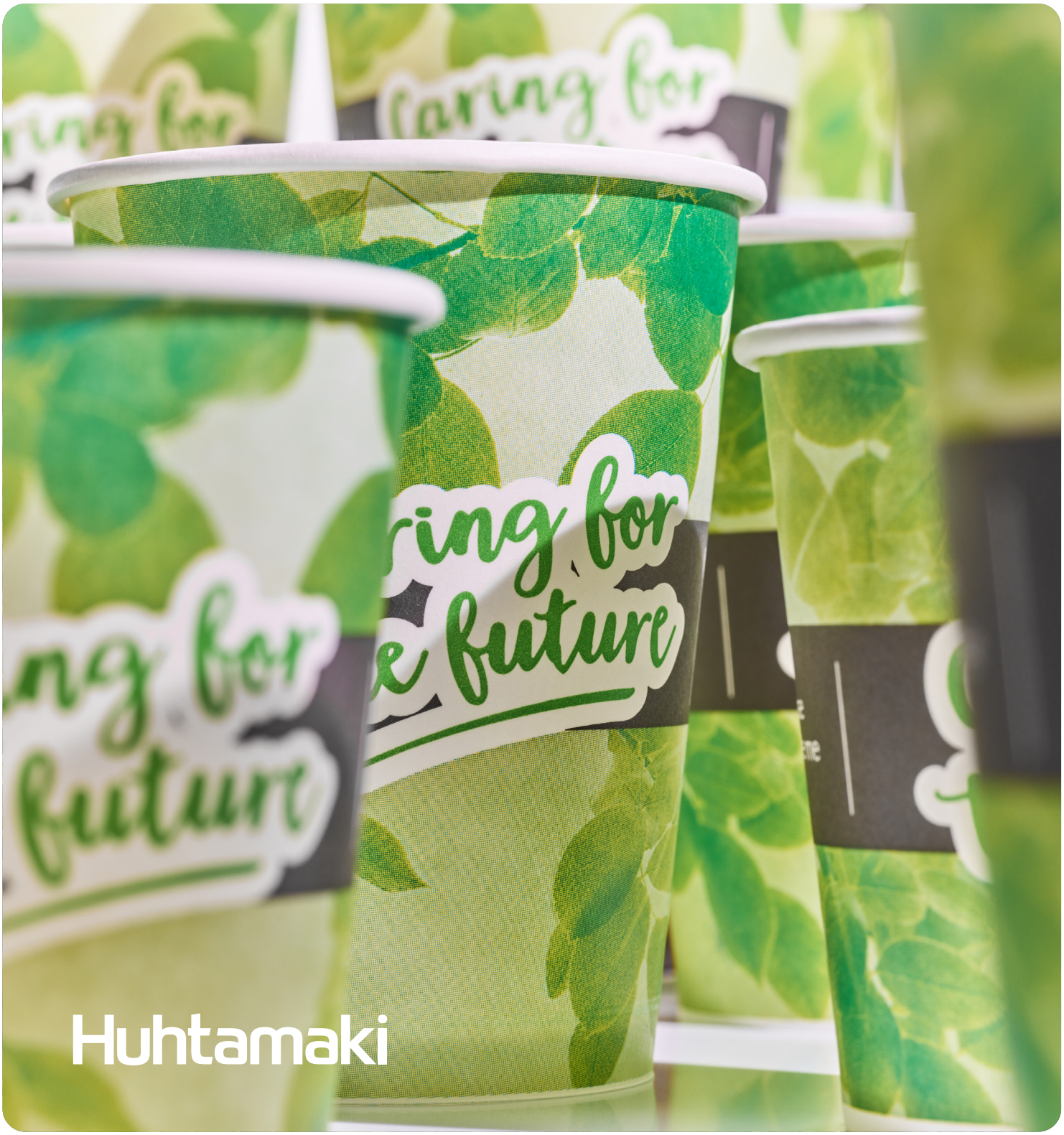
Sustainable forests

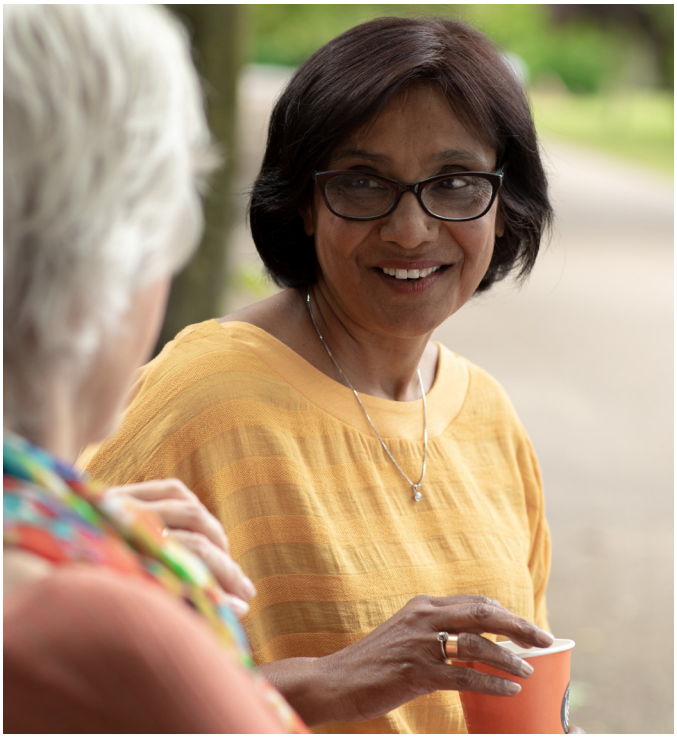
– Source for our renewable and recyclable products



Why is sustainable forestry so important to Huhtamaki

We use paper and cardboard products every day - when we have a take-away coffee on the way to work, read a book or a newspaper on commute or receive a box with goods that we purchased online.

Paper and cardboard are wood-based products, which means that their raw material comes from forests. Traditionally, people view forests differently around the globe. For some, forests mean an opportunity to go for a hike and relax after a busy week - for some, they provide food or livelihood. Some believe that forests are felled unnecessarily, and they should just be left as they are. What should we know about forests – and most importantly, why do we care so greatly about them at Huhtamaki?



Forests are the heart of our globe

Forests are an important natural resource. Around 30% of world's land surface is covered with forests. When forests and trees are well managed, they provide livelihoods, clean air and water, maintain biodiversity and mitigate climate change. Forests bind carbon and are considered as carbon sinks throughout their growth.

To ensure that forests renew and grow, it is important that they are sustainably maintained. Sustainable forest management means that forests are not used excessively, new trees are planted to replace harvested timber, and the forests are ecologically maintained and managed for their long-term health. Today, the general rule is that, in sustainably managed forests, for each felled tree, three new trees are planted.

Efficient use of material

One focus area in sustainable forest management is increasing or maintaining the biodiversity of forests. The structure and age are key factors influencing the biodiversity of the forest - species richness and species composition. We can actively promote biodiversity with methods like retaining dead and decaying trees during felling, increasing green-tree retention, or controlled burning to improve the balance of nutrients, reduce pests and grasses, which could choke the new seedlings' growth.

