

INNOVATIVE AND SUSTAINABLE PACKAGING SOLUTIONS FROM FINLAND

BUSINESS
FINLAND

#FINLANDWORKS



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NEW, EMERGING PRODUCTS AND SOLUTIONS

WHY FINLAND?

BUSINESS
FINLAND

#1

LEADING COUNTRY
IN SUSTAINABLE
DEVELOPMENT

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#1

NUMBER 1 BUSINESS
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THE HAPPIEST
COUNTRY
IN THE WORLD

UN 2020 WORLD
HAPPINESS REPORT

WHAT IS INNOVATIVE AND SUSTAINABLE PACKAGING?

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MATERIAL

The packaging material is recycled, or it is made out of sustainably sourced raw materials or highly innovative, new material sources. The production process is also sustainable.

DESIGN

The design secures and maintains product quality and optimizes transport, handling, and storage. The appearance and quality of the material promotes high brand value.

CIRCULARITY

Disposal options for packaging materials include recycling, reuse, composting and biodegradation.

GLOBAL RACE FOR INNOVATIVE AND SUSTAINABLE PACKAGING

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Driven by changes in consumer preferences and regulation, by 2030, the global demand growth of innovative and sustainable packaging is forecasted to surpass that of fossil-based plastic packaging. At the same time, the global market value of innovative and sustainable packaging is said to be on its way to being close to that of traditional plastic packaging. Geographically, this growth is at its strongest in the Asia-Pacific region. Food and beverages is forecasted to be the fastest growing market segment.

DRIVERS

- 67% of consumers find it important that the products they buy are in recyclable packages.
- 73% of consumers are willing to pay more for eco-friendly packaging.
- Regional and national-level regulation is tightening significantly, e.g., by 2025, 65% of all packaging in the EU must be recyclable, and 70% must be so by 2030.

LANDSCAPE

- The global market is still fragmented and emergent: there is room for new companies despite the strong global players.
- Consumer preferences and local regulations vary significantly.
- Industry is transforming more rapidly than regulations require. Many of the global brands are aiming to have 100% recyclable packaging by 2025.
- Industry strategies emphasize both recyclability and biodegradability of the solutions.
- Large Asian economies heavily emphasize tightening regulation and new sustainable solutions.

SUSTAINABLE FUTURE

- The raw material basis continues to grow, including the use of recyclable, reusable and renewable raw materials.
- The world's fastest growing food and beverages segment increasingly adopts biodegradable and recyclable materials.
- Large economies introduce national standards, affecting solution providers' strategies.
- Bans on single-use plastics and packaging continue to expand globally.
- The overall trend emphasizes minimizing packaging waste.

FINLAND'S STRONGHOLDS

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Finnish companies' competitive edge is based on the globally leading position in the sustainable forest industry. At the same time, new and innovative raw materials are created. Finnish solutions' sustainability is based on certified forest resources, sustainable raw materials, engineering expertise, high product quality requirements, and pioneering legislation and standardization. Presently, different fiber-based materials account for 69% of Finland's packaging exports.

OUR EXPERTISE

- Packaging innovations based on sustainably produced wood biomass and pulp as well as other fibers.
- Decades-long, world-class expertise in the use of wood-based fibers: a strong sector of traditional cardboard packaging products.
- High-quality, biobased packaging barriers.
- Technology innovations: remote sensing, sensor technology, information security solutions and software development.
- A high level of design training and advanced packaging design services
- An increasing number of premium high-end SMEs.
- Established global companies with manufacturing sites in key locations.

FORERUNNER IN CIRCULAR ECONOMY

- Forerunner ambition: Climate-neutral Finland by 2035 based on the Finnish strategic program on circular economy. World's first roadmap to circular economy 2016-2025, updated in 2019
- World's first plastics circular economy roadmap 2018, updated in 2022: plastics circular economy by 2030
- First in the world: National Circular Design Programme 2022 for companies.

WORLD-CLASS EXPERTISE

H&M's COS and sustainable t-shirt pouch made of Paptic® material

Today's sustainability-driven brands are looking for alternatives to reduce the use of plastic in their packaging. COS, a Hennes & Mauritz brand, chose Paptic® to produce non-oil-based packaging for its T-shirt packaging. The brand found that the Paptic® material provided the perfect balance between packaging functionality, feel, and sustainability in its newly designed package.

AN EASY SWIFT FROM PLASTIC TO A MORE SUSTAINABLE ALTERNATIVE

The wood-fibre-based Paptic® materials are a recyclable alternative for plastics in packaging. They can be converted with existing converting machinery. Paptic® materials differentiate themselves from existing alternatives through their touch & feel, encourage to reuse of the packaging (when applicable), and enable easy recycling for consumers (in packaging papers and cardboard stream). The wood fibres used in the material production originate from sustainably managed forests and the material is available in an FSC®-certified form.

CONTACT

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WORLD-CLASS EXPERTISE

Unilever: More sustainable packaging through a smarter choice of label materials

Unilever has launched a Clean Future program that aims to reduce environmental impacts globally by moving from fossil raw materials to renewable or recycled ones throughout the creation, manufacture, and packaging of their cleaning and laundry products.

To reduce the environmental impacts of its packaging, Unilever has partnered with UPM Raflatac. By choosing RAFNXT+ labels for all Sunlight bottles in Thailand, Unilever is moving closer to a cleaner future.

RAFNXT+ is the world's first label material range verified by the Carbon Trust to help mitigate climate change. Through a smarter choice and use of renewable materials, along with using recycled content, products have lower carbon footprints than standard materials. The unique approach also shows how choosing RAFNXT+ over standard materials can increase forests' capacity to remove carbon dioxide from the atmosphere. RAFNXT+ offers companies like Unilever an opportunity to take positive climate action.

[Read more.](#)

UPMRAFLATAC



FORERUNNER RESEARCH

PACKAGING MATERIAL RESEARCH AT VTT

VTT offers research from laboratory to pilot scale in developing paper-based and bio-polymer-based barrier packaging materials. In addition to polymer material development, we test and develop coating technology for barrier materials. We have versatile pilot coating environment and polymer film pilot. [Read more.](#)

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PILOTS FOR CELLULOSE FILMS AND COATINGS

Cellulose films and coatings offer bio-based and sustainable alternatives for plastic packaging. After the development of novel concepts, piloting bridges the gap between the laboratory and industrial production. Tailored piloting lines can be used to produce barrier coatings and films by dispersion as well as by dissolution and regeneration. [Read more.](#)

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BELIGHT – LIGHTWEIGHT FOR PACKAGING

The main aim of the BeLight project was to find and develop sustainable bio-based material solutions for the lightweight, foamy products which promote circular economy. The BeLight project had two alternative approaches to solve the existing challenges: cellulose fiber-based foams and bio-based (and in some cases biodegradable) polymer foams. [Read more.](#)

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FORERUNNER RESEARCH

HIGH PERFORMANCE CELLULOSE COMPOSITES HiPer

HiPer enables efficient production of strong and lightweight composites with mechanical performance similar to current glass fiber composites. The production costs are also competitive with injected molded materials and the technology can enable high content of sustainable materials. [Read more.](#)

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4EVERPACK – TRULY CIRCULAR PACKAGING

The 4everPack project seeks to solve global packaging-related environmental challenges by doing world class research on packaging reuse together with its 14 company partners. 4everPack will provide unbiased researched data on packaging reuse in an attempt to turn packaging in a truly circular direction. [Read more.](#)

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CO-CREATING NOVEL FOLDING TECHNOLOGY

The aim of the Fold research project is to develop designs and potential product concepts for lightweight structures and packaging utilizing novel folding technology. [Read more.](#)

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FORERUNNER RESEARCH

SUSTAINABLE BINDERS AND COATINGS (SUSBINCO)

The SUSBINCO consortium aims to develop innovations to substitute fossil-based binders and coatings with bio-based solutions which can be used in packaging, paints, adhesives, sealants, and abrasives. Bio-based binders and coatings can significantly reduce the use of synthetic or even toxic chemicals and produce lower emissions. [Read more.](#)

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NOVEL FIBER SURFACES FUNCTIONALIZED BY LIGNINS (LigninReSurf)

LigninReSurf uses the lignin streams from biorefinery processes to achieve well-defined fractions with well-characterized structures for the development of high value applications, e.g., novel bio-based porous membranes for water purification, new coating formulations for functional surfaces and packaging as well as other bioplastic materials. [Read more.](#)

Contact: Åbo Akademi University, Chunlin Xu, cxu@abo.fi, +358 44 0362 088

LUT PACKAGING TECHNOLOGY

The research group of Packaging Technology combines manufacturing and material know-how, especially related to renewable fiber-based packaging materials and their converting. Our research group has versatile laboratory facilities for the characterization and conversion of materials, from laboratory- to pilot- and production-scale devices. [Read more.](#)

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WORLD-LEADING INNOVATION ECOSYSTEMS

ExpandFibre: accelerating the development of sustainable bioproducts

ExpandFibre (2020–2024) is a 50 M€ R&D collaboration and an Ecosystem launched by Fortum and Metsä Group and co-funded by Business Finland. It focuses on upgrading pulp fiber, hemicellulose and lignin from renewable and sustainable sources of straw and northern wood into new functional and sustainable bioproducts such as textiles, packaging solutions and biocomposites.

EXPANDFIBRE CONNECTS TO MULTIPLE R&D INITIATIVES BY FORTUM AND METSÄ GROUP

The research and development in ExpandFibre, which aims to produce new ground-breaking technologies and smart business concepts, is divided into seven key research themes: textiles, biocomposites, packaging, lignin products, hemicellulose products, sourcing & fractionation of straw and other fiber products.

