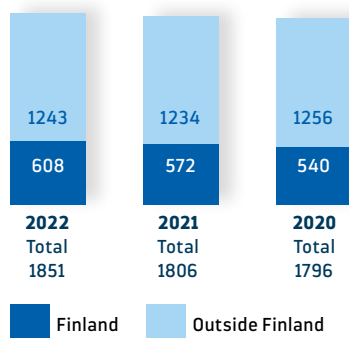
The foundry business group has a few large customers on which it is relatively dependent. The development of possible substitute manufacturing technologies and materials is actively monitored. The group operates internationally and its business involves financial risks arising from exchange rate fluctuations, which it seeks to hedge against by means of forward foreign exchange contracts or other similar instruments.

Changes in group structure

There were no changes in group structure within Kuusakoski Group during the year under review.

Personnel

At the end of the year under review, the Group had 1,851 employees.



The number of personnel increased by 37 in the recycling business group and 8 in the foundry business group. The increase in the number of personnel in the recycling business group occurred mainly in the Finnish, Swedish and UK business units, while the number of personnel decreased in the USA.

The total sum of salaries, wages and rewards paid to personnel during the year under review in Kuusakoski Group was EUR 66.6 million (63.6 million in 2020, 58.2 million in 2020).

Kuusakoski Oy and its subsidiaries form the recycling business group, i.e. Kuusakoski Recycling.



RECYCLING BUSINESS GROUP

Market situation and business performance

The result posted by the recycling business group for the 2022 financial year is one of the strongest in recent years and the second strongest over the past decade. On the other hand, the result of the recycling business decreased significantly from the previous year's record result. The year under review for the recycling business was two-sided. The 2022 financial year began as the record year of 2021 ended. The first half of the year was strong for the company, as metal prices increased and demand was at a high level. However, at the end of the first half of the year, global market prices

for metals collapsed, and global economic uncertainty and rising energy and fuel prices were reflected in the company's business performance.

The general recovery of the global economy from the coronavirus pandemic was apparent in the recycling business at the end of 2020, when global market prices and demand for metals strengthened significantly. Prices continued to strengthen all the way into 2022 and accelerated following the Russian invasion of Ukraine in February 2022. The price levels of many of the recycling business's most important metals were at record high levels in spring 2022. However, global market prices for metals fell rapidly

in April-June 2022 due to global economic uncertainty and the energy crisis. Metal prices fluctuated at record levels in 2022. For example, the price per tonne of iron scrap fluctuated between USD 294 and 622, while that of nickel fluctuated between USD 20,100 and 42,990 during the year under review. However, average prices for the recycling business's most important metals remained at the same level as in the previous year. The average price of nickel was an exception to this, as it was 38% higher than in the previous year. Despite the major fluctuations during the year under review, metal prices continued to be at a historically strong level at the end of the year.

The war in Ukraine has not had a direct impact on the group's business. Kuusakoski Recycling has not had business in Russia since 2020. However, the effects of the war in Ukraine have been reflected in the company through global market prices for metals and increased energy and fuel costs. The increased costs had significant direct and indirect effects on the company's financial result. The coronavirus pandemic did not significantly impact the group's operations during the year under review.

The revenues of the recycling business group amounted to EUR 656.7 million (625.9 million in 2021, 415.2 million in 2020), representing an increase of 5% compared to the previous year. The increase in revenues was primarily due to higher metal prices, as the total amount of recycled materials actually decreased slightly compared to the previous year. The operating profit amounted to EUR 27.9 million (51.5 million in 2021, 14.6 million in 2020), representing 4.3% of revenues (8.2% in 2021, 3.5% in 2020). The decline in the business result compared to the previous year was influenced by slower customer demand towards the end of the year, increased production and logistics costs, and a decrease in inventory margins as prices fell at the end of the first half of the year.

The return on investment (ROI) was 14.3% (30.3% in 2021, 4.4% in 2020). The net result was EUR 16.5 million (38.4 million in 2021, 1.6 million in 2020), which represents 2.5% of revenues (6.1% in 2021, 0.4% in 2020). The net result includes EUR 2.4 million in Group contributions to other group companies.

Sustainability

In accordance with the company's strategy, Kuusakoski invests in serving key customers in both domestic and international markets.

This entails developing its own processes and end products to meet the needs of key customers now and in the future. At the same time, the company is preparing for the ongoing green transition of industry by taking the new requirements into account in its future investments and decisions.

In the field of sustainability, the recycling business group developed its operations significantly in 2022. The most significant single action was setting climate goals for its own operations. Despite operating in an industry that saves virgin raw materials and climate emissions, and annually producing many times more CO₂ savings than emissions, the company felt it was important to also strive to become carbon neutral itself. In accordance with the set goals, the operations of the recycling business will be carbon neutral by 2035 and the entire value chain by 2045.

As part of this sustainability work, a comprehensive Sustainability Report will be published in connection with the 2022 Annual Report covering Kuusakoski's recycling business and with reference to the GRI reporting standards for the second year in a row. The 2022 Sustainability Report has been prepared based on the definition of double-materiality and selected sustainability indicators have been assured by the Group's auditor. The main themes of the Sustainability Program in 2022 were: proactive partnership with customers, occupational safety and well-being of employees, continuous improvement of sustainable business, and material and energy efficiency.

One of the strategic goals of the recycling business group is to be a leader in the field of occupational health and safety. Our target is to achieve zero occupational accidents. The systematic and long-term development of occupational safety produced good results. The proactiveness of employees in reporting safety deficiencies and helping to prevent accidents has steadily increased in recent years. In 2022, a record number of safety observations, over 2700, were made by employees. The frequency of accidents leading to absences decreased by 38 percent compared to the previous year. The lost time injury frequency (LTIF) rate per million hours was 11.9 at the end of 2022 (19.2 in 2021).

