Kekkilä BVB

Kekkilä-BVB Sustainability Performance 2023

Growing together for a better future

Sustainability highlights 2023

In Kekkilä-BVB, we established the use of
the Sustainability Compass and LCA tools
for effective customer communication on the sustainability of our products.

Green factory concept
implementation embedded in all factory operations to improve environmental sustainability.

Share of **recycled plastic** in Kekkilä-BVB packaging materials is now
37%
(2022: 31%).

In 2023 we continued
Helping Hands
programme to engage our employees in **volunteering work** on environmental and social topics in local communities and conducted several **employee wellbeing** related activities.

We developed capability to use
reed canary grass
as a circular raw material for growing media

We signed cooperation agreement with UPM to increase availability of
wood fibre
as **circular raw material** for growing media.

We achieved **Great Place to Work** certification in
two
of our countries: Sweden, and Estonia. Our trust index was
61%.

64%
(2022:57%)
of the peat used by Kekkilä-BVB has now **Responsibly Produced Peat** (RPP) certification.

We have reduced our LTA accident frequency with
27%
in Kekkilä-BVB since 2020. In Finland and Estonia we had **0 LTA** accidents for own employees and contractors.

We have increased Supplier Code of Conduct coverage to
86%
(2022: 66%).

Sustainability has been a part of
short term incentive
target of every permanent employee in 2022 and 2023.

We extended
Our ISO system
further by getting **ISO9001**, **ISO14001** and **ISO45001** certifications for all Kekkilä-BVB factories.

Content

This report is an excerpt from Neova Group's sustainability report. The full report can be found here: https://www.neova-group.com/sustainability/sustainability-reports/

Cover image is part of our Sustainability Compass infographic. Since 2022, the Sustainability Compass continues to be an integral part of our product development process for our horticulture portfolio.

Kekkilä BVB

Growing together for a better future

What you see before you is only a concise summary of the daily efforts of our employees to create responsible and high performance growing media solutions. It is truly an honour to be the Director Sustainability of Kekkilä-BVB and I hope that this is reflected in this report.

Our role in the sustainability transition

The world needs access to healthy food, green living areas and flourishing gardens. We offer our customers fit for purpose growing media to fulfil those needs. Our innovation focusses on improving performance at the grower, while optimizing substrate sustainability. Specifically, we aim to double the use of circular raw materials to reduce the environmental impact of our raw materials. We share our sustainability performance openly so we can grow together for a better future.

Our highlights

This year we've made great progress with our Green Growth Raw Materials program to develop new raw materials and new solutions with a higher circular content. Our focus this year was especially on the use of quickly renewable raw materials with promising results from the first grower trials. Also our supplier collaboration has intensified, especially in the coir value chain, resulting in socially certified coir suppliers.

Our challenges

Because of changing business circumstances we've had to restructure our organization in 2023. With restructuring, the process has started to become fit for the future again. The new organizational structure will make us more effective in serving our customers with the high quality products they are used to. I am confident we will succeed, however, also in 2024 this will demand quite some efforts and flexibility from our colleagues.

Future outlook

The coming years there will be more and more pressure on providing responsible and high performance solutions. In our company we have both the tools, skills and the experience to make this happen. It's going to be challenging for the whole sector, but let's keep in mind we are at the base of healthy food and green living; net positivity is in our nature.

Have fun reading our report and don't hesitate to contact me or any of our colleagues in case of questions.

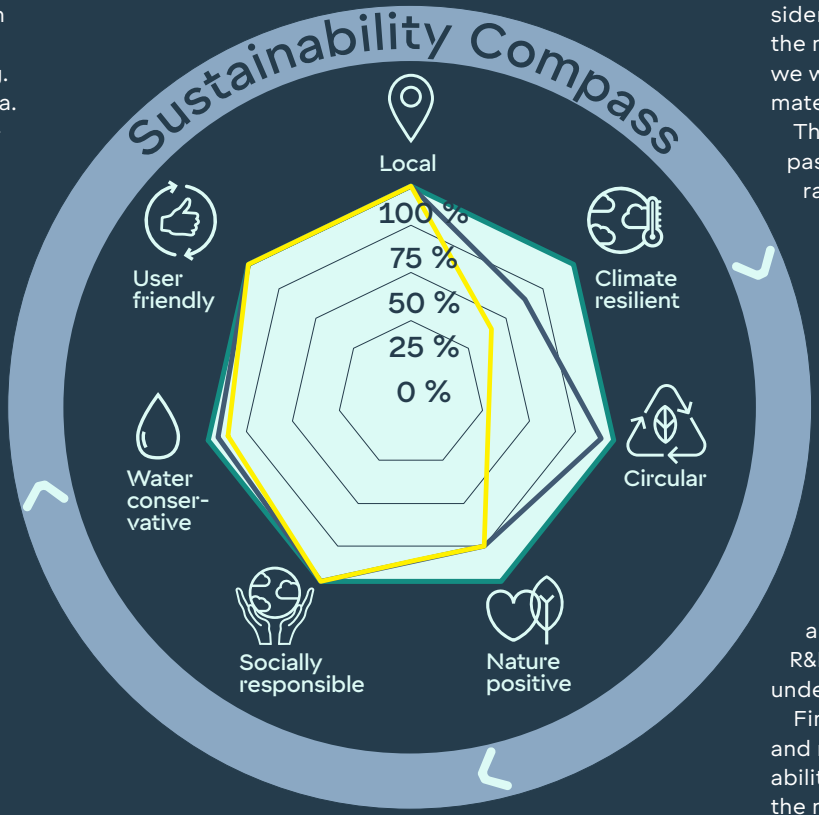
Folkert Moll
Director Sustainability
Kekkilä-BVB

Growing together for a better future with the Sustainability Compass

More and more customers ask us whether or not certain products are sustainable. Most of the time the focus is on certain raw materials (e.g. peat) or certain topics (e.g. carbon footprint) that have gotten attention in the media. To be able to answer those questions in a more consistent way and compare different products and raw materials we have developed the Sustainability Compass. Through an iterative process, involving internal stakeholders and external consultants and stakeholders we have made sure the framework includes a wide range of relevant environmental, social, and business aspects within the value chain.