One key target in sustainable forestry is to use wood in a resource-efficient way, reducing the need for fossil-based raw materials.

Wood fiber originates from full-grown trees as well as from young trees thinned out to allow the forests to grow. In sustainable forestry, all material is used for the best-fit purposes[1]:

- 60% of the tree is trunk. It is the hardest and best quality wood that is used, for example, in construction and in manufacturing furniture.
- 25% of the wood is pulp wood. It is used to produce cellulose and fiber - the raw materials for paper, paperboard, and cardboard. For example, the cupstock Huhtamaki uses for paper cup and food containers comes mostly from this origin.
- 15% are the smallest parts of wood, such as tree-tops, branches, bark, wood chips that are used in energy production.

[1] Source: Metsä Group

Briefly on the background

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Sustainable forests have been in focus in the last years, but the discussion goes way back in the history. In fact, the roots of the term sustainability date back to as early as the 18th century in Austria, Germany and Switzerland, where the term was used to describe how forests should be used in a way that would allow the future generations to benefit from them at least as much as the previous generations.[2]

In 1987,

the World Commission on Environment and Development (WCED) published a report called "Our common future"[3]. The report defined the principles for sustainable development, as they are known today. The document is known as the «Brundtland Report» after the Commission's chairwoman, Gro Harlem Brundtland.

In 1989,

the "Our common future" report[3] was debated in the UN General Assembly, which decided to organize a UN Conference on Environment and Development.

In 1992,

The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro approved the "Forest Principles", which was a summary of how sustainable forest management was understood then.

In 2007,

the United Nations General Assembly adopted the "Non-Legally Binding Instrument on All Types of Forests". It promotes the management and use of forests in a way that maintains their biodiversity, regeneration, productivity, and vitality.