EXPANDFIBRE CONNECTS TO MULTIPLE R&D INITIATIVES BY FORTUM AND METSÄ GROUP

Fortum and Metsä Group aim to inspire a larger global ecosystem to join the mission as ExpandFibre invites actors in the seven key value chains to join in building a world-leading innovation ecosystem to commercialize new bioproducts and green businesses. The ExpandFibre Ecosystem is a unique opportunity for finding innovation and collaboration partners, exploring new business opportunities as well as taking part in cross-discipline and end-to-end cooperation in value chains.

CONTACT EXPANDFIBRE PROGRAMME MANAGERS

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Metsä Group: Katariina Kempainen, VP, Group R&D at Metsä Spring, katariina.kempainen@metsagroup.com, +358 (0)50 375 2212, www.metsagroup.com



WORLD-LEADING INNOVATION ECOSYSTEMS

4Recycling : Sustainable solutions for retail packaging

We focus on bringing sustainable bio-based solutions to retail packaging and addressing the recycling of diverse packaging waste. The aim is to ensure that high-performing bio-based and circular solutions are available and adopted by brand owners to replace fossil-based packaging solutions in the areas where it is feasible and pursued.

SUPPORTING KNOWLEDGE AND BUSINESS DEVELOPMENT

We support both knowledge and business development in the context of a transition of traditional industry sectors towards cross-industry collaboration and business. We have created RDI roadmaps and aim to form joint collaborative RDI projects. The [SUSBINCO](#) project develops bio-based binder and coating solutions for various applications, such as packaging and barrier materials, [Engage4BIO](#) understanding-intensified-engagement-training-and-development-in-regional-bio-based-systems/ supports engagement, training and development in regional bio-based systems, and [PLASTin](#) discovered new ways to handle plastic waste streams. We also plan joint activities for shaping the market and operational environment to allow faster commercialization and new business.

MULTISTAKEHOLDER COLLABORATION

We are an open ecosystem platform for both public and private organizations. We gather information on public projects and relevant actors in Europe and connect actively with international clusters and partnerships, such as the [S3 Partnership](#) for food packaging. [Read more and join our newsletter.](#)

CONTACT US FOR COLLABORATION

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4Recycling



FIND NEW OPPORTUNITIES WITH FINLAND

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INVEST IN FINLAND

Invest in Finland helps international companies and investors to scout business opportunities in Finland and set up their businesses here. These services are confidential and complimentary and tailored to meet your precise needs. www.investinfinland.fi

OUR SERVICES

- Data collection and analysis
- Opportunity analysis
- Guidance on entry alternatives
- Networking
- Location management
- Advice for setting up a business
- Aftercare services

TEAM FINLAND NETWORK

The Team Finland Network promotes and accelerates exports and international growth of SMEs, attracts international investments and tourism to Finland and reinforces Finnish expertise.

OUR SERVICES

- Advisory services for internationalization
- Services supporting international networking and establishment of contacts
- Services which improve internationalization capabilities and competence
- Funding services facilitating internationalization
- Information and advisory services on markets and the operating environment in target countries and on opportunities in international markets
- Guidance on barriers to trade
- Services to promote tourism to Finland from abroad
- Services for foreign capital investors and enterprises investing in Finland

SOLUTIONS FOR PACKAGING MANUFACTURERS

BUSINESS
FINLAND

1. RAW MATERIALS

CH-Bioforce
Granulous
Metsä Board
MM Kotkamills Boards
Paptic
Stora Enso
UPM Biofuels
UPM Pulp
UPM Specialty Papers
Woodyly

2. DESIGN

DesignCompany
Sense N Insight

3. PRINTING, MARKING AND LABELS

Dr. Lankinen Graphic Innovations
Marvaco
UPM Raflatac

4. SUSTAINABLE GLUES, TAPES AND BARRIERS

CH-Polymers
Kiilto
Lemtapes

1. RAW MATERIALS

BUSINESS
FINLAND

CH-Bioforce

Granulous

Metsä Board Corporation

MM Kotkamills Boards

Paptic

Stora Enso

UPM Biofuels

UPM Pulp

UPM Specialty Papers

Woodly



BARRIER MATERIALS FOR THE PACKAGING INDUSTRY

OUR SOLUTION

There is also a great need globally to decrease the usage of fossil based raw materials in the packaging industry. CH-Bioforce has a solution for this. CH-Bioforce offers a sustainable and completely non-wood based raw material for the production of barrier materials. Our technology enables the conversion of agricultural waste streams like straw to valuable biopolymers like hemicellulose and cellulose/micro fibrillated cellulose that can be used in barrier materials. Our business model is our own production and to license our patented technology.

BENEFIT FOR THE CUSTOMER

- High product quality hemicellulose & cellulose/microfibrillated cellulose.
- Environmentally friendly, carbon neutral and cost-competitive process.
- Wide range of biomass side streams, can be used as a feedstock.

COMPETITIVE ADVANTAGE

Our process uses biomass as feedstock and agricultural side streams such as straw. Fossil raw materials can

be replaced in packaging applications. Technology, protected by several patent families, has been thoroughly evaluated in the pilot plant. Superior material efficiency and cost competitiveness.

COMPANY

CH-Bioforce, founded in 2016, is the developer of the best biomass fractionation technology in the world. The technology and process are based on deep understanding of fundamental biomass chemistry.

REFERENCES

Currently operating at pilot scale. Materials tested by several barrier material producers. Finalizing funding for an industrial-scale biorefinery.

CONTACT

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BIO-COMPOSITES MADE FROM SPENT GRAINS

OUR SOLUTION

Granulous Biocomposites is a material developer based in Finland. The company has developed the proprietary plant-based polymer matrix material that is used to create this bio-composite from spent grain. The first recipe, SG40-HC, is a mixture of plant-based polymers and at least 40% spent grain, a very abundant waste product from the beer brewing industry. The material is home compostable while most other biodegradable plastics can only be composted in industrial composting facilities.

BENEFITS FOR THE CUSTOMER

- Multiple end uses.
- Works with existing molds, no need for big changes in injection molding.
- Option for plastics.

COMPETITIVE ADVANTAGE

The fibers from the spent grain reinforce the material and thereby improve the strength and stiffness of the molded product.

The mechanical properties of the material are close to those of polypropylene. Compostability creates a unique feature for products as well.

COMPANY

Granulous is based in Kainuu, Finland and our aim is to create huge impacts with tiny changes. The world needs actions taken on environmental issues more than it needs mere words. We are here to make the necessary changes.

REFERENCES

Upon request.

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METSÄ BOARD PREMIUM LIGHTWEIGHT PAPERBOARDS

OUR SOLUTION

The Metsä Board product range covers lightweight folding boxboards, food service boards and white kraftliners. Our folding boxboard range includes lightweight paperboard with a natural look and feel as well as coated paperboard for premium image reproduction. Our barrier boards are suitable for food, food service and other packaging applications that require resistance to grease or moisture. The portfolio includes PE coated paperboards and an easily recyclable and compostable dispersion barrier board. Our white kraftliners offer high performance for even the most demanding packaging applications.

BENEFITS FOR THE CUSTOMER

- Made from pure and fully traceable fresh wood fiber, product safety that exceeds regulations.
- Lightweight for sustainability and yield, easily recyclable.
- Excellent printing results, quality consistency for higher productivity.

COMPETITIVE ADVANTAGE

With our lightweight paperboards, customers can use lighter packaging material without compromising strength and stiffness. This helps reduce packaging CO₂ across the value chain and save resources.

COMPANY

Metsä Board creates value by helping customers to advance their business and sustainability targets with our innovative paperboards as well as sustainability, technical and packaging design services.

REFERENCES

We cooperate with global brand owners in food, food service, cosmetics, healthcare and other end use areas. Please visit our website for references.

CONTACT

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EASILY RECYCLABLE CARTONBOARD FOR PACKAGING

OUR SOLUTION

MM Kotkamills produces innovative products created from wood, a renewable natural resource. Its range of sustainable products includes food-safe consumer boards, the high-quality saturating kraft paper Absorbex®, and ecological wood products. The fully recyclable ALASKA® and ISLA® boards produced since 2016 were complemented in 2018 with water-based dispersion barriers, replacing plastics used in packaging and food service applications. All our products are environmentally friendly, recyclable and safe to use. MM Kotkamills joined MM Board & Paper in 2021.

BENEFITS FOR THE CUSTOMER

- Easily recyclable board for replacing plastics in packaging, completed with grease and moisture barriers.
- Excellent printability enabling great visualization of brand and product details.
- Notable reduction in carbon footprint and environmental impact, payback value from recycled fibers.

COMPETITIVE ADVANTAGE

Food-safe, easily recyclable sustainable Folding Boxboards and Barrier Boards are produced directly on the state-of-the-art board machine with no need for additional external coatings.

COMPANY

MM Kotkamills, a part of the MM Group, is a producer of cartonboard, saturating kraft paper and sawn timber, promoting sustainable development through innovative, recyclable products.

REFERENCES

Luonkos sustainable natural cosmetics packages made from MM Kotkamills boards, www.luonkos.fi/en.

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www.kotkamills.com



KOTKAMILLS



PAPTIC® MATERIALS REPLACE PLASTIC IN PACKAGING

OUR SOLUTION

Paptic® is a wood-based, recyclable, reusable next-generation packaging material. Forging a category of their own, Paptic® materials combine the best features of existing materials – like printability, durability, and versatility. The unique touch and feel properties make the materials stand out from conventional materials in numerous flexible packaging applications. Plastic can easily be replaced with Paptic® in product packaging, carrier bags, and e-commerce mailers, to name a few examples.

BENEFITS FOR THE CUSTOMER

- Scalable Paptic® materials are produced and converted on existing machinery. The switch from plastic to sustainable Paptic® is made easy.
- Recyclable Paptic® helps consumers to act responsibly. Paptic® is to be recycled with cardboard and packaging papers.
- Paptic® is a sustainable choice to replace plastic in numerous packaging applications. For example, product packaging, bags, and e-commerce mailers.