A lot of attention was paid again to further improving fire safety. Investments were made in emergency firefighting equipment and the firefighting skills of employees at several Kuusakoski locations. Additional heat cameras were installed in Sweden and



IN FINLAND, the profitability of the recycling business decreased significantly compared to the previous year. Finland retained its central position in terms of generating results in the recycling business in 2022. The result of the recycling business in Finland was weakened by the development of metal prices and the start of investments.



IN SWEDEN, the result of the recycling business was the best in the company's history. The good result was due to strong domestic demand and investments in internal processes and increasing the degree of further processing.



IN ESTONIA, the company's result was slightly negative. It weakened significantly compared to the previous year, when a record high result was posted. The company's result was weakened by the development of metal prices and dependency on export markets.

Finland to facilitate the detection of ignitions in piles of materials. In Finland, the fire work procedure was updated to further reduce the risk of ignitions during welding or other work with heat, open flame or sparks.

During 2022, external audits were conducted for operations at different country units of the recycling business group in accordance with the ISO 9001 quality management system, the ISO 14001 environmental management system and the ISO 45001 occupational health and safety management system. Internal audits of environmental, occupational health and safety, and quality management systems were conducted according to schedule.

Research and development

The partner strategy of the recycling business has also been reflected in the company's research and development activities. Regular and close cooperation was carried out both within the company and with external stakeholders and partners, such as research institutes and equipment manufacturers. The



IN THE UK, Kuusakoski Ltd, which specialises in processing stainless steel in Sheffield, continued its close collaboration with customers in accordance with its strategy. The company posted a positive result, as in previous years. The operating result of the WEEE joint venture SWEEEP Kuusakoski Ltd in Kent was also again positive, even though the recycling rate for waste electrical and electronic equipment in society has not returned to the levels that preceded the coronavirus pandemic.



IN THE USA, Kuusakoski focuses on WEEE recycling. The operating result in the USA decreased significantly compared to the previous year and was negative. Joint legal action against the company was settled during the year under review.

company's customer focus was also clearly visible in the operations of its research and development unit. In addition to production and product development, R&D participated in the development of services and customer cooperation, for example in the form of various recyclability and emissions reports. In addition, R&D personnel were involved in various process innovations during the year under review. These have led to ongoing and future investment projects that will respond to changes in material flows and customer needs in the future.

Operations at the Kuusakoski Research Centre and laboratory in Lahti were guided by the growing need for reliable material information. The number of recycled fractions and samples to be analysed has continued to grow. In addition to internal research and development work, the services of the Kuusakoski Research Centre were also utilised for various customer needs in sample preparation, metal analysis and solid recycled fuel research.

FOUNDRY BUSINESS GROUP

Alteams Oy and its subsidiaries form the foundry business group.

Market situation and business development

The revenues of the foundry business group increased by 14% in 2022 compared to the previous year and amounted to EUR 109.1 million (96.0 million in 2021, 76.4 million in 2020). Approximately 4% of the increase in revenues was due to higher raw material prices and 4% to exchange rate fluctuations. Sales in the communications network segment decreased slightly, but sales in both the electric vehicle and industrial applications segments increased among all key customers.

Global market prices for raw materials stabilised during the year after peaking in the spring but remained at a high level. In Europe, the cost inflation of other production factors, especially energy, was high. However, it was possible to transfer the increased costs to customer prices and thereby ensure a positive profitability trend.

The coronavirus pandemic that began in early 2020 continued to have an impact in 2022 and caused intermittent regional challenges for the group's business. The Russian war of aggression against Ukraine, which started at the beginning of the year, has not had any significant direct impacts on the company's operations with the exception of the higher energy prices caused by it.

The group's operating result turned positive and amounted to EUR 3.9 million (-0.2 million in 2021, -4.3 million in 2020), which represents 3.6% of revenues (-0.2% in 2021, -5.8% in 2020). The result before appropriations and taxes was EUR 3.2 million (-1.1 million in 2021, -5.0 million in 2020). The group's net result was EUR 4.8 million (1.3 million in 2021, 3.5 million in 2020). The result before taxes and the net result includes a Group contribution of EUR 2.4 million (2.7 million in 2021, 8.7 million in 2020). The return on equity (ROE) was 22.0% (5.5% in 2021, 14.3% in 2020). The strong improvement in the result was due to improved profitability within all units of the foundry business group.



IN CHINA, customer demand was at a good level, and the factory was able to respond to it successfully. In the spring, strict restrictions related to the coronavirus pandemic caused challenges, for example in the availability of components and logistics, as well as interruptions in the operations of subcontractors. At the end of the year, almost all restrictions were removed, which caused a momentary peak in the frequency of sick leave.



IN POLAND, the availability of additional labour remained challenging at the start of the year, and there was a high level of employee turnover. The situation improved in the second half of the year and enabled production volumes to be increased. The company's profitability improved significantly, and the operating margin turned positive.



IN FINLAND, customer demand and orders continued to be strong. The result developed positively but still fell short of expectations.



IN INDIA, the revenues and profitability of the group's joint venture developed strongly. Interest in India as a manufacturing location has continued to grow as the global market environment changes.

Sustainability

EcoVadis, a collaborative platform that provides Supplier Sustainability Ratings for global supply chains, evaluated the foundry business during the year under review. Alteams managed to improve its scores and achieve Silver Medal status, placing it in the top quarter of all evaluated companies. The foundry business aims to halve CO2 emissions from the level of 2019 by 2030, and it achieved the intermediate targets that had been set.