In the current world, we have to deal with many challenges such as climate destabilization, resource scarcity, urbanization, ecosystem decline, inequality, and a food crisis. The impact of these challenges differs per country and our sector has a key role to play in dealing with them:

- Growing media are needed to safely and efficiently feed the world by increasing the yield per area, reducing water and fertilizer use, enabling production close to urban areas, ensuring food safety and hygiene, and enabling better working conditions.
- Nature-based solutions create healthy, biodiverse and climate-proof urban areas by functioning as water buffers, cooling the city, purifying the air, facilitating social cohesion, and allowing local flora and fauna to thrive.
- Gardening reduces stress and increases well-being by inviting mindful activities with healthy and beautiful flowers, shrubs, and trees.



Unsurprisingly, global demand for growing media is multiplying and the overall sustainability of materials needs to be understood. Each material has its own pros and cons and understanding them as well as the sustainability considerations linked to each material is necessary to select the most suitable and most sustainable raw materials. If we want to be fit for the future, we need to know what materials to focus on and the type of products to develop.

Therefore, we have developed the Sustainability Compass, a framework to assess the sustainability of our raw materials and products. Starting from being fit for purpose we need to consider many different aspects on whether or not a (new) raw material or product is sustainable. In an ideal case, the final solution is a local, climate resilient, circular, nature positive and water conservative substrate that adds to the health and wellbeing of a fair society.

The Sustainability Compass can play a significant role in decision making for multiple departments. For our procurement department the Sustainability Compass shows the risks and opportunities of each raw material that Kekkilä-BVB procures. When we are developing new products, the framework can be used to find optimal performance (fit for purpose) of our substrates with the best possible sustainability score. The framework can also be used by the R&D department to quickly assess new raw materials to understand to what extend they are future fit.

Finally the framework provides all the relevant product and raw material information needed to engage in sustainability discussions. There are already many questions in the market about the sustainability of growing media in general and regarding specific raw materials. The Sustainability Compass and the related documentation can show for each product and each raw material what the sustainability pains and gains are and how we can grow together for a better future.

Kekkilä-BVB – Growing together for a better future

Creating innovative solutions for growing food, gardening and greener cities through collaboration and education.

Like all other businesses, we are affected by global developments that influence market demands, government regulations, and stakeholder actions. For us, the key developments are urbanisation, climate destabilisation, ecosystem decline, food crisis, inequality, and resource scarcity. These developments create challenges and opportunities for our company. On our webpage, we explain further how these developments influence our business.

Aligned with the Neova Group Sustainability strategy, we have divided our sustainability roadmap into three focus areas, taking the environmental, social, and business aspects of sustainability into account. The roadmap shows our ambitions and targets in each of these focus areas. Kekkilä-BVB's sustainability work is led by a lean governance structure with joint roles and responsibilities with the Neova Group sustainability team.

Our Kekkilä-BVB Leadership Team handles the successful execution of Kekkilä-BVB's sustainability roadmap. This ensures that sustainability is an integrated part of our business and that all the different departments and functions in the organisation carry our ambitions forward.

Through the involvement of all colleagues, whether in procurement, logistics, operations, HR, sales, marketing or any other department, we make it happen. Kekkilä-BVB's Director of Sustainability ensures that the sustainability ambitions fit with market needs and developments, and manages progress on our targets.

We make the world greener and healthier through our products and services

Our products and services always start from the same principle: fit for purpose. It is very important that the chosen recipe for growing media materials fits the purpose of the user, otherwise, all the resources, energy, and manpower to create the substrate are wasted. At the same time, we aim to be as sustainable as possible throughout the value chain, through collaboration and innovation. Our roadmap guides us in being a net positive company, a company that contributes more to the world than it takes from it.

The best way for us to do so is by supplying safe, socially responsible, environmentally friendly, and effective growing solutions. In 2023 we have accelerated our efforts in growing renewable raw materials for substrates. The case study about quickly renewable raw materials on page 13 is a great example of this.