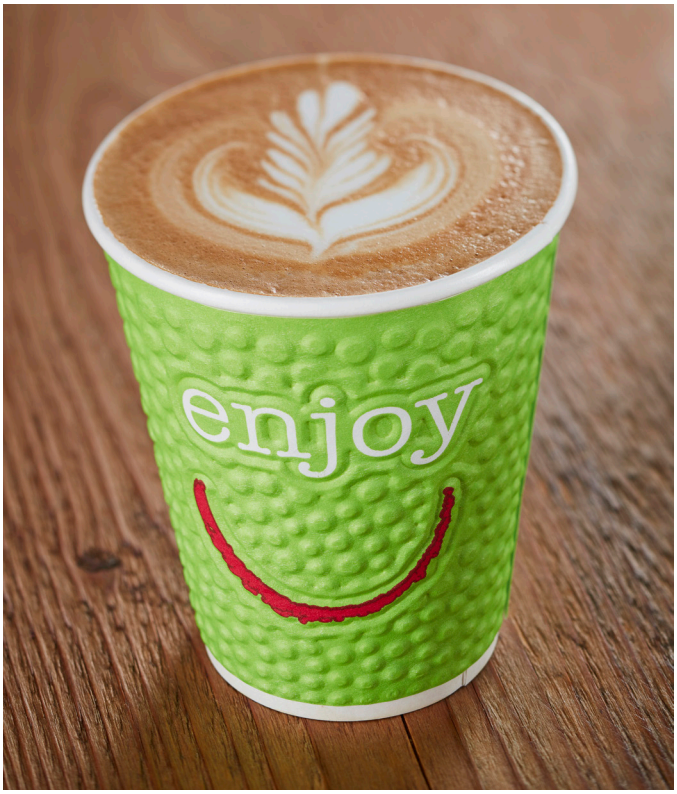
[2] Source: "Forest industries" by EU

[3] Source: "UN Milestones in sustainable development " by Federal Office for Spatial Development - Switzerland

Sustainably maintained forests are certified

Huhtamaki sources virgin fiber from certified forests, as it ensures that all our wood fiber supply is responsibly produced. The sustainability of forests is verified with a forest certification process. It is a voluntary process in which an independent third party assesses the quality of forest management and production against the requirements of a public or private certification organization.

There are several sustainable forestry certification programs that are run by organizations, such as Forest Stewardship Council® (FSC®), the Programme for the Endorsement of Forest Certification™ (PEFC™) and the Sustainable Forestry Initiative® (SFI®). Their forest management certification standards address a wide range of economic, social, environmental and technical aspects of forest management such as forest conversion, forest plantations, reforestation, pest management, forest management plans, health, safety and working conditions.



Forests are certified in two ways. A forest management certification evaluates whether the forests are maintained according to the agreed standards. Chain of Custody certification ensures that the certified wood material is identified or kept separate from non-certified material all the way from forest to consumer. For a wood-based product to be certified as sustainable, both forest management and chain-of-custody certification are needed.

Certifications help establish common principles in different environments as global forest ownership is diverse. Public owners typically hold large forest areas, whereas the ownership is more fragmented with private owners. Scale of ownership has an impact on forest management targets and practices.

Different programs for certified fiber

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Forest Stewardship Council FSC®

Change to: The Forest Stewardship Council® (FSC®) has ten rules that apply worldwide to forest certification. The system is supported by groups such as WWF, Sierra Club, Greenpeace, Natural Resources Defense Council and National Wildlife Federation.

The Programme for the Endorsement of Forest Certification PEFC™

PEFC is the world's largest forest certification system, containing nearly 50 member organizations globally. It covers the whole forest supply chain. PEFC promotes good practices in the forest management and ensures that forest products are produced with the highest ecological, social and ethical standards .

Sustainable Forestry Initiative SFI®

The U.S. based SFI forest certification standard promotes sustainable forest management, including requirements to protect Forests with Exceptional Conservation Value, water quality, biodiversity, wildlife habitat and species at risk. The SFI quality assurance and continuous improvement is ensured by an External Review panel consisting of independent experts.

Fiber is the main volume raw material for Huhtamaki

Wood-based raw materials are renewable and versatile, and their use is increasing around the globe. For example, in Europe and Northern parts of the globe, construction companies are building multi-store office and apartment buildings of wood. Many everyday consumer products are now also available in wood: sunglasses, watches, and bikes. The speed with which new wood-based products are introduced to the market is accelerating.

This creates new markets for wood and fiber and in Europe this this has accelerated the rate in which forest surface increases. According to World Economic Forum, today more than two-fifths of Europe is tree-covered. They state that between 1990 and 2015, the area covered by forests and woodlands increased by 90,000 square kilometres - an area roughly the size of Portugal.

Also, the food industry is using wood-fiber based products such as paper and cardboard increasingly, and, for example, already nearly 70% of Huhtamaki's product portfolio is made of fiber based products. Our goal is to use 100% of the wood fiber from recycled or certified sustainable sources. In 2018, we reached 98% level and continue working to reach the 100% goal.

Fiber-based food packaging on the rise

Huhtamaki's fiber is sourced from as close to the manufacturing sites as possible to minimize unnecessary transportation. The tree types used for fiber production vary from region to region. In Nordic countries, China and North America the fiber comes from spruce, pine and birch. In Asia it comes mainly from eucalyptus trees.