The foundry business group continued to systematically develop occupational safety. Especially in China and Poland, occupational safety aspects have improved significantly.

Research and development

Waste heat management and reducing the weight of products continued to play an important role in the company's R&D projects.

In order to reduce the weight of products, the use of a new type of casting solution has been successfully studied and the casting of ever thinner wall thicknesses has been tested. By developing lubrication in the casting process, significant cost savings have been achieved and the production of thinner walls has also been made possible.

In order to improve cooling capacity, the use of advanced cooling methods has been investigated. Further studies will continue in 2023.

The foundry business group's management system is based on the international quality management standards ISO 9001 and TS 16949. Its environmental management system is based on the ISO 14001 standard. The automotive industry's IATF 16949 standard is also used by the company in China, Poland, Finland (Laihia) and India. ●

REFINING BELIEF IN THE FUTURE



Alteams is a leading expert in high-quality cast aluminium components whose products are enabling the growth and development of electric vehicles, telecommunication networks and many other industrial sectors.



Alteams

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Kuusakoski Group prospects for 2023

Regarding the recycling business group, the market situation is expected to remain moderate at the start of 2023. Metal prices are expected to remain at a historically high level, albeit lower than in previous years. The outlook for the recycling business after the first quarter is uncertain, both for us and among our end customers. The slowdown in global economic growth and the resulting uncertainty in raw materials markets and economic activity are considered the biggest threats to 2023. In accordance with its strategy, the company continues to focus on green transition investments in order to meet the needs of domestic customers both now and in the future.

Regarding the foundry business group, revenues and profitability in 2023 are expected to remain at the same level as in 2022.

Events after the financial period

The company has not faced any significant events after the end of the financial period.

Proposal of the Board

The distributable funds of Kuusakoski Group Oy amount to EUR 104.7 million, of which the net profit for the financial year accounts for EUR 10.5 million.

The Board of Directors proposes to the Annual General Meeting that the distributable funds be used as follows:

For payment of a dividend of EUR 93.00 per share EUR 5.6 million
To be retained in shareholders' equityEUR 99.2 million
TotalEUR 104.7 million

In addition, the Board of Directors requests authorisation from the Annual General Meeting to decide on a maximum additional dividend of EUR 67 in the second half of the year should the Board of Directors consider that the company's earnings forecast, market outlook and liquidity allow it.

No significant changes have occurred in the company's financial position after the end of the financial year. The company's liquidity is good, and in the view of the Board the proposed distribution of funds does not risk the company's financial standing.

Organisation, management and auditor

The Members of the Board elected by the Annual General Meeting on 28 April 2022 comprise **Johan Kronberg, Veikko Kuusakoski, Mariella Kuusakoski-Toivola, Lauri Peltonen** and **Arno Pelkonen**. **Tapio Kuusakoski** and **Tiina Orasaari** have served as deputy members. **Johan Kronberg** has served as Chairman of the Board.

Authorised Public Accountants Ernst & Young Oy has acted as the company's regular auditor and Authorised Public Accountant **Juha Hilmola** as the responsible auditor. Veikko Kuusakoski has served as CEO of Kuusakoski Group Oy.

Espoo, 5 April 2023

Johan Kronberg, Chairman of the Board
 Veikko Kuusakoski
 Mariella Kuusakoski-Toivola
 Lauri Peltonen
 Arno Pelkonen



KUUSAKOSKI
RECYCLING



Since 2000, the Rafael Kuusakoski Memorial Fund has supported young researchers in projects focusing especially on birds and other biota, the marine environment, the climate and the landscape of the Baltic Sea. In 2022, the fund awarded a total of 29,000 euros in grants to six separate projects.



We delivered

943,362

tonnes of recycled metal raw materials to our customers in 2022.

ACCOUNTING PRINCIPLES

Consolidated Financial Statements

The consolidated financial statements and those of the parent company Kuusakoski Group Oy have been prepared in accordance with the Finnish Accounting Act.

The consolidated financial statements include the parent company, as well as companies in which the parent company directly or indirectly held more than 50 percent of the voting rights at the end of the financial year or in which the parent company has the power to exercise control.

All inter-company receivables and liabilities, internal margins and the effects of other internal transactions have been eliminated. Share ownership has been eliminated using the acquisition cost method. The difference between the acquisition cost and the equity of subsidiary companies at the time of acquisition is presented as goodwill. Goodwill is depreciated on a straight-line basis over 5 years.

Minority interests are separated from the Group's result and shareholders' equity and presented as separate items in the consolidated income statement and balance sheet.

The financial information of associated companies is included in the consolidated financial statements using the equity method. The Group's share of the results in associated companies is presented in the financial items. Similarly, the Group's share of the shareholders' equity of associated companies is presented in the balance sheet as the value of the shares and any possible goodwill. Associated companies are companies in which the parent company held 20 to 50 percent of the voting rights at the end of the financial year.

Revenue Recognition

Revenue from sales of products and services is reported as net sales adjusted for indirect taxes, discounts and exchange rate differences on foreign currency sales. The recycling business group sells recycled metal and other recycled materials and offers various recycling services to its customers. Income from material sales is recorded when the product is delivered to the customer under the terms of delivery and the risks and benefits associated with it have been transferred to the recipient. Revenue from services is recognised when the service has been performed.