Growing together for a better future

We do this by

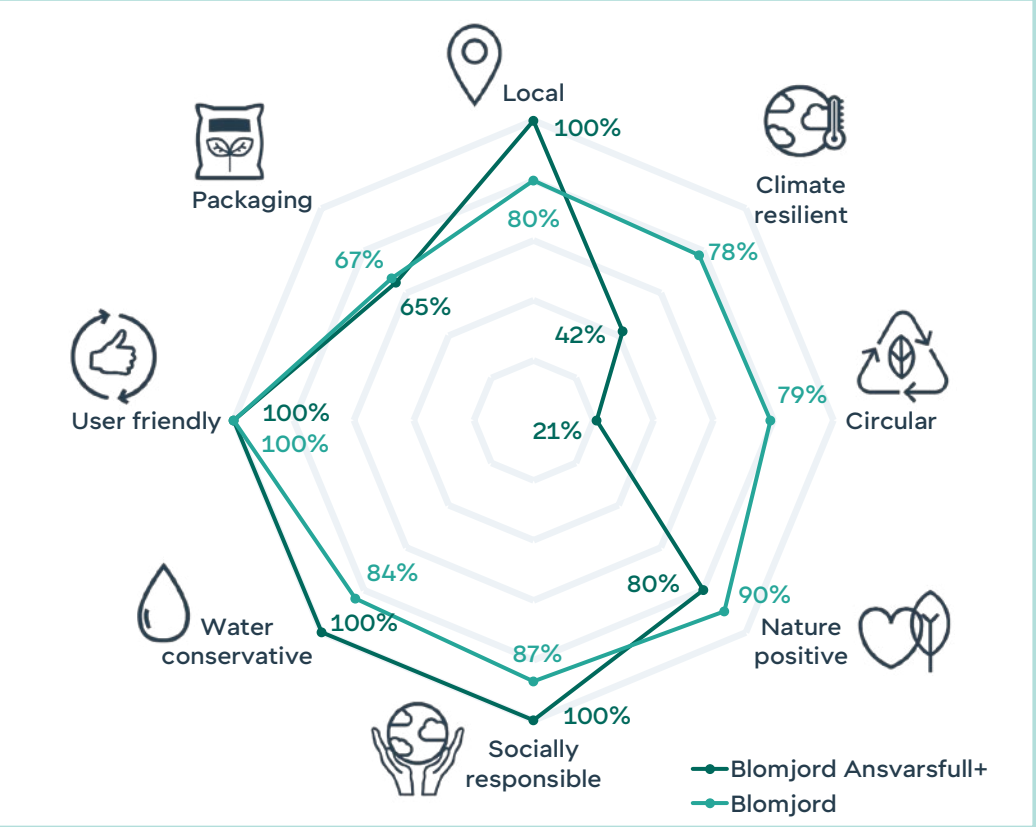
Creating innovative solutions for growing food, gardening and greener cities through collaboration and education.

Sustainability Compass evaluation

Through our Sustainability Compass, our products are analysed and rated based on several sustainability aspects. The higher the rating a product receives, the more sustainable it is. In the example below, we compare two of our products: Standard potting soil and Sustainable+ potting soil.

If we had only focused on one sustainability aspect, e.g. "Local", the sustainability result would have been higher for standard potting soil ("Blomjord"). On the other hand, when we look at all aspects of the Sustainability Compass, we get an average score that better reflects the sustainability of the products. According to this, Sustainable+ potting soil ("Blomjord Anvarsfull+") is rated as more sustainable.

This framework allows us to look at sustainability in a broader perspective to ensure that we look at the big picture when it comes to sustainability instead of just one aspect of it.



Blomjord Sustainability Compass evaluation.

Professional Growing

For professional growers, we offer continuous quality monitoring of our substrates as well as onsite support. We have tooling in place to optimise both the effectiveness as well as the sustainability of our substrate recipes. After the first use of our substrate materials, we offer circular solutions to optimise the after-use. We research and improve these solutions together with our customers, knowledge institutes, and other sector organisations.

This year we have worked on dozens of trials with our professional customers, of which many are still ongoing. Most of the trials focus on increasing the use of circular raw materials in the recipes or finding new ways to give a second life to spent substrates. This refers for instance to our efforts to reuse spent strawberry substrate for other high quality horticulture purposes, to find on-site treatment options to reuse vegetable substrates for the same purpose and to evaluate circular raw materials for mushroom casing soil.

Retail

For retail, we offer solutions, products and customised mixtures based on responsibly sourced raw materials and evaluated through our standardized quality management process. We supply our products in packaging that both contains recycled content and is recyclable as well. Besides that, we help consumers to optimally use our products and create healthy and green communities.

This year a lot of effort has been put in rolling out the Sustainable+ Concept for gardeners in the Nordics. The Sustainable+ retail product series are developed for gardeners who want to make sustainability part of their everyday life. These products are made from sustainable raw materials, combined with

the aim of good plant growth. Read more about the sustainability of this concept in the case study on page 7.

Landscaping

Our expertise in landscaping leads to green roofs, facades and outside areas. Using the local situation as starting point we try to reuse as much of the existing landscape elements and materials as possible. Together with our customers we will find climate-smart solutions, that help neighbourhoods become more biodiverse, healthier and more attractive to live in.

This year we deepened the Green City Concept which aims to offer solutions for building more healthy and green urban areas, contribute to a biodiverse environment under and on ground and holistic well-being for people, plants and animals. Solutions and products are local and based on needs of specific market areas. In 2023 fourteen projects were selected as Green City projects based on their innovative value, community impact and scalability. Examples are research into water purifying substrates in the Netherlands, carbon storage in biochar for landscaping substrates in Sweden and developing green roofs in Helsinki and Pasila in Finland. A special highlight for this year was our contribution to the Chelse Garden Show in London, of which you can read more in the case study on page 9.

We support the growth of our people and partners

At Kekkilä-BVB we work together with our colleagues and with our suppliers throughout the value chain to ensure good working conditions, safe working environments, and engaged employees that are happy to work for and with us. In the sections below specific Kekkilä-BVB performance is shown.