COMPETITIVE ADVANTAGE

Scalable Paptic® is the only material on the market offering a combination of the versatility of plastic and the sustainability of paper. Paptic® enables the fastest route for brands to switch from oil-based packaging to renewable and recyclable materials.

COMPANY

Paptic Ltd. is a high-growth company established in 2015. Its industrial-scale production began in 2018. The company employs over 30 professionals, and Paptic® materials are delivered to 50+ countries.

REFERENCES

COS, Stockmann, fischertechnik, Sokos, and Decathlon Singapore. An e-commerce mailer made of Paptic® has won the WorldStar award.

CONTACT

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www.paptic.com



NEW PREMIUM WHITE TOP PACKAGING BOARD

OUR SOLUTION

AvantForte WhiteTop kraftliner is engineered to meet brand owners' needs for safe, high-performing, and plastic-free packaging. The new product will serve end-uses that require exceptional strength, purity, and visual appearance. The white-top kraftliner targets demanding premium segments, such as fresh food, e-commerce, and shelf-ready packaging.

BENEFITS FOR THE CUSTOMER

- Enables high-quality print combined with strength and purity.
- Visual appearance and print quality helps brand owners enhance the consumer packaging experience.
- 100% virgin fiber, OBA-free.

COMPETITIVE ADVANTAGE

Through Stora Enso's patent-pending technology, Tri-Ply™, the product is equipped with three fiber layers to maximize its strength and help converters and brand owners use less material than with traditional kraftliners.

COMPANY

Stora Enso is a leading provider of renewable products in packaging, biomaterials, wooden construction and paper, and one of the largest private forest owners in the world.

REFERENCES

N/A

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UPM BIOVERNO NAPHTHA – WOOD REPLACES PLASTIC

OUR SOLUTION

Many components which require plastics are used in packaging solutions. We are helping you to switch these usually fossil-based plastics to a more sustainable solution made from UPM BioVerno naphtha. UPM BioVerno is a drop-in biofeed sourced from crude tall oil, a wood-based residue of the pulp making process. Put simply, it is a true product of the circular economy. UPM BioVerno naphtha can be used in all the same chemical industry solutions where fossil-based naphtha is used. UPM BioVerno naphtha is fully compatible with existing production and recycling infrastructures.

BENEFITS FOR THE CUSTOMER

- Our products help to reduce carbon footprint significantly compared to fossil alternatives.
- UPM BioVerno's renewable raw material is crude tall oil, a residue of the pulp making process.
- Ideal for replacing fossil raw materials in packaging solutions, such as beverage cartons or labels.

COMPETITIVE ADVANTAGE

Every ton of UPM BioVerno used saves three tons of carbon dioxide emissions compared to fossil

raw material. It has all the usual benefits of plastic – durability, flexibility and recyclability. It is the purer solution whenever plastic is required, such as in packaging of food or beverages.

COMPANY

We at UPM Biofuels offer our customers ways to replace fossil raw materials and reduce their carbon footprint. UPM Biofuels is a part of UPM, and we create a future beyond fossils.

REFERENCES

Companies such as Elopak, Arla, Greatview and UPM Raflatac are already utilizing our UPM BioVerno biofeed in their sustainable packaging solutions.

CONTACT

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FROM FOSSILS TO A BIOECONOMY WITH PULP

OUR SOLUTION

We provide products for a future beyond fossils by producing sustainable pulp made from natural and renewable resources. While doing this, we create value for society as a company, through our products, and the side products generated during pulp production. We are committed to responsible business practices and demand high standards throughout our value chain. As our customers face ever-increasing demands for better transparency, more sustainable options and ways of doing things, we are committed to helping create these new solutions and providing the answers that our customers need.

BENEFITS FOR THE CUSTOMER

- Versatile selection of fibers for various packaging applications.
- Reliability in quality matters, security of supplies and as a responsible business partner.
- Technical support on how to make the most of our fibers in our customers' packaging materials.

COMPETITIVE ADVANTAGE

We serve the global market with the industry's most versatile portfolio of sustainably produced fibers through our own sales and service network. With our range of eucalyptus, birch and softwood pulps, we help our customers provide alternatives to fossil-based materials for their customers.

COMPANY

UPM is one of the world's leading producers of northern softwood, birch and eucalyptus pulp. UPM Pulp is a part of UPM, and we create a future beyond fossils.

CONTACT

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BARRIER PAPERS FOR RENEWABLE PACKAGING

OUR SOLUTION

The UPM Confidio™ family of barrier papers can help you replace conventional fossil-based packaging materials with a renewable alternative. These recyclable and heat sealable barrier papers offer moisture and grease resistance and protect your product from the packaging line to the end of its shelf life. UPM Confidio barrier papers are certified for food safety and designed for dry, frozen and greasy foods. UPM Confidio is produced with fibers from sustainably managed forests.

BENEFITS FOR THE CUSTOMER

- Heat sealable solutions that enable a streamlined conversion process and efficient lead times.
- Designed to be recyclable in existing fiber recycling streams.
- Moisture resistance, grease resistance and a mineral oil barrier in one single product.

COMPETITIVE ADVANTAGE

UPM Confidio papers are designed to make the transition from fossil-based to renewable packaging easy.

These heat sealable barrier papers help enhance converting efficiency, reducing one conversion step.

COMPANY

At UPM Specialty Papers, we deliver high-performance and renewable materials for packaging and labelling, based on paper. UPM Specialty Papers is a part of UPM, and we create a future beyond fossils.

REFERENCES

Please contact your UPM representative.

CONTACT

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www.upmspecialtypapers.com



UPM SOLIDE LUCENT FOR HIGH-BARRIER PACKAGING

OUR SOLUTION

UPM Solide™ Lucent is a strong and extremely versatile specialty kraft paper, with a unique look and feel. With its smooth surface and high strength density, this natural white, translucent paper offers superior properties for further converting and printing. It works especially well as a coating base and for lamination. With UPM Solide Lucent, the options for co-creation of truly sustainable medium- and high-barrier packaging solutions are endless. The paper is safe for food contact, and it is recyclable and compostable. The paper is produced with fibers from sustainably managed forests.

BENEFITS FOR THE CUSTOMER

- An excellent coating base for creating even the highest barrier packaging solutions.
- Recyclable in existing fiber recycling streams.
- The high strength of paper maximizes performance on packaging lines.

COMPETITIVE ADVANTAGE

UPM Solide Lucent serves as an excellent base paper for further converting: the paper is very smooth,

dense and strong, while its structure enables a lightweight and uniform coating. As a coating base, it is as close to a drop-in solution as paper gets.

COMPANY

At UPM Specialty Papers, we deliver high-performance and renewable materials for packaging and labelling, based on paper. UPM Specialty Papers is a part of UPM, and we create a future beyond fossils.

REFERENCES

Novel food packaging solutions for demanding enduses:

- Huhtamaki ultra high-barrier paper solution OmniLock™ Ultra PAP
- Co-created oneBARRIER FibreCycle structure by BOBST, UPM and Michelman

CONTACT

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Solutions for packaging manufacturers:

1. Raw materials



**BUSINESS
FINLAND**

PIONEER IN WOOD-BASED PLASTICS

OUR SOLUTION

Our commercial product is a new type of wood cellulose-based, carbon-neutral, recyclable and transparent plastic material – Woodyly®. Our company is redesigning plastics by bringing to the market a range of products with a reduced dependency on fossil feedstock, smaller carbon footprint and easier recyclability. Products packaged in Woodyly® material can vary from foods such as herbs, grilled sausages and sandwiches to flowers and clothing. Alongside various product packaging, Woodyly® is also suitable for many other applications such as storage containers, cups and other symmetrical items.

BENEFITS FOR THE CUSTOMER

- Our unique Woodyly® is wood-based, carbon-neutral and made from renewable materials.
- Woodyly is easy to process on conventional plastics' production lines. No new infrastructure is needed.
- Companies can reduce their dependence on fossil-based materials with the help of Woodyly.

COMPETITIVE ADVANTAGE

Woodyly is easy to process on conventional plastics production lines. No new infrastructure is needed. Our carbon-neutral and wood-based material is food contact-approved, recyclable and made from renewable materials. Woodyly is set to become the most valuable material brand in the world by 2035.

COMPANY

Woodyly Ltd. is a pioneer in wood-based plastics. We offer solutions to global climate-related problems. We support a circular economy approach. We strive for a global climate-positive change.

REFERENCES

Kespro, Wihuri, and Meira Nova, VR Group, St1, R-kioski, Compass Group, K-Group, Neste K, Treston, SSP Finland.