The foundry business group sells aluminium castings to its customers, as well as the tools used to manufacture their products. Income from product sales is recorded when the product is delivered to the customer under the terms of delivery. Income from tool projects is recorded on a billing basis in accordance with the terms of the customer agreement. Specific margins for projects are recognised at the end of each project. Anticipated losses from non-profitable projects are recognised as an expense in their entirety.

Foreign Currency Items

Foreign currency receivables, liabilities and commitments are valued according to the European Central Bank's average exchange rates on the closing date. Currency derivatives are valued at market value on the closing date, and profits and losses are charged to the appropriate items in the income statement.

The balance sheets of non-Finnish subsidiaries are translated into euros at the average exchange rate on the closing date and their income statement at the average of the monthly average exchange rates for the financial year. Exchange rate differences arising from translating shareholders' equity are presented in retained earnings.

Research and Development Costs

Research and development costs are charged to the income statement as annual costs.

Inventories

Inventories are presented in the balance sheet at the lower of cost or net realisable value; they are calculated using the FIFO method as the amount of the variable costs arising from acquisition and manufacturing, or the probable sales price. In addition to variable costs, the value of inventories includes fixed costs arising from acquisition and manufacturing.

Fixed assets and depreciation

The balance sheet values of tangible and intangible fixed assets are based on their original acquisition costs, less accumulated depreciation. The acquisition cost of assets manufactured by the company includes variable manufacturing costs.

Straightline depreciation is made according to the plan for depreciation, which is based on the estimated useful economic life of the assets.

Estimated useful economic life of fixed assets:

Intangible assets	3–5 years
Goodwill	5–10 years
Other long-term expenditure	5 years
Buildings and structures	10–30 years
Machinery and equipment	5–12 years
Other tangible assets	5–20 years

The reducing balance method according to the Finnish Business Income Tax Act is applied to the straightline depreciation of Kivikolmio Oy.

Financial Assets

Financial assets are valued according to their acquisition cost or the probable sales price.

Pension Arrangements

Pension costs for Group companies outside Finland are calculated in accordance with local legislation and practice and recorded in the consolidated financial statements. Pension obligations for Group personnel in Finland are covered through payments to pension insurance institutions.

Deferred Taxes

Deferred tax liabilities and assets in the consolidated financial statements are calculated for temporary differences between the tax basis of assets and liabilities and their carrying amounts for financial reporting purposes using the official tax rate confirmed on the balance sheet date for the following financial periods.

Taxation requirements in Finland and certain other countries allow companies to reduce or increase their taxable income through appropriations. Any increase or reduction in these is recorded in the income statement as a change in appropriations, with the counterentry in the balance sheet appropriations. In the consolidated financial statements, appropriations are divided between the result for the year, accumulated reserves and deferred tax liability.

Recognition and Measurement of Derivative Instruments

Derivative instruments include currency options, forward foreign exchange contracts, interest rate swaps and commodity derivatives as part of an overall risk management policy. Currency options and forward foreign exchange contracts are used to reduce anticipated foreign currency risks related to sales and purchases. Section 5:2a of the Finnish Accounting Act is applied to derivatives. Derivatives are valued in principle at market value on the closing date, and their changes in value are recorded in the income statement. The fair value of derivatives can also be presented outside the balance sheet in the notes using hedge accounting if the cash flows of the hedged item and the hedging instrument can be shown to be completely identical by means of an efficiency calculation. The change in value of electricity derivatives is recorded only in the notes to the consolidated financial statements.

Environmental Provisions

Kuusakoski Oy's location-specific environmental permit regulations are complied with closely and monitored throughout the financial year. Upcoming environmental investments and any possible soil cleaning provisions for land on which operations are to be discontinued and that are located on leased plots or that are subject to other restoration requirements are recorded in the financial statements as mandatory provisions.

AUDITOR'S REPORT

TO THE ANNUAL GENERAL MEETING OF
KUUSAKOSKI GROUP OY

Report on the Audit of Financial Statements**Opinion**

We have audited the financial statements of Kuusakoski Group Oy (business identity code 0200662-5) for the year ended 31 December 2022. The financial statements comprise the balance sheets, the income statements, cash flow statements and notes for the group as well as for the parent company.

In our opinion, the financial statements give a true and fair view of the group's and the company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of Financial Statements section of our report. We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of Financial Statements

Our objectives are to obtain reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

— Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.

— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

— Include on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.

— Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.

— Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Other Reporting Requirements**Other Information**

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors. Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. Our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed, we conclude that there is a material misstatement in the information included in the report of the Board of Directors, we are required to report this fact. We have nothing to report in this regard.

Other opinions

We support the adoption of the financial statements. The proposal by the Board of Directors regarding the treatment of distributable profit is in compliance with the Limited Liability Companies Act. We support that the Board of Directors of the parent company and the Managing Director be discharged from liability for the financial period audited by us.