Landscaping nutrition soil, reuses 70% of local soil

In the interest of sustainability, in many cases it is desirable to upgrade local soil for landscaping projects. For example because the pH is not optimal, insufficient useful soil biology is present or the physical structure is not optimal for healthy growth. When it comes to soil improvement, local upgrading is often a realistic option. It is cost efficient because it reduces the need for new soil (on average 70% less) and lowers the associated transport movements.

This in turn reduces the environmental impact of the landscaping project and makes it a sustainable solution. To ensure that the correct nutritional mix is applied, both the initial situation and the desired end situation are first mapped out. Kekkilä-BVB Research then analyses the local soil to define the specifications of the tailor-made nutrition soil. Our landscaping teams work mostly at a local level, but this solution can be applied at any location in the world to green (urban) areas.

The use of soil improvers is cost-effective because it reduces the need for new soil (on average 70% less) and the associated transport needs.

Chelsea Flower Show

In May this year, the internationally acclaimed horticultural event, the Chelsea Flower Show, was held. The event is clearly considered one of the highlights of the year among landscape designers and green industry professionals. Finnish landscape designer Taina Suonio, winner of Chelsea Flower Show 2019, participated in the spring event, this time together with British landscape designer Anne Hamilton. Taina and Anne's garden concept focused on raising awareness of the disease cavernous angioma. The garden contained plants, shrubs and trees specially selected to fit the concept. We at Kekkilä-BVB supplied the garden with soil improvement material, green compost and substrate for stormwater management.

During the creation of the garden there was a desire to utilize the existing soil to save on environmental and transport costs. We supplied raw materials for soil improvement to improve the existing quality and compact soil on site, making it more suitable for plants and trees. In addition to improving the existing soil, the garden aimed to incorporate recycled materials. Therefore, we provided green compost to increase the nutrients in the soil. Among other things, green compost improves soil structure, provides valuable nutrients to plants and trees and improves water-holding capacity in the soil. The garden was also provided with macadam which is used in storm water management substrate. Stormwater management is one of the most important aspects of landscape design in urban areas.

Safety first!

At our production facilities, safety is a top priority for our employees and visitors. Our operations start their meetings with a safety update to remind them of the importance of safe working. They are also asked to keep an eye out for risky or unsafe situations and register these in our online safety register. In 2023 a total of 1,451 safety, environmental and quality observations were made. That's 14% lower compared to previous year (2022: 1,693). These observations lead to documented actions to mitigate safety risks. The lower number of safety observations is in line with the target set for this year. As we create more and more awareness about safety, the quality of the observations gets higher, while the quantity decreases.

To improve and harmonise our safety culture, we continued to focus on safety training and risk assessments in 2023. Every employee had to (re)do the Safety First e-learning and for new employees a classroom training was organised. Risk assessments were performed for loading and unloading as well as fire safety. And in each country accident and emergency practicing plans were developed and practice events organised. Thanks to our safety efforts we were awarded the ISO45001 certification for our production sites.

Overall, our efforts resulted in fewer accidents. The accident frequency (resulting in time away from work) for Kekkilä-BVB in 2023 was 5.6 (2022: 7.1) and decreased especially in the Netherlands, as well as Sweden. Especially encouraging was that both Finland and Estonia reached our zero accidents goal (without absence), already starting in 2019. Most of our accidents occur in production operations. All accidents were minor, and no serious accidents occurred. When we evaluated the incidents of 2023, we found that they were mainly caused by wanting to do something quickly or not performing a last-minute risk assessment.

Great workplace

We have the ambition to be amongst the best employers in Europe. This year we did not succeed in improving our Great Place to Work (GPTW) score. It was lowered from 69% in 2022 to 61% in 2023, mainly caused by the ongoing reorganization and closing of two factories that affected our colleagues in Finland, the Netherlands, Sweden, Estonia, Germany, Italy, France and Spain. The reason for the change negotiations is the weakened competitiveness of Kekkilä-BVB. The weakened competitiveness has mainly been caused by a drop in demand in the international growing media market. The decline in demand is mainly due to factors that have reduced customers' ability to pay, i.e. higher interest rates, inflation and increased logistics costs.

The change negotiations and respective consultation processes concerned a total of approximately 720 of Neova's approximately 1,000 employees. It was preliminarily estimated that the measures planned to improve profitability could lead to a reduction of approximately one hundred positions in different countries. The final number of reduced positions is 85, of which 46 are permanent positions, and 39 positions are due to voluntary resignations and the termination of fixed-term employment contracts and similar measures. In addition, there will be significant changes to the duties of approximately 70 people. These changes mainly involve Kekkilä-BVB employees.

On a positive note, annual initiatives like 'Helping Hands', 'the Nature challenge' and 'Let's start moving challenge' continued from last year and provided much needed distraction from the turmoil caused

by the reorganisation. For Sweden and Estonia we were even still able to obtain the GPTW certifications. However, being among the best European workplaces in all countries will require an organisation wide effort, supported by both Kekkilä-BVB and Neova Group management.

Responsible partners

Together with our partners we work in collaboration to improve sustainability in our supply chain. Four years ago, we started discussing and implementing our Supplier Code of Conduct and related sustainability values we expect our suppliers to put in practice. In 2020 81% of our largest suppliers (annual spend > EUR 300,000) had signed the Code of Conduct.

In 2022 we extended the scope further to suppliers with annual spend > EUR 100,000. At the end of 2022, 59% of those suppliers had signed the Supplier CoC. In 2023 we increased this share to 86% for Kekkilä-BVB suppliers, above our target for this year. During 2023 we conducted 9 (2022: 10) audits for strategic suppliers and 11 supplier audits in total in Kekkilä-BVB. We agreed joint sustainability improvement actions and targets with several strategic suppliers, especially covering key raw material and packaging material supply, and we will be systematically working in collaboration with these suppliers during 2024 towards our common sustainability targets.