CONTACT

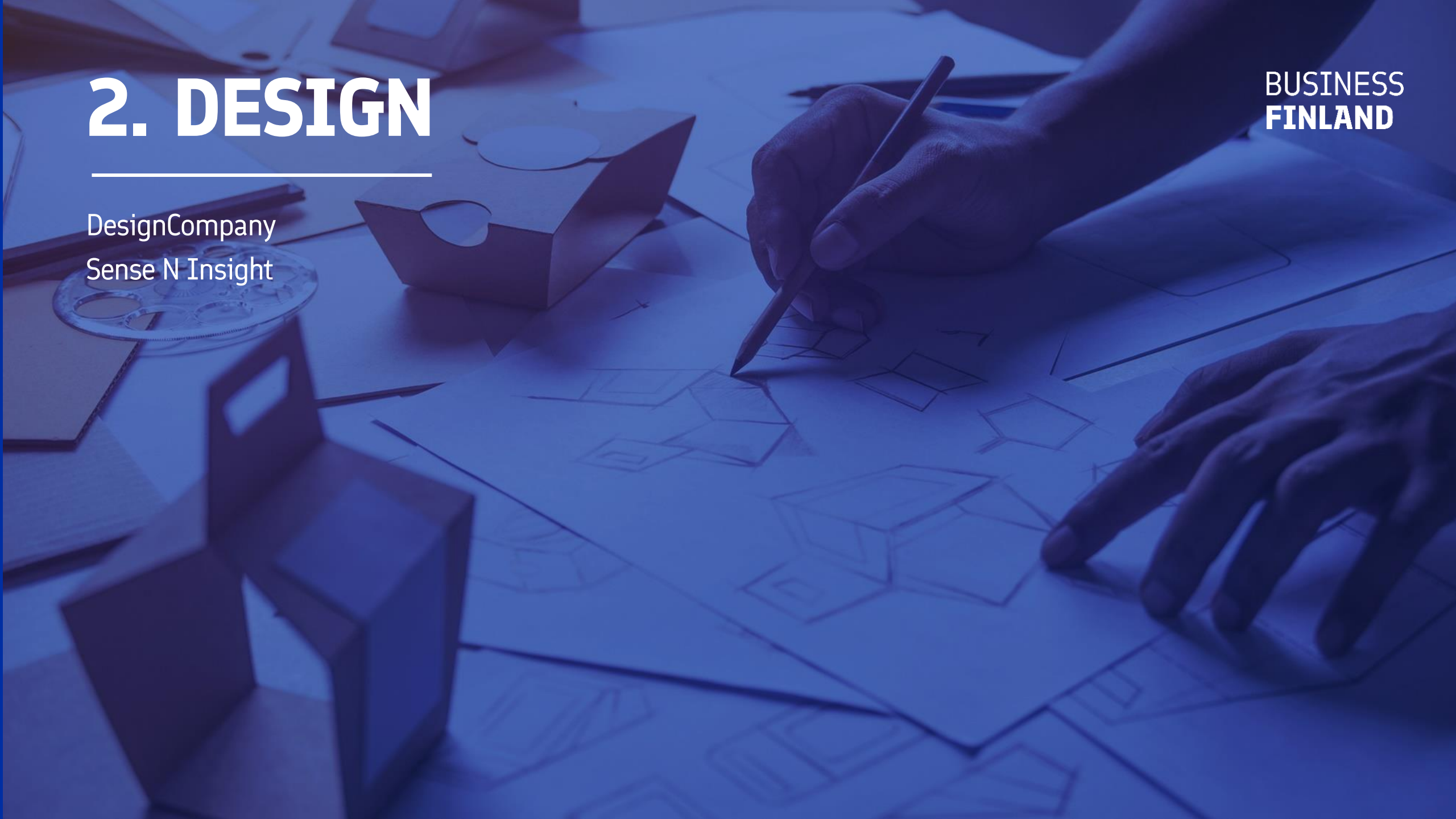
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2. DESIGN

DesignCompany
Sense N Insight

BUSINESS
FINLAND





PACKAGING DESIGN FOR OUR PLANET'S FUTURE

OUR SOLUTION

DesignCompany is a Nordic design studio focused on branding based on packaging. We offer help on the whole journey from concept to ready product. Ecological choices are very important to us. In Finland, there's high level of priority placed on climate-friendly packaging, because nature and the planet have always been very close to our hearts. We have a wide knowledge of using cellulose-based packaging materials instead of plastic. DesignCompany has a broad network of connections with the Finnish forest industry. Our design philosophy is based on authenticity, simplicity, and Nordic innovation.

BENEFIT FOR THE CUSTOMER

- We help you through the full packaging design project from idea to product.
- Pure Scandinavian design.
- Extensive experience in implementing ecological packaging solutions for products.

COMPETITIVE ADVANTAGE

- Over 20 years of experience in packaging design all the way from concept to product.
- We understand brand owners' needs and are capable to accommodate them.

- A very strong technical understanding of packaging design.
- A well-liked and reliable business partner.

COMPANY

DesignCompany is an innovative packaging design agency specializing in packaging solutions, relating product characterizing and branding. Technical expertise is a key strength of DesignCompany.

REFERENCES

Valio, the largest dairy in Finland. Anora, the leading alcohol monopoly in the Nordic region. Metsä Board, the leading producer of premium fresh fiber paperboard.

CONTACT

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PROFOUND PACKAGING TESTING FOR MAXIMAL VALUE

OUR SOLUTION

Shelf visibility testing: Shelf differentiation is simple to measure and is important to conduct in the early phases of the packaging design process.

User experience measurement: A packaging experience that increases consumer and brand value results from a multi-sensory interaction between the consumer and the packaging.

Professional labeling: Carefully prepared packaging labels present a reliable image of your product and brand. Free up resources for core tasks and let professionals take care of the correctness and legal compliance of packaging labels.

BENEFITS FOR THE CUSTOMER

- Maximized shelf visibility
- Ultimate user experience
- Easy-to-read packaging labels

COMPETITIVE ADVANTAGE

We produce easy-to-understand information to support companies in packaging design related decision-making processes. Each of our studies is

individually tailored to meet the needs of our customers and we combine the best packaging testing methods with the latest technology and tools.

COMPANY

Sense N Insight (founded in 2017) offers consumer testing and consulting services related to packaging design, development, labeling, and food legislation.

REFERENCES

Dolea, Jospak, Metsä Board, Paptic, Woody

CONTACT

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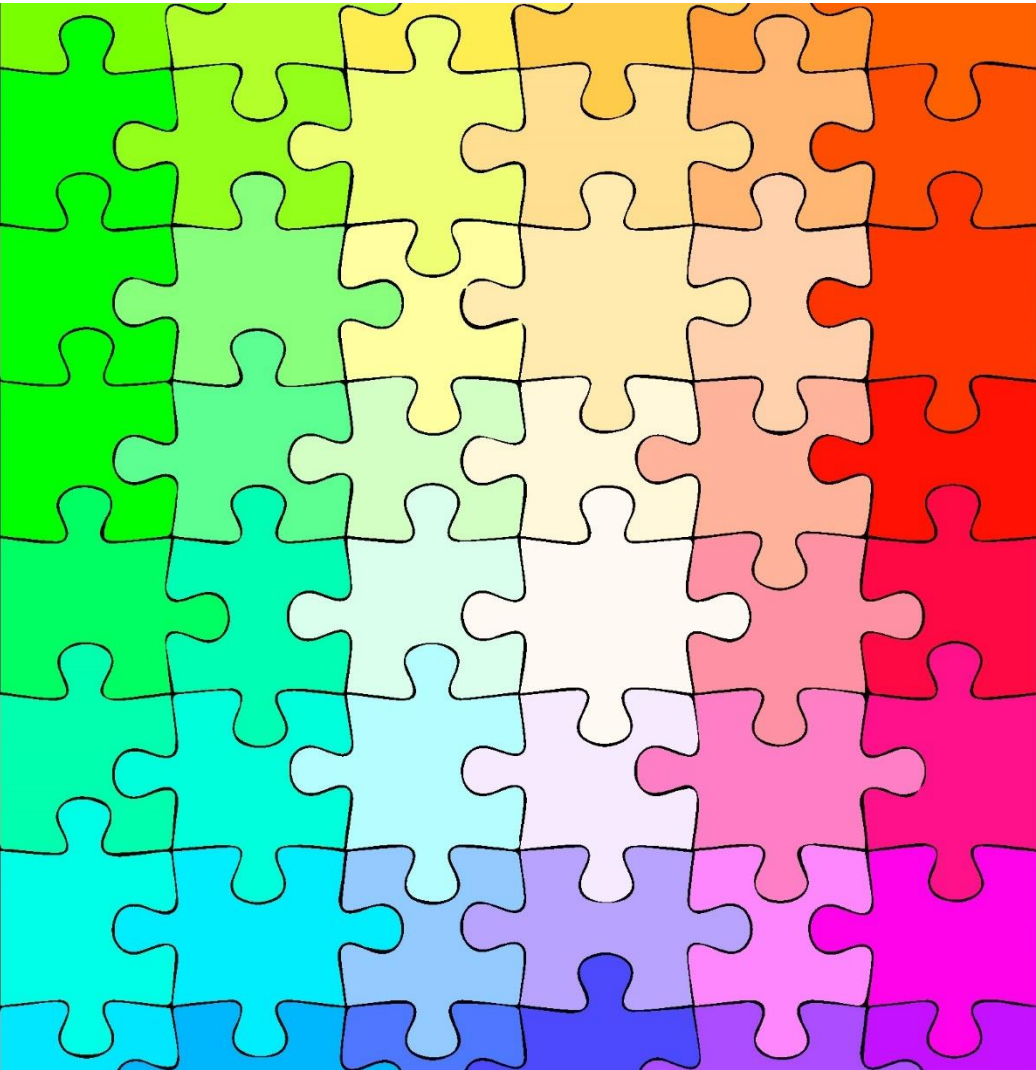
3. PRINTING, MARKING AND LABELS

BUSINESS
FINLAND

Dr. Lankinen Graphic Innovations

Marvaco

UPM Raflatac



EXPANDED COLOR GAMUT FOR ECO-EFFICIENT PRINTING

OUR SOLUTION

The expanded color gamut method, ECG, is implemented in collaboration with packaging printers and brand owners and our consultancy helps printers and CPCs become more eco-efficient. This means being able to produce more with less resources in packaging printing.

BENEFITS FOR THE CUSTOMER

- Produce more with less.
- Become more eco-efficient.
- Become more flexible.

COMPETITIVE ADVANTAGE

The solution has been investigated for nearly 20 years and the results have been proven with multiple partners. Consultation to ECG implementation helps packaging printers and CPCs to become more eco-efficient with printed packaging.