Helsinki, 5 April 2023

Ernst & Young Oy
Juha Hilmola,
Authorised Public Accountant

CONSOLIDATED INCOME STATEMENT		
EUR million	2022	2021
Revenues 1)	759.8	717.6
Other operating income 2)	1.5	1.9
Materials and services 3)	564.0	513.3
Personnel expenses 4)	79.0	75.1
Depreciation and write-downs 6)	16.6	16.3
Other operating expenses	70.1	63.2
	729.7	667.8
Operating profit	31.6	51.7
Financial income and expenses 7)	-2.9	-1.1
Profit before taxes	28.6	50.5
Income taxes 8)	-6.5	-9.2
Minority interest	-1.0	-1.3
Net profit for the financial year	21.1	40.0

CONSOLIDATED BALANCE SHEET		
EUR million	2022	2021
ASSETS		
Non-current assets 9)		
Intangible assets	3.5	3.6
Tangible assets	123.7	114.5
Investments	7.4	6.4
	134.6	124.5
Current assets		
Inventories 10)	79.3	85.8
Long-term receivables	0.1	0.1
Short-term receivables 11)	65.4	73.2
Cash and cash equivalents	41.1	45.8
	185.9	204.9
	320.5	329.4
SHAREHOLDERS' EQUITY AND LIABILITIES		
Equity and reserves 12)		
Share capital	0.1	0.1
Share premium fund	0.2	0.2
Retained earnings	136.6	113.9
Net profit for the financial year	21.1	40.0
	158.0	154.2
Minority interest	2.2	1.9
Obligatory provisions 13)	9.3	10.6
Liabilities 14)		
Non-current liabilities	44.3	50.8
Current liabilities	106.6	111.9
	150.9	162.7
	320.5	329.4

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION		
EUR million	2022	2021
Cash flow from operations		
Profit (loss) before appropriations and taxes	28.6	50.5
Adjustments:		
Depreciation and write-downs	16.6	16.3
Gains (-) and losses (+) on fixed assets	0.2	0.2
Share of results of associated companies, gains (-) and losses (+)	-1.5	-1.8
Unrealised exchange rate profits and losses	-0.5	0.2
Financial income and expenses	4.5	3.0
Cash flow before change in working capital	47.9	68.4
Change in working capital		
Increase (-), decrease (+) in inventories	4.9	-26.5
Increase (+), decrease (-) in non-interest-bearing trade receivables	8.7	-19.2
Increase (+), decrease (-) in non-interest-bearing liabilities	-10.9	14.7
Cash flow from operations before financial items and taxes	50.6	37.4
Interest paid and other financial expenses	-4.9	-3.5
Dividends received	0.4	0.4
Interest received	0.4	0.3
Taxes	-12.3	-1.8
Cash flow from operations	34.2	32.8
Cash flow from investments		
Investments in tangible and intangible assets	-27.1	-19.6
Sold shares in subsidiaries	0.0	0.8
Investments in associated companies	-0.3	0.0
Cash flow from investments	-27.4	-18.8
Cash flow from financing		
Increase (+), decrease (-) in non-current liabilities	15.5	-3.2
Increase (+), decrease (-) in current liabilities	-12.9	-3.6
Dividend distribution	-13.6	-7.8
Cash flow from financing	-11.0	-14.5
Change in cash and cash equivalents	-4.2	-0.5
Cash and cash equivalents 1 Jan	45.8	46.0
Effect of exchange rate changes	-0.5	0.3
Cash and cash equivalents 31 Dec	41.1	45.8

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS		
EUR million	2022	2021
INCOME STATEMENT		
1. Revenues by business sector and market area		
Revenues by business sector		
Recycling	650.7	621.6
Foundries	109.0	96.0
Total	759.8	717.6
Revenues by market area		
Finland	177.9	175.2
Other Europe	439.5	368.2
Asia	120.1	149.2
Other areas	22.4	25.0
Total	759.8	717.6
2. Other operating income		
Gains on sale of fixed assets	0.2	0.3
Other operating income	1.3	1.6
Total	1.5	1.9
3. Materials and services		
Materials, goods and supplies		
Purchased during the financial year	460.1	442.8
Increase(-),decrease (+) in inventories	4.9	-26.9
	464.9	415.9
Outside services	99.1	97.4
Total	564.0	513.3
4. Personnel expenses		
Wages and salaries	66.6	63.6
Pension expenses	7.0	6.2
Other personnel expenses	5.4	5.3
Total	79.0	75.1

Salaries and remuneration to senior management		
Managing Directors and Members of the Board of Directors	3.5	2.9
Group management had no loans from the parent company.		
Average number of personnel		
Wage earners	1,304	1,282
Salaried employees	557	532
Total	1,861	1,814
5. Auditor's fees		
Auditing	0.4	0.3
Other services	0.1	0.1
Total	0.5	0.4
6. Depreciation and writedowns		
Planned depreciation, intangible	0.5	0.5
Planned depreciation, tangible	16.1	15.7
Write-downs	-0.1	0.1
Total	16.6	16.3
7. Financial income and expenses		
Income from associated companies	1.5	1.8
Other interest and financial income, from others	0.4	0.2
Other interest and financial expenses, to others	4.9	3.1
Total financial expenses and expenses	-2.9	-1.1
Foreign currency exchange differences included in total financial income and expenses	0.0	0.3
8. Income taxes		
Income taxes payable from current and previous tax years	5.1	7.3
Change in deferred tax liability	1.2	1.8
Other direct taxes	0.3	0.1
	6.5	9.2