Recently we have joined the sector initiative led by RHP related to responsibly produced coir (RPC). After peat coir is the second most used raw material for growing media. Coir is obtained by processing of the husk of coconuts. Those husks are an industrial side stream of coconut processing for food. It is a renewable raw material, with good physical properties for growing. Because coconut husks contain a

Responsibly produced coir: a key material for growing media

In our search for renewable raw materials in growing media, we often encounter the suggestion to simply switch to coir (also known as coco). While this seems straightforward, our exploration using the Sustainability Compass reveals that coir, as a material, next to being a renewable and good alternative, it also presents its own set of challenges. The social responsibility of the harvest and the processing of coir requires attention, as well as the water conservation and transportation aspects.

Social responsibility

We've partnered with a select group of coir companies that share our commitment to sustainability. To us, sustainable business means fair treatment of workers, along with their health and safety. Our coir suppliers are required to adhere to our Code of Conduct and obtain SEDEX or SA8000 certification. We also make site visits to verify that our high standards are being met in practice.

Water conservation

Coir is known for its excellent structure, stability, and re-wetting capacity, contributing positively to a good air/water ratio in growing processes. However, post-harvest, significant water is needed for cleaning and buffering coconut fibres to make it suitable as a growing medium. This is a critical step to remove contaminants and reduce salt levels. The water-intensive nature of this process is a concern, especially in regions where clean freshwater is scarce. We work with our suppliers on effluent water treatment plants to increase the availability of freshwater.

Responsibly produced coir (RPC)

Similar to the RPP certificate for Responsibly Produced Peat, we're collaborating with the same foundation and other companies to establish a standard for Responsibly Produced Coir. This initiative underscores our dedication to environmentally conscious practices that balance substrate quality with planetary well-being.

We make site visits to verify that our high standards are being met in practice. In autumn 2023, we visited the sites of our Indian partners.

lot of salts, washing is needed to prevent release of phytotoxic levels of salts. This is a water and chemical intensive process and needs to be managed well from an environment and community perspective. It is also important to ensure good working conditions during husk and coir processing. Since (part of) these activities take place in countries with higher social risks.

The RPC initiative aims to develop a worldwide standard for the responsible production of coir, also highlighted in the case study on page 10. At the same time we are already collaborating with our main suppliers to ensure proper social certification like SA8000 and installation of effluent water treatment plants.

Being part of Growing Media Europe helps us in managing the different European regulations and initiatives relevant for our sector. For instance, the Nature Restoration Law is relevant for the size of opportunities to grow our own low carbon biomass, while the EU taxonomy will influence the accessibility of finance for our operations. Moreover, the Green Claims Directives supports our ambitions to be transparent about sustainability and the Corporate Sustainability Reporting Directive ensures sustainability becomes fully embedded in the execution of our business. We are in a privileged position as a sector, since we are already contributing to healthy food, green living and flourishing gardens through our products and services. With the help of local and circular raw materials we will also be able to do this in a climate resilient manner.

We do our business in balance with nature

At Kekkilä-BVB we do our business in balance with nature. A sophisticated balance in which we use a mix of soils, energy, nutrients and water to create the best substrate for healthy plant growth. Every year we get a step closer to reduce our greenhouse gas emissions, increase circularity and enhance biodiversity. Within our own operations these focus areas are addressed through the implementation of our Green Factory concept. Overall, the ISO 9001 and ISO 14001 certifications are the basis on which we continue to improve the quality and environmental performance of our operations. During 2023 we extended the ISO 14001 certification to cover all Kekkilä-BVB sites. In the sections below more is explained about Kekkilä-BVB specific ambitions, challenges and achievements related to our focus areas.

Greenhouse gas emissions

When we talk about our carbon footprint, we must take the whole value chain into account. That's why we assess our carbon footprint of the whole supply chain (scope 1+2 validated by external party and scope 3) according to GHG Protocol. In 2023 the emissions for Kekkilä-BVB own operations were 9.8 kilo tonnes CO_2-eq (2022: 8.5 kilo tonnes CO_2-eq). The largest share of these emissions (51% of the total footprint) is caused using electricity. Of our scope 3 emissions, the use and end-of life for our own products accounts for 498 kilo tonnes CO_2-eq, driven by the emissions from horticulture peat (2022: 540 kilo tonnes CO_2-eq).

Kekkilä-BVB's ambition is to move towards renewable electricity totally by 2025, which will reduce our own footprint significantly. Our focus will be producing renewable electricity ourselves, rather than buying offsets, because we think this has a more positive impact overall. At the same time the focus of our Green Factory program this year was the efficiency improvement plan, tailored for our operational staff and site managers.

The next generation casing soil

With growing interest in the market, we've explored various options to create casing soil out of alternative raw materials with a relatively small footprint. Just like for all our other casing soils product safety and quality come first. We've subjected this new, unique casing soil containing 30% of a special type of green compost to extensive tests in our specialised laboratories. In addition, we've collaborated with a number of high-tech mushroom growers in the Netherlands, to test the performance of this casing soil at a larger scale at their production sites. The final product, BVB Green Plus, consists of high quality peat products and green compost following a unique production process. It is an innovative type of casing soil taking both crop performance and sustainability into account.