COMPANY

Dr. Lankinen Graphic Innovations Ltd. was established in 2022 as a spin-off from a doctoral study "Efficiency of Expanded Gamut Printing in Flexography" by Dr. Kai Lankinen.

REFERENCES

Dr. Lankinen has consulted packaging printers in South Africa, Central Europe, Asia and Nordic countries. The ECG solution can be utilized globally.

CONTACT

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GREENER PACKAGING PRINTING

OUR SOLUTION

Our Expanded Gamut Printing, EGPT™, color separation for packaging printing makes the process more efficient, flexible and sustainable. It also enables to increase quality and colorfulness of the packaging.

BENEFIT FOR THE CUSTOMER

- Sustainability.
- Flexibility.
- Efficiency.

COMPETITIVE ADVANTAGE

Competitors offer traditional color separation for packaging. Marvaco makes EGPT™ color separation in a modern way that saves energy, materials, reduces VOC and improves efficiency and flexibility.

COMPANY

Marvaco is European pioneer in EGPT™ technology and the leading solution supplier in Europe.

REFERENCES

Since 2015, over 100 000 package designs have been converted for greener printing with Marvaco's help. These are for printers, brand owners and retailers.

CONTACT

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THE LEADING LOW-CARBON LABEL LINE RAFNXT+

OUR SOLUTION

The RAFNXT+ line is a low-carbon alternative to traditional self-adhesive labeling materials and includes food, retail, logistics and home care labeling solutions. By making smarter choices and using renewable materials, along with using recycled content, RAFNXT+ features products with smaller carbon footprints than standard labeling materials. While we continue to reduce our carbon footprint, we are also taking immediate action with the emissions that cannot be reduced to zero today. To reduce our climate impact further, we also offer the opportunity to choose CarbonNeutral[®]-certified RAFNXT+ products.

BENEFITS FOR THE CUSTOMER

- RAFNXT+ product design results in lower carbon footprints and the UPM Raflatac approach quantifies the impact based on the externally verified model in accordance with international GHG standards.
- Together with the product designed for each end-use need, customers have access to this data!

COMPETITIVE ADVANTAGE

Our externally verified LCA study (IAW ISO 14040/44 and PAS 2050) allows us to demonstrate the impact of making more sustainable choices. This unique approach also highlights how choosing RAFNXT+ over standard materials can increase forests' capacity to remove carbon dioxide from the atmosphere.

COMPANY

UPM Raflatac is the industry leader in sustainable labeling via its self-adhesive label materials and services. UPM Raflatac is a part of UPM, and we create a future beyond fossils.

REFERENCES

[Please have a look at our website.](#)

CONTACT

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STOP THE LEAK WITH THE OCEAN ACTION LABEL

OUR SOLUTION

The ocean plastic issue is real, and so is our solution. UPM Raflatac Ocean Action label is the world's first certified label material to fight ocean-bound plastic pollution. It's made from chemically recycled Ocean-Bound Plastic (OBP), which is plastic waste defined as at risk of ending up in the ocean. Chemical recycling enables the recycling of poor-quality plastics that would otherwise end up in landfills. Ocean-bound plastic labels reduce the pressure on using virgin feedstocks by enabling the switch to an innovative recycled label material that also enhances circular economy.

BENEFITS FOR THE CUSTOMER

- Ocean Action labels respond to a global challenge to cut the ocean plastics leak at the source.
- This recycled label material can smoothly replace traditional options with identical quality and performance to conventional fossil-based films.
- The label material is ISCC-certified using the mass balance approach.

COMPETITIVE ADVANTAGE

The Ocean Action label is the world's first label material that can help stop an ocean-bound plastic leak at the source. It's an innovative product that uses ocean-bound plastic as a label material, with an aim to create a demand for reclaiming plastic waste before it pollutes our oceans.

COMPANY

UPM Raflatac is the industry leader in sustainable labeling with its self-adhesive label materials and services. UPM Raflatac is a part of UPM, and we create a future beyond fossils.

REFERENCES

[Please have a look at our website.](#)

CONTACT

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PLASTIC LABELS FROM THE FOREST

OUR SOLUTION

Climate change requires us to take action to reduce carbon emissions and find alternative materials to replace fossil materials. UPM Raflatac Forest Film™ is the world's first wood-based film label material on the market certified by the ISCC with a mass balance approach. Forest Film is based on UPM BioVerno naphtha, a 100% wood-based solution made from residue of the pulping process, from sustainably managed forests. It's produced by using renewable resources to replace an equivalent amount of fossil resources in the production process.

BENEFITS FOR THE CUSTOMER

- Increased sustainability with identical performance.
- Based on UPM BioVerno naphtha, a 100% wood-based solution from residues of pulping process, from sustainably managed forests.
- Does not compete with raw materials or land use for food production.

COMPETITIVE ADVANTAGE

UPM Raflatac Forest Film™ is the first wood-based film label material on the market, replacing virgin fossil-based film material. Every ton of Forest Film label material reduces 1 ton of used fossil raw materials, helping the brand owners to reduce the carbon footprint of their products.

COMPANY

UPM Raflatac is leading in sustainable labeling with its self-adhesive label materials and services. UPM Raflatac is a part of UPM, and we create a future beyond fossils.

REFERENCES

[Please look into our website.](#)

CONTACT

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4. SUSTAINABLE GLUES, TAPES AND BARRIERS

BUSINESS
FINLAND

CH-Polymers

Kiilto

Lemtapes





CHP BAR – MAKE YOUR PRODUCT MORE SUSTAINABLE

OUR SOLUTION

CHP BAR products are a line of ready-for-use coatings that can be applied on-line or off-line, with various coaters or printing equipment. We have solutions for board producers and converters alike. So using novel technologies instead of PE is now a real option. Now it is up to us all as consumers to make the change happen – the technology is there for you!

BENEFITS FOR THE CUSTOMER

- CHP BAR water-based barrier coatings enable solutions that are repulpable, recyclable, renewable, and biodegradable for food packaging and non-food packaging.
- They can be run in existing coating color mixers and paper machine production facilities for pigment coating, and in printing machines.
- Typical end uses: fast food, frozen food, bakery products, cups and plates.

COMPETITIVE ADVANTAGE

Our customers have been highly satisfied with the seamless co-operation between our R&D and production staff. We are known for top-notch quality and reliable deliveries.

COMPANY

Founded in 2009, CH-Polymers' business continues from 1971. Our binder know-how has developed over the years with the help of industrial partners and joint ventures.

REFERENCES

Available upon request..

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SUSTAINABLE BIOBASED AND BIODEGRADABLE ADHESIVE SOLUTIONS

OUR SOLUTION

The mission of Kiilto is to help the packaging sector make fiber-based packaging with a lower environmental footprint.

KIILTO BIOMELT: Biodegradable hot melt, Kiilto Biomelt, enables a fully compostable packaging solution, for example, for take-out food. It can be used in standard hot melt equipment, so it requires minimal changes to the standard packaging production process.

KIILTO PRO PACK ECO: Bio-based Kiilto Pro Pack Eco product line of dispersion adhesives helps to reduce the carbon footprint of the adhesive compared to the industry standard products without any compromise in the performance or usability of the glue.

BENEFITS FOR THE CUSTOMER

- Biomelt:
- Sustainable
 - Capable of differentiation
 - Fully compostable packaging
 - High bio-based content

COMPETITIVE ADVANTAGE

Kiilto Biomelt and Kiilto Pro Pack Eco both are feasible to use in standard equipment in the packaging line, so testing the feasibility of your product is very easy.

COMPANY

Kiilto is a growing, family-owned company, with a history of more than 100 years. We take pride in our own research, development, and innovation functions.

CONTACT

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Lemtapes reinforcement tapes solve the problem of weak, bulging packaging

Reinforcement



LEMTAPES
Invisible strength

FOR SUSTAINABLE AND FUNCTIONAL PACKAGING

OUR SOLUTION

Lemtapes is an award-winning packaging solutions provider that offers sustainable and recyclable tapes to reinforce packaging and enable easy opening and re-closing. We create added value for food & beverage and non-food goods in retail and e-commerce businesses.

BENEFITS FOR THE CUSTOMER

- Reinforced packages which are prevented from bulging and breaking.
- Every product enables the usage of thinner cardboard.
- Reduction of paper material usage up to 23%.
- Easy-opening mechanism for shelf-ready and e-commerce packaging
- Easy-sealing with Fingerlift closing tape

COMPETITIVE ADVANTAGE

- Eco Tape – All the core fibers are made of recycled polyester (r-PET) Pure Tape.
- The core fibers are made of natural raw material, cellulose
 - The part of organic components is 75% Production located in Finland.

COMPANY

Lemtapes is an award-winning solution provider and producer of ecological, innovative tapes and adhesives for the packaging and woodworking industries.