We use virgin fiber for food packaging with direct food contact, as only with it the food safety and hygiene can be guaranteed, and regulations met. Virgin fibers have specific qualities for appearance and processability which make them a good fit for food packaging with direct food contact. After use, virgin fibers return to the paper cycle as fresh cellulose, where it enhances the quality of recycled material.

Recycled fibers are sourced from manufacturing or from post-consumer recycled materials. We use residual clippings from our own paper cup manufacturing to make new fiber plates with molded fiber technology. From post-consumer recycled paper, we produce egg cartons and trays as well as cup carriers and wine bottle protectors.

What's in the cup?

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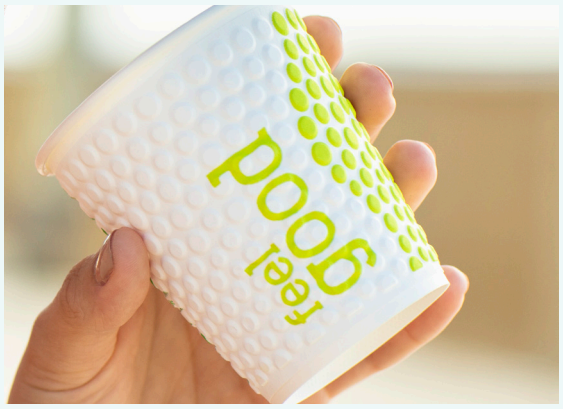
Huhtamaki's paper cups are produced from virgin paperboard to guarantee food safety. In addition to innovating new materials, we are developing the use of the existing materials and products.

One of our targets is to use less materials in our products. A good example of this is the double-wall paper cup Impresso. The bubbles on the cup surface have two benefits. They improve the insulation of the cup, so that the surface does not feel too hot to touch. The bubbles also make the cup stiffer, and we can produce the inner cup from thinner paperboard and reduce material use.

The high-quality wood fiber in our paper cups is sourced from sustainably managed forests, and it can be recycled up to seven times in other paper products before it loses its strength. After that it can be used to generate electricity or composted.



Recycling paper products drives lower greenhouse gas emissions. When a paper cup is recycled, the carbon footprint falls by a significant 54%. If a traditional paper cup is swapped for Huhtamaki's FutureSmart paper cup (with renewable bio-based coating) and it is also recycled, the footprint falls by 64%.

Innovating for more sustainable food packaging

Huhtamaki is increasingly investing in innovation that introduces renewable, safe materials and solutions for food packaging.

"Fiber packaging is a main innovation area for us, and in some applications, it can replace plastic fully," says Neil Whittall, Head of Sustainability, Fiber Foodservice Europe-Asia-Oceania. "For example, in 2019 we introduced paper straws that are made of fiber coming from sustainably managed forests. 100% of the paper used in the straws and in their wrapping is PEFC certified."

In addition, in 2019 Huhtamaki brought to market Fresh, an innovative, fully bio-based and biodegradable composite material made of cellulose. It is used to replace fossil-based food trays.

Paper straws

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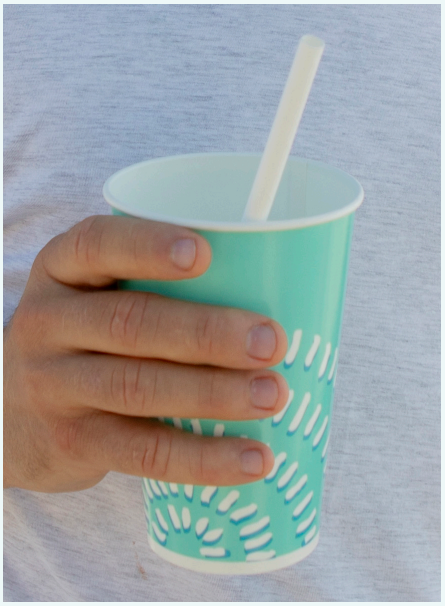

Today, our offering includes non-plastic straws. The safe and recyclable paper straws are a sustainable option:

- Paper straws will help in reducing plastic consumption and environmental pollution caused by plastic waste.
- Huhtamaki paper drinking straws are made from 100% PEFC certified paper sourced from certified sustainably managed forests. The straws are individually wrapped in 100% PEFC certified virgin kraft paper.
- Our unprinted straws are made of food grade paper. They have leading food safety certifications including FDA, and they have also been tested and certified for food safety in Europe, China and the United States. The paper substrate in use is certified for direct food contact by ISEGA in Germany.
- Our paper straws are crafted to ensure strength, reliability and functionality with purpose-built European machinery.

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