EUR million											
BALANCE SHEET, ASSETS	Acquisition cost 1 Jan 2022	Translation difference	Increases	Decreases	Re-classifications	Accumulated depreciation 1 Jan 2022	Translation adjustment	Accumulated depreciation on decreases	Depreciation for the financial year	Write-downs	Total 31 Dec 2022
9. Non-current assets											
Intangible assets											
Intangible rights	2.4	0.0	0.0	-0.2	0.0	-1.3	0.0	0.1	0.0	0.0	1.0
Goodwill	54.7	-0.2	0.0	0.0	0.0	-54.7	0.2	0.0	0.0	0.0	0.0
Other intangible assets	17.4	0.0	0.2	-0.1	0.0	-14.8	0.0	0.1	-0.5	0.0	2.2
Capital work in progress	0.0	0.0	0.3	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.3
Total	74.5	-0.2	0.5	-0.3	0.0	-70.9	0.2	0.2	-0.5	0.0	3.5
Tangible assets											
Land	7.8	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	8.4
Buildings and structures	113.0	0.0	0.8	-0.9	1.2	-64.4	0.2	0.7	-3.9	0.0	46.8
Machinery and equipment	237.0	-5.7	5.3	-5.4	10.6	-189.3	4.5	5.4	-11.7	0.1	50.6
Other tangible assets	6.9	0.1	0.4	-0.4	0.0	-5.5	0.0	0.3	-0.5	0.0	1.3
Capital work in progress	8.5	-0.3	20.6	0.0	-12.1	0.0	0.0	0.0	0.0	0.0	16.6
Total	373.1	-6.0	27.6	-7.3	-0.2	-258.6	4.7	6.4	-16.1	0.1	123.7
Investments											
Shares in associated companies	6.3	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
Other shares and shareholdings	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	6.4	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4
Total non-current assets	454.0	-5.8	28.7	-7.6	-0.2	-329.5	4.9	6.6	-16.7	0.1	134.6

M€	2022	2021
10. Inventories		
Materials and supplies	51.0	58.4
Finished goods	28.4	27.1
Advance payments	-0.1	0.2
	79.3	85.8
11. Current receivables		
Long-term receivables		
Deferred tax liabilities	0.1	0.1
Short-term receivables		
Deferred tax liabilities	2.4	2.8
Trade receivables	53.0	63.6
Other receivables	3.4	2.6
Accrued income	6.6	4.2
	65.4	73.2
Balance sheet, assets		
12. Shareholders' equity		
Share capital	0.1	0.1
Share premium fund	0.2	0.2
	0.3	0.3
Retained earnings 1 Jan	153.9	118.9
Dividends paid	-13.0	-7.2
Translation adjustment	-3.8	2.2
Retained earnings 31 Dec	137.1	113.9
Net profit for the financial year	21.1	40.0
Other direct entries to retained earnings	-0.4	0.0
Total retained earnings	157.7	153.9
Total	158.0	154.2
13. Provisions		
Environmental provisions	7.6	7.3
Other provisions	1.7	3.3
Total	9.3	10.6
14. Liabilities		
Non-current liabilities		
Loans from financial institutions	38.8	46.2
Deferred tax liabilities	5.5	4.5
Other non-current liabilities	0.1	0.0
Total non-current liabilities	44.3	50.8
Current liabilities		
Loans from financial institutions	25.2	16.4
Advances received	1.2	1.7
Trade payables	50.4	55.1
Other current liabilities	10.5	8.3
Accrued expenses	18.7	29.7
Deferred tax liabilities	0.7	0.6
Total current liabilities	106.6	111.9

M€	2022	2021
Main items in accrued expenses		
Accrued personnel expenses	9.9	10.6
Taxes	1.7	6.0
Accrued financial expenses	0.2	0.2
Other	6.9	12.9
	18.7	29.7
OTHER NOTES		
15. Collateral given		
Liabilities for which collateral given		
Loans from financial institutions	20.4	2.9
Mortgages given as collateral		
Business mortgages	46.8	0.0
Book value of pledged shares	5.5	0.5
16. Contingent liabilities		
Leasing and rental liabilities		
Payable within one year	8.2	7.9
Payable after one year	24.9	18.8
Total leasing and rental liabilities	33.1	26.8
Guarantees given on behalf of companies belonging to the same group	11.5	11.5
Other guarantees	6.4	5.2
Total contingent liabilities	51.0	43.5
17. Derivative instruments		
Open derivative instruments 31 Dec 2022		
Forward foreign exchange contracts		
Fair value	0.0	0.4
Contract amounts	15.6	32.5
Change in value marked to the Income Statement	-0.4	0.2
Electricity derivatives		
Fair value	0.0	0.7
Contract amounts	0.0	0.9
Interest rate swaps		
Fair value	0.1	0.0
Contract amounts	9.0	0.0
Forward foreign exchange contracts, currency options and metal options have been made for hedging purposes, and they have been booked for the most part as a gain or loss in the financial statements at their fair value. Exercised and terminated electricity derivatives have been booked in the income statement upon their termination. The values of open agreements are not booked in the balance sheet but are instead listed here. At the end of the financial year the Group had open forward foreign exchange contracts - there were no open electricity derivative contracts. All open forward foreign exchange contracts and metal options mature within 12 months. The interest rate swaps valid at the end of the financial year were made to hedge against the interest rate risks of variable-rate bank loans. The interest rate swaps have been accounted for as hedges and will mature during the 2023-2025 financial period.		

18. Group holdings in other companies			
	Country	Group Share-holding %	Parent Company Share-holding %
GROUP COMPANIES			
Alteams Oy	Finland	100	100
Alteams Finland Oy	Finland	100	
Jokirantakiinteistöt Oy	Finland	100	100
Kivikolmio Oy	Finland	100	
Kuusakoski Oy	Finland	100	100
Koy Lahden Norokatu 5	Finland	100	100
Revanssi Oy	Finland	51	
Alteams Eesti Oü	Estonia	100	
Alteams Japan K.K.	Japan	100	
Alteams Poland Sp.zo.o	Poland	100	
Alteams Stilexo AB	Sweden	100	
Alteams Suzhou Co. Ltd.	China	100	
Alteams Suzhou Industrial Technology Co. Ltd.	China	100	
Crown Works Ltd	UK	100	
Kuusakoski AS	Estonia	100	
Kuusakoski Glass Recycling LLC	USA	100	
Kuusakoski Inc	USA	100	
Kuusakoski Ltd	UK	100	
Kuusakoski Poland Sp.zo.o	Poland	100	
Kuusakoski Sverige AB	Sweden	100	
Kuusakoski US LLC	USA	100	
SWEEEP Kuusakoski Ltd	UK	61	
Vintage Tech LLC	USA	100	
ASSOCIATED COMPANIES			
Suomen Erityisjäte Oy	Finland	49	
Sähkö-Saarnikannas Oy	Finland	20	
Ashley Alteams India Private Limited	India	50	