Chestnut mushrooms growing in casing soil.

By monthly monitoring of electricity and fuel consumption, we now can have a digital representation of consumption patterns, a base from which we can start learning and measuring impact of further improvements. To reduce product movements, and increase efficiency, logistics has implemented a first set of optimizations. Fuel consumption also decreased due to additional training of our loader and forklift drivers. Furthermore the team discussed opportunities to reduce distances between stock piles of raw materials in the existing site layout, but also possible adjustment to optimize even further.

In several buildings we are now running on electric heating or integrated ground heating. To save costs we have also started with changes in behaviour, like adjusting the air conditioning and factory temperature. To support the effect of these changes, we have added PVC strip curtains in open doorways and mixed room air distribution units to enable a better temperature control.

As mentioned above the carbon emissions related to peat use are much talked about in our sector. Because peat is such an excellent and widely available material it is very difficult to replace it. Especially because, besides the carbon footprint, the value chain is one of the most environmentally and socially responsible. However, we do see that we should use the vital raw material as effectively as possible and that's why we've joined the European discussions on increasing the share of local and circular raw materials in growing media.

Circularity

Raw materials

Strategically our most important circularity activity is to increase the volume of circular raw materials in Kekkilä-BVB business. To accelerate

Circularity and high performance go hand in hand in our new retail potting soils

Kekkilä-BVB introduced Circulera, a unique, new circular material to be used as a component for potting soil. With Circulera, used strawberry substrate from professional growers is taken back to Kekkilä-BVB's production facilities. The used substrate will be lightly composted to create high quality compost, while minimizing the phytosanitary risks.

In 2023 we did a lot of tests with this new raw material and we found that it's quality fits with the requirements of retail potting soils as well as tree nurseries. In a first estimate, it seems best that strawberry growers are in the vicinity of our production locations within a radius of 150 to 200 kilometres. In 2024 we will continue our research and hopefully develop more products with this or other '2nd life' raw materials as an ingredient. Our customers and local composters have already shown their interest.

From strawberry substrate to premium compost.

Testing quickly renewable raw materials

In recent years a lot of research has been performed on growing biomass on rewetted peatlands. When peatlands are prepared for agriculture, forestry or harvesting ditches are dug to lower the water level. While this improves accessibility and crop production (many conventional crops don't like wet feet) it has a negative effect on the peat layer. When peat is in contact with air it starts to slowly degrade and emit CO_2. Growing biomass on wet peatlands, so called paludiculture, could prevent this degradation while still being productive.

Whilst research is done on numerous types of plants, our focus is on miscanthus, reed canary grass and sphagnum moss. The latter already is a successful component of our substrate mixtures, being a renewable raw material with similar buffer properties as peat. In Haukineva we currently have 9 hectares of rewetted peatland that is used for sphagnum farming. Although it's challenging to grow, we will double the field year 2024 to prepare for large scale farming.

Miscanthus and reed canary grass are also plants that can thrive on wetter soils. The grasses we use are currently not from rewetted peatlands, but research has shown this is a possibility for the future. In the Netherlands we are working together with Compas Agro to develop a business case for the use of Miscanthus in substrates. Different tests showed promising results for use in strawberry, lavender, hydrangea, and conifer substrates. For reed canary grass good results were achieved as well for use in substrates. The renewable and clean raw material has good drainage properties and improves air content in substrate mixtures.

In the coming years we will continue our research into (the farming of) these renewable raw materials and continue developing fit for purpose substrates together with our customers.

In Haukineva nine hectares of rewetted peatland is used for sphagnum farming.

this, we launched a major Green Growth Raw Materials program last year and set an ambitious target to double the usage of circular raw materials by year 2027 in Kekkilä-BVB business. During 2023 the share of circular raw materials increased slightly in our growing media despite to several challenges such as overall decline of our raw material volume, as well as raw material price and logistics cost increases and competition from the energy market on renewable materials (e.g. wood fibre and bark). Due to the raw material price increases customers asked us to find a cheaper alternative, which in many cases was the versatile, yet non-circular peat. Going forward, we are committed and are already working with several concrete activities to increase the use of circular raw materials. The speed will depend on the availability, performance and quality of these materials.

The focus of our Green Growth Raw Materials program is on raw materials that are from a quickly renewable source like grasses or are given a second life after their first use, like reuse of spent strawberry substrate. Most of the work we do is in collaboration with our customers, because new raw materials need to be tested in practice to determine whether they are fit for purpose. Examples of our research into quickly renewable resources can be found in the case study on this page.

This year our Landscaping teams had different results in improving the circularity of raw materials. The share of circular raw materials decreased from 47% to 37% in Finland, due to less availability of recycled minerals. For Sweden the share of circular raw materials increased from 44% to 48% and in the Netherlands the share of circular raw materials increased from 42% to 58%, mainly due to reuse of local soils.

One of the most important ways to reuse soil is by adding our customized nutrition mix to local soils,

which in some cases means 70% of the local soil can be reused. But also using new waste streams from other industries, like e-bottom ash, are solutions that our landscaping teams are scouting for continuously. For our landscaping projects we usually need large volumes of materials, so whenever there's a good quality local material available that will be beneficial for both us and the customer.

Waste reduction and recycled packaging

In our own operations we are aiming for zero waste by 2030. Our raw material waste is already below 1% and close to non-existent at many sites. That's why we are looking into other waste streams, like packaging and mixed waste, to find out how we can further reduce them together with our suppliers and waste processors. It turned out that this is quite hard to improve at our sites. Our two biggest streams of waste are pallets and used plastic packaging.