REFERENCES

[Please have a look at our website.](#)

CONTACT

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SOLUTIONS FOR PACKAGING BUYERS

BUSINESS
FINLAND

1. CONSUMER PACKAGING

Ecopulp Finland
Esbottle / Fizzy
NWB Finland
Starcke
Stora Enso
Sulapac

2. FOOD PACKAGING

Dolea
Huhtamaki
Jospak
Pyroll Packaging
Wipak

3. PACKAGING AS A SERVICE

Kamupak

4. PHARMA AND HEALTHCARE

Jaakkoo-Taara

5. TRANSPORT PACKAGING

Eltete
RePack Design



1. CONSUMER PACKAGING

BUSINESS
FINLAND

Ecopulp Finland

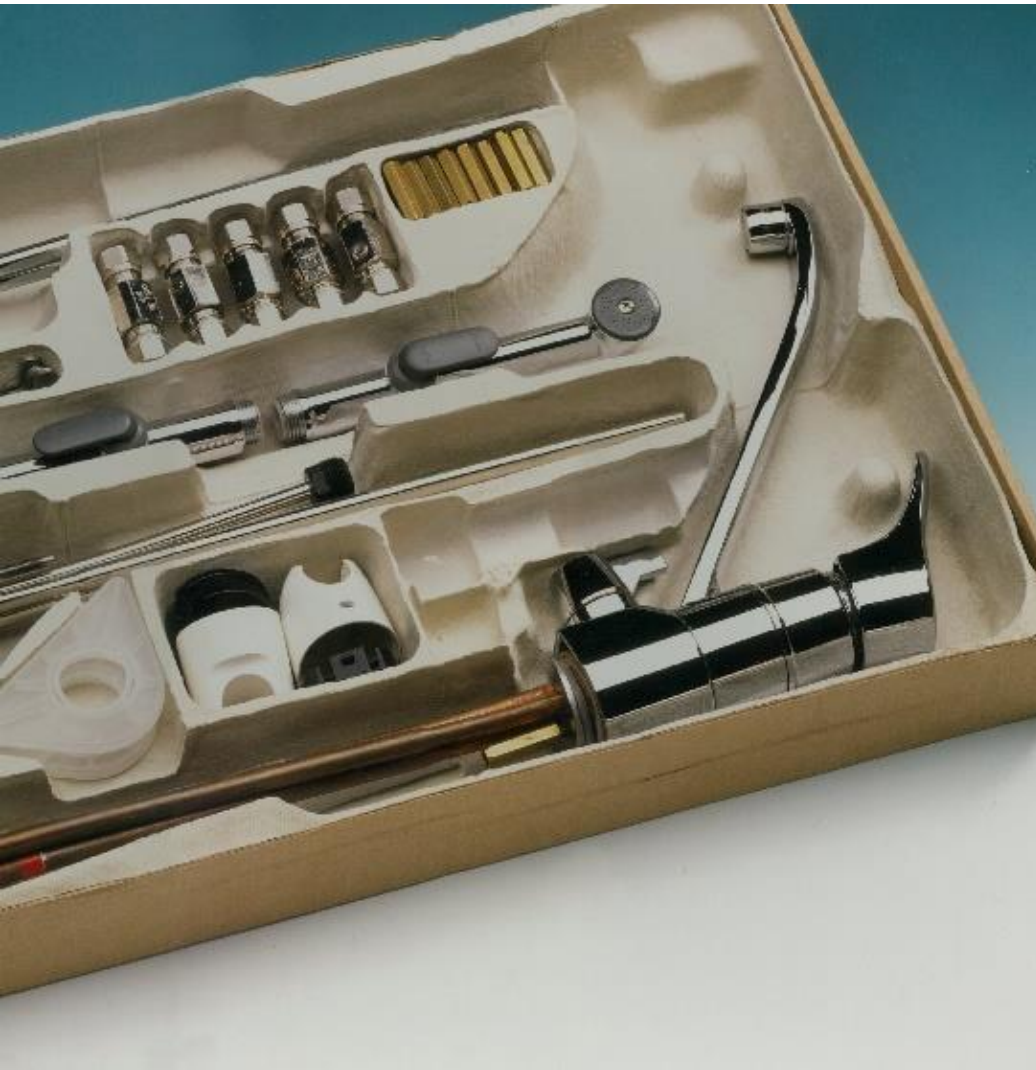
Esbottle / Fizzy

NWB Finland

Starcke

Stora Enso

Sulapac



SUSTAINABLE 3D PACKAGING FROM RECYCLED PAPER

OUR SOLUTION

Ecopulp Finland Oy develops, designs and produces three-dimensional shaped protective packages from recycled paper. Wood or recycled fiber applications are always the most environmentally friendly, because the material is biodegradable and 100% recyclable. Ecopulp Finland Oy is the only company in the Nordics with a full-service package from idea to solution.

Material: recycled paper and wood-based fiber. Recyclable and biodegradable.

BENEFITS FOR THE CUSTOMER

- Decreases carbon footprint of supply chain.
- Recyclable and biodegradable solution increases the sustainability of the company.
- 100% renewable raw material in packaging is safe, strong and cost-effective.

COMPETITIVE ADVANTAGE

The total carbon footprint of recycled fiber packages is lower than in any other material in similar use.

The most common raw material in protective packaging is styrofoam, which is 100% possible to replace. Other benefits are its breathability, storage effectivity, compostability, and customizability.

COMPANY

Ecopulp Finland is a 100% Finnish-owned company that adheres to ISO 9001 and 14001 standards in its production practices. Its financial situation is stable and remarkable investments are made annually to improve product quality & minimize environmental effect.

REFERENCES

The company is sustained by orders from 40 customers and 15 "big" groups in Finland and Northern Europe (ABB, Alko, Oras, et al.) .

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Solutions for sustainable packaging:

1. Consumer packaging



PAPERBOARD BOTTLE FOR VARIOUS LIQUIDS

OUR SOLUTION

We bring to market a new type of pressure-resistant paperboard bottle. The bottles can be filled with different liquids from beverages to cosmetics and even semi-liquids like honey and cream. Our offering is a fully automatic machine that makes bottles starting with paperboard reel, forms bottles, fills, place closure and finally gives a branded finish with a digital printer. Bottle construction also makes it possible to fill carbonated products like CSD, beer and cider. We test paperboard from all major producers globally. Tests with paperboard bottles without any plastic content are ongoing.

Material: Packaging board. Recyclable and biodegradable.

BENEFITS FOR THE CUSTOMER

- Recyclable and biodegradable.
- Bottle shape can be tailor-made.
- Pressure resistant.

COMPETITIVE ADVANTAGE

Our fully automatic production line FBB will be installed by the hands of the customer, leaving no need to transport empty bottles from a "bottle factory". A suitable barrier/coating can be selected depending on application and shelf-life requirements. Plastic-free bottles will soon be available.

COMPANY

Out of a desire to save nature and improve the world, Esbottle was founded and the first paperboard bottle was made in 2018. Patents have been filed for the bottle.

REFERENCES

Selective customers are testing our bottles for both shelf-life and stability, which will soon also be tested by consumers.

CONTACT

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NWB FINLAND SUSTAINABLE PACKAGING

OUR SOLUTION

NWB Finland Oy sells patented, ecological liquid packaging, Finnish spring water, packaging production lines, and expert services to its customers. Our new packaging concept, called NWB Bevel packaging, is recyclable, user friendly and logistically efficient. NWB packaging has a unique design and shape, and it builds on the Bag-In-Box principle. Due to its unique modular design with matching 2-pack units, it is stackable and fills the Euro-pallet perfectly, thus cutting down logistical costs. It is easy to use straight from the fridge.

Material: Cardboard, 70% recyclable material. Recyclable.

BENEFIT FOR THE CUSTOMER

- Carbon footprint 70g CO₂ e/l.
- Cardboard 70% recyclable material.
- Easy to recycle.

COMPETITIVE ADVANTAGE

Convenient 3-liter (1.5 & 5 liter) 70% recyclable material and 11% less plastic. Modern and stackable design. Easy to use and recycle. Carbon footprint only 70g CO₂ e/l. Logistically efficient. No cardboard packaging boxes.

COMPANY

We sell patented, sustainable packaging, machines and spring water. Our aim is to grow into a global player in the beverage industry and help reduce the international environmental burden.

REFERENCES

We own 40% of production line company Koneikko Ltd.

CONTACT

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Solutions for sustainable packaging:

1. Consumer packaging



STAND OUT AND IMPRESS WITH YOUR PACKAGING

OUR SOLUTION

The packaging is your product's way of making a first impression. It is the most familiar and recognizable part of your product. Starcke uses insightful packaging designs, high-quality finishings and impressive hologram solutions that beat the competition in turning customers' heads.

Material: Recycled and recyclable carton. Recyclable and biodegradable.

BENEFITS FOR THE CUSTOMER

- We make use of innovative packaging design, high-quality post-processing methods and striking hologram solutions to ensure your packaging turns customers' heads your way.
- Protecting your brand is an investment in its future.
We manufacture packaging of all sizes, for brands of all sizes.

COMPETITIVE ADVANTAGE

We design and create product packaging together with you to take your brand to a whole new level. Starcke combines special seals, holograms, and other packaging elements into a digital protection under our proprietary StarckeGate® system.

COMPANY

Starcke Oy is a Finnish company that was founded in 1983. We specialize in protecting brands and manufacturing unique product packaging that stand out.

REFERENCES

Nokia, Secto Design, The Helsinki Distilling Company, Arctic Blue Beverages, Valamon Viiniherman Oy, Kouvolaan Lakritsi Oy, Kultakeskus and Eat Machine.

CONTACT

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HIGH PERFORMANCE PACKAGING WITH MINIMUM PLASTIC

OUR SOLUTION

UltraThinPE Tec™ is a new innovation from Stora Enso that significantly reduces the share of plastic coating in foodservice board (FSB) and applications such as single-use paper cups. With the help of UltraThinPE Tec™, Stora Enso has developed the thinnest polymer coating for FSB products on the market. The technology is presently used in the production of UltraThinPE coatings for Stora Enso's Cupforma product line of paper cups.

Material: paperboard, recyclable

BENEFITS FOR THE CUSTOMER

- UltraThinPE Tec™ reduces plastic coating weight by up to 40%.
- Plastic share of less than 5% helps brand owners meet the composite threshold for packaging in some European countries.
- UltraThinPE Tec™ coatings can significantly reduce extended producer responsibility (EPR) fees.

COMPETITIVE ADVANTAGE

UltraThinPE Tec™ greatly improves the sustainability of paper cups by yielding the lowest plastic coating weight available on the market and reducing the overall carbon footprint of the finished product.

COMPANY

Stora Enso is a leading provider of renewable products in packaging, biomaterials, wooden construction and paper, and one of the largest private forest owners in the world.