KEY FIGURES					
	2022	2021	2020	2019	2018
Group key financial indicators					
Revenues, MEUR	759.8	717.6	486.5	517.5	610.8
Exports and sales outside Finland, MEUR	581.9	542.4	384.3	398.1	478.4
% of revenues	76.6	75.6	79.0	76.9	78.3
Operating profit, MEUR	31.6	51.7	9.9	-1.3	11.4
% of revenues	4.2	7.2	2.0	-0.2	1.9
Net financing expenses (excluding exchange rate differences), MEUR	3.0	1.4	2.0	4.8	3.5
% of revenues	0.4	0.2	0.4	0.9	0.6
Profit before taxes, MEUR	28.6	50.5	7.4	-5.8	6.7
% of revenues	3.8	7.0	1.5	-1.1	1.1
Return on equity (ROE), %	13.3	29.0	4.0	-5.6	2.7
Return on investment (ROI), %	14.1	24.3	5.5	-0.7	2.9
Equity ratio, %	50.2	47.6	43.7	42.9	42.8
Interest-bearing debt, MEUR	70.7	67.6	73.4	88.1	91.2
Net debt, MEUR	29.6	21.8	27.4	49.7	39.7
Net gearing, %	18.5	14.0	22.8	41.7	30.8
Investments, MEUR	27.1	19.6	9.3	20.3	17.5
% of revenues	3.6	2.7	1.9	3.9	2.9
Number of personnel (average)	1,861	1,814	1,934	2,095	2,420
Information per share					
Number of shares	60,000	60,000	60,000	60,000	60,000
Net profit per share, EUR	350.9	666.9	80.6	-115.7	58.8
Equity per share, EUR	2,633.2	2,570.7	1,986.4	1,970.9	2,127.2
Dividend per share, EUR	93.0	217.0	120.0	55.0	50.0
Dividend as % of net profit	26.5	32.5	74.4	-47.6	85.0

PARENT COMPANY INCOME STATEMENT		
EUR million	2022	2021
Revenues	1.1	1.1
Other operating income	1.2	1.2
Personnel expenses	0.6	0.6
Depreciation and write-downs	0.0	0.0
Other operating expenses	2.1	1.5
Operating profit	-0.4	0.3
Financial income and expenses	10.9	8.8
Profit before appropriations and taxes	10.5	9.1
Income taxes	0.0	0.1
Net profit for the financial year	10.5	9.0

PARENT COMPANY BALANCE SHEET		
EUR million	2022	2021
ASSETS		
Fixed assets and other long-term investments		
Non-current assets	0.0	0.0
Tangible assets	1.1	1.1
Investments	95.9	95.9
	96.9	96.9
Current assets		
Long-term receivables	8.3	6.6
Short-term receivables	2.0	10.2
Cash and cash equivalents	7.5	26.5
	17.7	43.4
SHAREHOLDERS' EQUITY AND LIABILITIES	114.6	140.3
Shareholders' equity		
Share capital	0.1	0.1
Share premium fund	0.2	0.2
Retained earnings	94.3	98.3
Net profit for the year	10.5	9.0
	105.0	107.6
Liabilities		
Non-Current liabilities	1.9	2.4
Current liabilities	7.8	30.3
	9.6	32.7
	114.6	140.3

NOTE TO PARENT COMPANY FINANCIAL STATEMENT		
EUR million	2022	2021
Specification of shareholders' equity		
Share capital	0.1	0.1
Share premium fund	0.2	0.2
Retained earnings on 1 Jan	107.3	105.5
Dividends paid	-13.0	-7.2
Retained earnings on 31 Dec	94.3	98.3
Net profit for the financial year	10.5	9.0
Total retained earnings	104.7	107.3
Total	105.0	107.6
Parent company's distributable funds	104.7	107.3

CORPORATE GOVERNANCE

Kuusakoski Group comprises the recycling company Kuusakoski Oy, the foundry company Alteams Oy, and the property companies Jokirantakiinteistöt Oy and Kiinteistö Oy Lahden Norokatu 5. The parent company of Kuusakoski Group is Kuusakoski Group Oy, which is owned in its entirety by the Kuusakoski family.

General Meeting

Kuusakoski Group Oy's highest governing body is the General Meeting. It decides on the approval of the financial statements and the distribution of dividends, the granting of discharge from liability to the members of the Board of Directors and the CEO, as well as the selection of the Board of Directors and the auditor and the fees paid to them. According to the Articles of Association, the Annual General Meeting shall be held by the end of June.

Nomination Committee

The Nomination Committee appointed by the General Meeting prepares and presents to the Annual General Meeting proposals for the Chairman of the Board, members and deputy members and their remuneration. The Nomination Committee also looks for candidates to succeed board members and deputy members. The Nomination Committee consists of five (5) members. The Chairman of the Board serves as a member of the Nomination Committee. The members of the Nomination Committee are appointed annually.

The Chairman of the Nomination Committee is **Lauri Peltonen** and its other members are **Johan Kronberg**, **Timo Kuusakoski**, **Mariella Kuusakoski-Toivola** and **Tiina Orasaari**.