The pallets we already reuse and repair as much as possible, either ourselves or through our suppliers. What cannot be repaired is usually recycled and becomes chipboard or something similar. Pallets of insufficient quality are used as fuel in biomass installations, and this is hard to prevent. For our used plastic packaging waste, we can only have clean packaging recycled, but this is impossible without washing the plastic and for this we have no room at our facilities. So, it's challenging to improve.

For our packaging we have been increasing our recycled plastic content for both professional and retail products. We've managed to increase the overall share of recycled packaging to 37% (2022: 31%). A great achievement in a year where it was sometimes hard to source plastic materials at all. Our suppliers did warn us for the coming year. Because of high demand the quality of recycled plastics is going down and they advise us to therefore use plastic with lower

UPM woodfibre

Kekkilä-BVB and UPM have signed a letter of intent on the basis of which UPM would deliver wood fibre to Kekkilä-BVB. Wood fibre can be used in growing media suitable for professional growing and home gardening. The co-operation is an important step towards increasing the proportion of renewable raw materials in our growing media products.

Kekkilä-BVB consumes approx. 6 million cubic metres of various materials for growing media annually. In 2022, the proportion of circular and renewable raw materials was approx. 1 million cubic metres. Kekkilä-BVB aims to double the volume of circular and renewable raw materials by 2027.

"The wood fibre procured from UPM will be used as a raw material for the growing media suitable for mainly professional growing manufactured in Kekkilä-BVB's factories in Finland, Estonia and Sweden. The products are mainly exported to different parts of the world. The goal is to expand the use of Finnish clean wood fibre also to Kekkilä-BVB's factories in Central Europe and to the export markets of these factories", says Päivi Martikainen, Chief Innovation Officer at Kekkilä-BVB.

UPM's and Kekkilä-BVB's letter of intent encompasses approx. 50,000 cubic metres of wood fibre annually. Globally, the volume of wood fibre as a growing medium is expected to increase from the current volume of three million cubic metres to 30 million cubic metres.

"Wood is a versatile and renewable material for which we envisage an almost unlimited number of end uses that are compatible with sustainable development", says Mikko Lassila, Business Development Director at UPM Technology.

"The cooperation now launched is of a small-scale but is important, because it bears witness to yet another successful innovation and cooperation. We regard it as especially important that we can offer a safe raw material as a growing medium for food production", says Lassila.

"Both for us and for UPM, responsibility is at the core of our strategy. Thus, we are very pleased to have found a local partner, who aims to utilise wood fibre as sustainably as possible, and thereby to respond to the expectations of consumers but also those of the legislation," says Martikainen.

Wood fibre can improve the performance of substrates, for example, in blueberry cultivation.

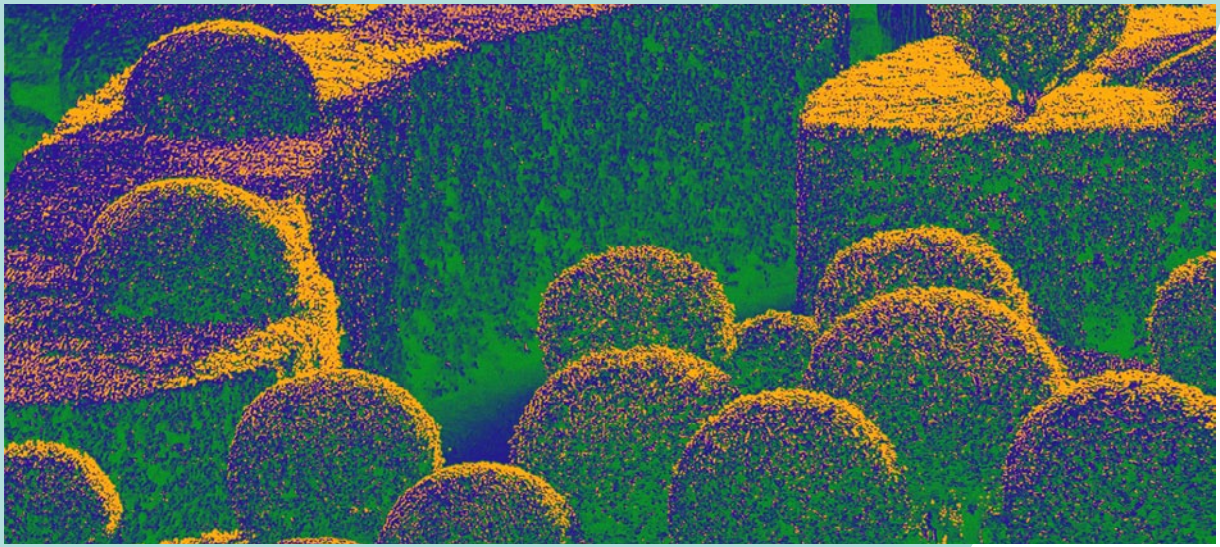
Garden Futures exhibition

Kekkilä is involved in supporting the Garden Futures – Design with Nature exhibition organised by the Museum of Finnish Architecture and Design Museum, which opened November 10, 2023 in Helsinki. The exhibition features garden related design and landscape architecture, as well as works of art about the garden. The collaboration in the exhibition is part of Kekkilä's upcoming 100th anniversary and it will be open until the end of March 2024. Design with Nature is a travelling exhibition of the Vitra Design Museum, the Wüstenrot Foundation and the Nieuwe Instituut, and Helsinki is its first touring destination.