CONTACT

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SULAPAC – LIKE NATURE

OUR SOLUTION

The Sulapac® material is an award-winning and patented bio-based innovation that can replace conventional plastics. It is ideal for various applications from straw and cutlery to premium packaging. Global pioneers, including CHANEL, have already switched to Sulapac. Its unique, natural appearance and haptic feel make it stand out. Sulapac is made of wood chips from industrial side-streams and responsibly sourced plant-based binders. It biodegrades without leaving permanent microplastics behind and is industrially compostable. The shift from conventional plastics to Sulapac is easy: this drop-in solution material can be mass-produced with existing plastics machinery. **Material:** patented bio-based material, biodegradable.

BENEFITS FOR THE CUSTOMER

- Sulapac® material meets demanding technical requirements and makes products stand out.
- It is beautiful, functional and sustainable, like nature.
- Sulapac® is safe for people and our planet.

COMPETITIVE ADVANTAGE

✓ Beautiful look & feel that makes products stand out ✓ Superior usability ✓ Safe for people and our planet ✓ Bio-based ✓ Industrially compostable ✓ No permanent microplastics ✓ Low carbon footprint ✓ Processable with existing plastics machinery ✓ Created by Doctors of Biochemistry ✓ Scientifically backed

COMPANY

Sulapac Ltd. accelerates a plastic waste-free future with sustainable materials that are beautiful and functional, like nature. Join the forerunners at sulapac.com. Together we can save the world from plastic waste.

REFERENCES

CHANEL, Shiseido, Marimekko, Schan Cosmetics, Al Bayader

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2. FOOD PACKAGING

BUSINESS
FINLAND

Dolea

Huhtamaki

Jospak

Pyroll Packaging

Wipak





DRINKING STRAW-ENABLING CIRCULAR ECONOMY

OUR SOLUTION

Dolea produces fully recyclable drinking straws out of cardboard. Dolea straws are biodegradable and safe for children to use, as they contain zero glue.

Material: Fully recyclable cardboard straw. Recyclable and biodegradable.

BENEFIT FOR THE CUSTOMER

- User-friendly – Dolea straws are suitable for all kinds of drinks, even hot beverages, as they remain sturdy for the whole duration of use.
- Safe for children – Dolea straws contain zero glue or other chemicals and will not dilute in drinks or turn into pulp in children's mouths.
- Sustainable – Dolea straws are recyclable as paper in existing systems, leaving no remains on land or ocean. If not recycled, Dolea straws take about the same amount of time as a maple leaf to decompose.

COMPETITIVE ADVANTAGE

Zero Glue – Traditional paper straws are essentially made out of glue and paper, are next to impossible to recycle and bring about an unsatisfying user experience. Dolea straws contain no glue, which maintains their recyclability (at the level of paper) and delivers an excellent user experience.

COMPANY

Dolea Ltd. produces drinking straws that are recyclable, safe and user-friendly. Dolea manufactures straw machines for converters all over the world.

REFERENCES

KESKO, KESPRO, Valio Aimo, Hartwall, HESBURGER, MAX Hamburgers, PAC, Martin&Servera, and Moomin Characters.

CONTACT

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HUHTAMAKI FIBER SOLUTIONS

OUR SOLUTION

Huhtamaki's Fiber Foodservice business specializes in sustainable and innovative molded fiber packaging solutions. Besides the proprietary high-precision technology for smooth molded fiber, other key offers include responsible sourcing, design capabilities, rough molded fiber technology, production optimization, and reliable supply chain management.

Material: Wood fiber. Recyclable.

BENEFIT FOR THE CUSTOMER

- Huhtamaki understands customer and market needs. Our alternative sustainable solutions work for a wide range of applications.
- Huhtamaki's fiber packaging is made primarily from certified wood fiber.
- Huhtamaki's fiber packaging is a recyclable or compostable alternative to fossil-based packaging while offering superior functionality, quality, and food safety.

COMPETITIVE ADVANTAGE

Huhtamaki innovates with customers for existing and new markets. Through 114 operating locations worldwide, we can help you identify, enable, and monetize sustainable packaging innovations at scale.

COMPANY

Huhtamaki is a key global provider of sustainable packaging solutions for consumers around the world. With 100 years of history and a strong Nordic heritage, Huhtamaki operates in 37 countries.

REFERENCES

Huhtamaki's fiber Sundae cup and lid for McDonald's has won multiple packaging awards, e.g., the Diamond Finalist award at the Packaging Innovation Awards.

CONTACT

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www.huhtamaki.com



CARDBOARD TRAY FOR THE SUSTAINABLE FOOD INDUSTRY

OUR SOLUTION

We are offering a carton-based packaging solution to food producers that require a gastight package for MAP applications. The package is also well water-, oil- and moisture-protected. Traditionally, only plastic-based trays have been used for these applications. Our solution offers a packaging solution that contains 85% less plastic and has a remarkably lower carbon footprint value for a package. After usage, you can tear the inner film away from the carton part of the tray. With the help of this removal, the carton part (85% of the package) is clean to be recycled as all the food stains remains on the inner film.

Material: Carton – plasticfilm, hybrid material (85% carton + 15% plastic). Recyclable.

BENEFITS FOR THE CUSTOMER

- Carton trays can be printed, which allows the possibility to include a design on every package.
- The natural feeling and exterior aesthetic of a carton package can be used when planning marketing.
- Using a carton tray is a powerful tool for a brand owner to use to display their image as a sustainable company.

COMPETITIVE ADVANTAGE

Our largest competitor is a traditional plastic tray. We strongly believe that by packing food into a Carton Tray will increase the value for the whole food product itself. This is since consumers give more value to a food product if it is being packed in a sustainable and good-looking package.

COMPANY

Jospak's ambition and mission is to contribute to the recovery of the climate. We are creating solutions for the food industry to reduce its use of plastic and decrease its carbon footprint.

REFERENCES

We presently have active customers in the Nordic countries and German-speaking countries. Additionally, South Korea is a quickly growing market area for us.

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NORDIC SUSTAINABLE PACKAGING

OUR SOLUTION

Pyroll Packaging provides comprehensive customer solutions for packaging and packaging materials, from designing and co-creating to manufacturing and supplying ready-to-use packaging solutions. Their packaging solution selection is one of the largest ones in the Nordics. The company's Pyrollgreen product family responds to the change in the industry and offers awarded sustainable and recyclable packaging alternatives made from bio-based fibers for the food industry and non-food applications.

Material: Paper, folding carton, flexibles and aluminum. Recyclable.

BENEFIT FOR THE CUSTOMER

- One stop trusted partner for sustainable packaging solutions.
- Strong locality and the sales and service network close to customers.
- Security of supply, supply chain flexibility and product safety as the cornerstones of operations.

COMPETITIVE ADVANTAGE

As a multimaterial packaging solution provider, Pyroll Packaging manufactures and services innovative, sustainable and cost-efficient added value solutions to customers. A unique portfolio of ready-to-use packaging solutions and services from traditional packaging to digital platforms.

COMPANY

Pyroll Packaging operates at nine plants in Finland, employs appr. 300 people and has turnover of about 62 million euros. An expert in fiber and flexible packaging materials with decades of experience.

REFERENCES

The bakery industry, the dairy industry, meats, poultry, and fish, chocolate and confectionery, food on-the-go, other retail and industrial applications.

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GreenChoice BY WIPAK

OUR SOLUTION

GreenChoice brings Wipak's carbon zero strategy to life on the product side of our business. By uniting all sustainable food packaging solutions under one brand, the choice between them is now easier. With GreenChoice, we're shouldering our share of the responsibility for environmental protection and providing the highest quality sustainable plastic film solutions to our customers for generations to come. The three core product categories of GreenChoice are: Recyclable, Renewable and Recycled.

BENEFITS FOR THE CUSTOMER

The use of renewable raw materials like paper and new plastics made from renewable feedstock can help us achieve independence from fossil resources. In doing so, we can also avoid the release of additional carbon into the atmosphere. As we integrate renewable materials into our solutions, we ensure that all materials are sourced responsibly. We use FSC®-certified paper and ISCC Plus-certified renewable feedstock, and several of our sites are already FSC®, COC- and ISCC Plus-certified.

We design our packaging in alignment with recognized 'Design for Recycling' guidelines, such as CEFLEX D4ACE Guidelines. This enables packaging to be recycled while improving the sortability of different types of packaging solutions. By exchanging virgin raw materials for recycled alternatives, we are decreasing our carbon emissions and consumption of fossil fuels to produce plastics.

COMPETITIVE ADVANTAGE

Reduction of material usage is our highest priority. Less packaging content is brought into circulation and also enables us to foster savings in areas such as transport costs. Striving for the continuous reduction of CO₂ emissions is part of our daily activities – in product development and operations.

COMPANY

Wipak manufactures and distributes high-quality packaging materials. The company's products are used primarily for the protection of perishable foods and in healthcare applications.

REFERENCES

There are many GreenChoice solutions already in the market for different applications including recyclable packaging for meat, cheese and non-food applications. The highly commendable paper-based recyclable butter wrapper, which won the 'Innovation in Sustainable Packaging' award at the IDF Dairy Innovation Awards and was shortlisted for the 'Best New Concept' at the UK Packaging Awards, is one of many great examples.

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3. PACKAGING AS A SERVICE

Kamupak

BUSINESS
FINLAND





DIGITAL DEPOSIT SYSTEM FOR REUSABLE PRODUCTS

OUR SOLUTION

Kamupak provides a digital deposit system with reusable KamuDishes and environmental impact data for take-out food businesses. KamuDishes are easy to use and food safe. During its life cycle, a single KamuBox can result in avoiding 6 to 8 kg of packaging waste, which is equivalent to approximately 6 to 8 large garbage bags. A KamuBox's carbon footprint is 2.5g CO₂ ekv/use, which works out to 72–95% less carbon footprint than single-use packaging. The Kamupak solution is already offered by many restaurants, cafes, events, venues and cloud kitchens and the network is rapidly growing. KamuDishes can also be added to the menus of food delivery companies (e.g., Wolt).