Board of Directors

According to the Articles of Association, the Board of Directors of Kuusakoski Group Oy shall consist of a minimum of three (3) and a maximum of six (6) members. A maximum of six (6) deputy members may be appointed for the members of the board.

The General Meeting held on 28 April 2022 appointed the following members of the board:



Johan Kronberg, Chairman of the Board (b. 1956)

Independent of the company and significant shareholders

Member of the Board: Since 2018, Chairman of the Board since 2021

Nomination Committee: Member

Education: MSc (Econ)

Key work experience: PricewaterhouseCoopers Oy 1980–2016:

Partner 1988–2016, CEO 2003–2007, Territory Senior Partner 2003–2013, Chairman of the Board 2013–2015

Key elected positions: Auraprint Oy: Member of the Board (2017-), Elomatic Oy: Member of the Board (2017-), Jaakko Taara Oy: Member of the Board (2017-), Nordic Business Group Oy: Member of the Board (2017-), Saariston Kaivonporaus Oy: Chairman of the Board (2014-), Silo Ai Oy: Member of the Board (2017-), Uniogen Oy: Member of the Board (2021-)



Veikko Kuusakoski (b. 1945)

CEO of Kuusakoski Group Oy, Chairman of the Board of Kuusakoski Oy

Member of the Board: Since 1980

Education: MSc (Law)



Mariella Kuusakoski-Toivola (b. 1947)

Shareholder

Member of the Board: Since 1980

Nomination Committee: Member

Education: Commercial College Graduate



Arno Pelkonen (b. 1954)

Independent of the company and significant shareholders

Member of the Board: Since 2020

Education: MSc (Econ)

Key work experience: Uudenkaupungin Rautavalimo Oy: CEO 2012–2015,

Taito Capital Partners Oy: Chairman of the Board 2006–2012,

Stora Enso Oyj/ Enso Oyj: Senior Executive Vice President 2003–2006,

Executive Vice President 1998–2003, Enso Timber Oy: CEO 1994–1998

Key elected positions: Alteams Oy: Chairman of the Board /Member of the Board (2004-), Valucast Oy/Uudenkaupungin Rautavalimo Oy: Member of the Board (2007-), Annalan Kartano Oy: Chairman of the Board (2015-)



Lauri Peltonen (b. 1971)

Shareholder

Member of the Board: Since 2018, Deputy Member 2014–2018

Nomination Committee: Chairman

Education: MD, PhD

Key work experience: Clinical work and research work (1996-),

FVR: Research Doctor 2020–2023, FILHA: Medical Expert 2015–2018,

Leiras-Takeda: Medical Expert 2008–2011

Deputy members:

Tapio Kuusakoski (b. 1983)

Shareholder

Deputy Member of the Board: Since 2018

Education: MSc (Econ)

Tiina Orasaari (b. 1977)

Shareholder

Deputy Member of the Board: Since 2018

Education: BBA

Board diversity

When appointing board members, the aim is to ensure that the Board of Directors as a whole supports the company's business and its development. In terms of the functioning of the Board of Directors, it is important that members have complementary experience and versatile skills.

Independence of board members

Member of the Board **Veikko Kuusakoski** is also CEO of Kuusakoski Group Oy. Deputy Member of the Board **Tapio Kuusakoski** is also a Business Director at Kuusakoski Oy. Deputy Member of the Board **Tiina Orasaari** provides communications and marketing services to Kuusakoski Oy through her own company.



KUUSAKOSKI

CEO of Kuusakoski Group Oy

Veikko Kuusakoski has served as CEO of Kuusakoski Group Oy since 1970.



KUUSAKOSKI RECYCLING

Board of Directors of Kuusakoski Oy

Veikko Kuusakoski, Chairman of the Board

Pekka Erkkilä

Harri Nikunen

Johan Viklund

CEO of Kuusakoski Oy

Mikko Kuusilehto, MSc (Eng)

Management Team of Recycling Operations

Mikko Kuusilehto, CEO

Olov Boman, CEO, Sweden

Tuomas Haikka, Chief Sustainability Officer (CSO)

Teuvo Kuusakoski, Business Director, Non-Ferrous & Stainless Steel

Timo Kuusakoski, Director, Business Development

Tuomas Mantere, Director, Production

Lauri Siukonen, Chief Financial Officer (CFO)



Alteams

Board of Directors of Alteams Oy

Arno Pelkonen, Chairman of the Board

Mika Hassinen

Risto Kuusakoski

Timo Kuusakoski

Petteri Walldén

CEO of Alteams Oy

Asko Nevala, MSc (Eng)

Management Team of Foundry Operations

Asko Nevala, CEO

Daniel Eklund, Executive Vice President, Global Accounts, NET 1 CBU

Anne-Mari Järvinen, Executive Vice President, Group Sourcing and Management Systems

Petteri Kiili, CFO

Alicja Kobiela, Managing Director, Alteams Poland z. o.o

Eero Pellikka, Head of Foundry Operations, Alteams Finland Oy (until 4 November 2022)*

Kimmo Pesonen, Executive Vice President, NET 2 CBU & Group CTU

Timo Puska, Executive Vice President, e-Mobility & Industry CBU

David Twomey, President & CEO, Alteams (Suzhou) Ltd., Co.

*Eero Pellikka passed away suddenly on 4 November 2022.

Auditor

Authorised Public Accountants Ernst & Young Oy was appointed as the company's regular auditor by the Annual General Meeting in 2022.

Authorised Public Accountant **Juha Hilmola** serves as the responsible auditor.

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