The Garden Futures exhibition shows that even a private garden is connected to the surrounding society in many ways. The ongoing transition makes us look at the garden from a different perspective: instead of a romantic escape, gardens are now viewed through, for example, activism, social justice and biodiversity. For example, what comes to the fore is how many of the basic plants in Western gardens we know have deep roots in colonialism.

The exhibition shows not only garden related design and landscape architecture, but also works of art dealing with the garden. The international perspective of the touring exhibition is supported by local examples and projects.

https://www.mfa.fi/en/exhibitions/garden-futures/



The Garden Futures exhibition shows that even a private garden is connected to the surrounding society in many ways. The collaboration in the exhibition is part of Kekkilä's 100th anniversary. (Picture: ©Vitra Design Museum. Illustration Lorenz Klingebiel and Dominik Krauss. The photo used as the basis of the illustration: Les Jardins de Marqueyssac, Dordogne, France, © Laugery.)

recycled content. If chemical recycling is not widely available, this quality versus quantity will remain a challenge.

Besides that, we are also looking at other ways to optimise our packaging. We offer for instance smaller sized potting soil and mulches that better fit with smaller household needs. We have also introduced a pump bottle for liquid fertilisers that makes dosing much easier and keeps plants in good shape. We also sell composters made of 100% recycled plastic and we can offer our products in bulk for Professional and Landscaping customers, so we don't need any packaging.

Biodiversity

Biodiversity plays an important role in our business, from micro- to macro level. At the smallest level we talk about the importance of micro life in our growing media which can be bacteria, fungi or protozoa. Through strict quality control of the whole supply chain, we try to keep the negative species out and keep the positive species in our growing media. Within our Innovation function we are looking at new bio stimulants (of which mycorrhizae are one of the best known) that can contribute to increasing plant resilience.

At a larger level we have an important role to play to ensure our growing media can support native flora. Landscaping projects focussing on green roofs, permaculture, climate adaptation and parks filled with local flora contributed to biodiversity this year too. And whether it's supporting consumers with soils for their gardens or providing tree nurseries with professional substrates, all these activities contribute to a greener and more biodiverse world. We've also seen during the Helping Hands activities how much joy this can give to our colleagues and the communities

that we helped. Additionally, all factory employees got offered complimentary soil bags to enhance their home gardens' biodiversity.

Taking care of nature is also an important parameter in selecting suppliers. Here we've prioritised the sourcing of peat, since this is the most important material for growing media in terms of properties and volume. We only source from suppliers that harvest peat from already developed peatlands, follow the strictest regulations and restore the peatlands after use. This way we know that biodiversity is higher when our suppliers leave than before they came. Therefore, in Kekkilä-BVB business, we are committed to improving biodiversity and use the Responsibly Produced Peat (RPP) certification scheme as one of the tools to demonstrate our commitment.

Jubileumsparken, a park with a strong focus on biodiversity.

In Jubileumsparken, Gothenburg, Sweden, biodiversity is being promoted through a blend of natural and classic park elements. Various meadows, including salt-tolerant and dry types, are being tested with diverse vegetation to support biodiversity. Nutrient-poor meadow soils foster meadow flowers while biochar aids plant growth.

The park boasts 31 large trees, including oak and sequoia, relocated with care for optimal establishment using biochar-mixed beds. Biochar is also enhancing tree plantations and playground lawns, balancing moisture and oxygen for resilience. This blend of nature and innovation creates a vibrant, sustainable urban oasis.

Jubileumsparken in Frihamnen is the result of the Gothenburg citizens' wishes for green areas and getting closer to the river.

Kekkilä-BVB sustainability KPIs and targets

Focus area	Key indicator		2023 (2022)	Target 2025
We make the world greener and healthier through our products and services	# green city projects (ongoing)		14 (8)	4
	# collaboration projects with growers for more sustainable growing practices (ongoing)		>25 (>25)	20
	# new sustainable consumer product and service concepts (cumulative)		2 (1)	3
	# community projects (ongoing)		2 (24)	30
We support the growth of our people and partners	Safety first!	Accident frequency: LTA1 (resulting in absence)	5.7 (7.1)	0
	Great workplace	Great Place to Work Trust Index	61% (69%)	78%
	Responsible partners	% of contract suppliers signed Supplier Code of Conducts	86% (59%)	100%
		Number of audited strategic suppliers	9 (10)	8
		Number of prioritised suppliers with joint sustainability action plan and targets	12 (14)	4
We do our business in balance with nature	Greenhouse gas emissions	Reduction of CO_2 footprint of operations (scope 1+2) ($ktCO_2$-eqv.) baseline 10.3 in 2020	-4% (-17%)**	-50%
		Reduction of carbon intensity (scope 1+2+3) ($ktCO_2$ / M€) baseline 3.0 in 2020	-31% (-25%)**	-50%
	Circularity	Volume of circular raw materials (Mm^3)*	1.4 (1.4)**	1.7
		Use of recycled materials in packaging	37% (31%)	50%
		Recycling rate of waste in own operations	64% (85%)	90%
	Biodiversity	% of certified responsibly produced peat in own products	64% (57%)	80%

* Circular raw materials definition: Raw materials that are from a renewable source or are given a second life after their first use, like compost from garden waste.
** This year we have started to include our activities in Germany in our sustainability performance. Historical performance and the base year performance have also been corrected.

Care for life.

Kekkilä BVB

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