BENEFITS FOR THE CUSTOMER

- Reduction of single-use packaging waste and its related costs.
- The opportunity to be recognized as a sustainable company and gain more environment-aware customers.
- Packaging as a service is a risk-free and effortless way to offer take-out food in reusable dishware.

COMPETITIVE ADVANTAGE

Unique turnkey solution, including reusable take-out dishes / digital deposit system ensuring packages will be returned and reused. / Personnel onboarding and instructions. / POS marketing materials. / User support / environmental impact data.

COMPANY

Kamupak is a circular economy company that provides a digital deposit system with products that can be reused. Our mission is to minimize single-use packaging waste globally.

REFERENCES

Some of our customers/partners/chains: Kotipizza, Picnic, Wolt, Sodexo, Restolution,

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4. PHARMA AND HEALTHCARE

BUSINESS
FINLAND

Jaakkoo-Taara





SECONDARY PACKAGING MATERIALS TO PHARMA

OUR SOLUTION

We are a quality-focused secondary packaging materials manufacturer for the pharma and healthcare industries. We produce cartons, leaflets and labels with new and high-quality machines.

Material:

Leaflets: 40g–60g paper. Labels: paper or plastic according to customers' requirements. **Cartons:** cardboard. All recyclable and biodegradable.

BENEFITS FOR THE CUSTOMER

- Flexible.
- Accurate deliveries.
- Easy ordering via system integrations.

COMPETITIVE ADVANTAGE

We are a trustworthy provider with a high standard of quality and accurate delivery times.

COMPANY

In 1935, Jaakkoo-Taara founded a quality-focused packaging provider with 120 highly motivated personnel. ISO 9001- and 14001-certified with GMP regulations adapted to the quality system.

REFERENCES

Pharma and healthcare companies in Finland, the rest of the Nordics and the Baltics.

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5. TRANSPORT PACKAGING

BUSINESS
FINLAND

Eltete

RePack Design





SUSTAINABLE CARTON-BASED TRANSPORT PACKAGING

OUR SOLUTION

Eltete TPM offers 100% recyclable environmentally friendly carton-based transport packaging solutions such as edge-boards, wrap-arounds, frame-packs, carton pallets and boxes that can replace wooden, plastic and EPS solutions, resulting in vastly reduced CO₂ emissions and saving both time and money for the customer.

Material: Cardboard. Recyclable and biodegradable.

BENEFITS FOR THE CUSTOMER

- Savings of time, money, resources, warehousing, and weight.
- High quality, fewer complaints.
- Sustainability 100% recyclable solutions produced with less CO₂ than other material.

COMPETITIVE ADVANTAGE

Our worldwide network with production plants and sales offices guarantees smooth on-time delivery of high-quality packaging materials based on over 50 years of know-how.

We are specialized in heavy-duty solutions, the strength of which is comparable to wooden solutions.

Easy recycling with carton waste.

COMPANY

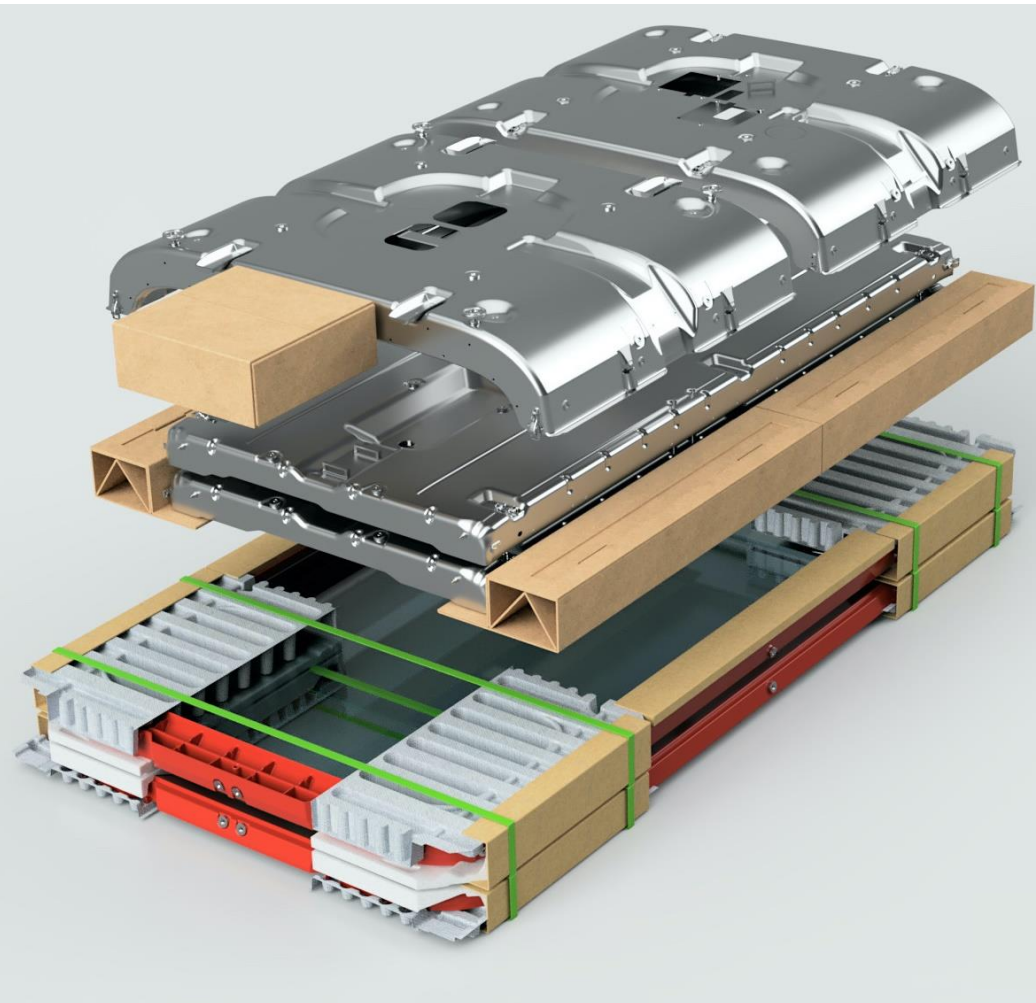
Eltete TPM Ltd. is a global carton board refiner and a supplier of 100 % recyclable transport packaging materials. With over 50 years of know-how and deliveries, we have earned the trust of our customers.

REFERENCES

BMW, Volkswagen, Volvo, Nestle, SSAB, DS smith, Nefab, Siemens, Nokia, Panasonic, DHL, P&G, et al.

CONTACT

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WE JUST DESIGN GREAT PACKAGES

OUR SOLUTION

Transport packages and packaging work can be the most sub-optimal link in the industrial quality chain in many companies. We know that transport packaging needs to be designed not just for transportation, but for users as well. With our user-oriented approach, you can benefit from cost savings, operational efficiencies and environmental sustainability. We design professional packaging solutions that save time, money, and space.

BENEFITS FOR THE CUSTOMER

- Efficiency and cost savings.
- Reusable or plastic-free packages.
- Less damage during transport.

COMPETITIVE ADVANTAGE

RePack Design has a proven track record of designing reusable packaging solutions that consider the whole value chain.

With our user-oriented approach, we can design custom solutions that meet specific customer requirements on an efficient logistics and value chain.

COMPANY

RePack Design founders Juha Mäkelä and Petri Piirainen are innovative and experienced product and package developers. We believe that good design is essential for developing a more sustainable business.

REFERENCES

The world's first trash-free packaging system for e-commerce, Repack.com; plastic-free packaging for Framery.com; Bed in a bag solution for Kiezbett.com.

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NEW, EMERGING PRODUCTS AND SOLUTIONS

BUSINESS
FINLAND

Artekno – Renewable paper-based tray

Ecopulp Finland – 3D packaging – excellent strength, size and height

Jospak – Cardboard tray for frozen food applications

Metsä Spring – MUOTO® – Shaped for purpose

Woodly – Pioneer in wood-based plastics



New products:
New, emerging products and solutions



ARTEKNO'S RENEWABLE PAPER-BASED TRAY

OUR SOLUTION

Sustainable press-formed paperboard tray with PET coating on top. The structure of the tray is optimized with just the right amount of renewable fiber and PET barrier. The durability of the tray is achieved from fiber and there is just enough of the plastic that is needed to reach food safety, sealing properties and heating conditions. This tray can reduce plastic usage up to 80% and it can reduce carbon footprint. These properties communicate sustainability image from brand to consumers. The tray is suitable for freezing and it is safe for use in conventional and microwave ovens. According to our experience, the tray is possible to use with common sealing machines. The tray can be used in certain boundary conditions for gastight or modified atmosphere packaging.

COMPETITIVE ADVANTAGE

Up to 80% less plastic than traditional plastic trays. Customized, printable product presentation. Self-contained, flexible, cost-effective food-safe production. Tray can be recycled with paper items as-is.

COMPANY

Artekno is a Finnish expert in plastic products, temperature-sensitive logistics products and food packaging. Two production plants in the cities of Kangasala and Luopioinen are staffed by the company's 130 employees. Artekno is committed to developing circular economy operations in terms of both materials and manufacturing technologies.

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New products:
New, emerging products and solutions



3D PACKAGING – EXCELLENT STRENGTH, SIZE AND HEIGHT

OUR SOLUTION

Our solution allows to pack complex and relatively heavy products to tailored 3D shape Ecopulp moulded pulps.

COMPETITIVE ADVANTAGE

Recyclable and sustainable, user friendly and space saving package, suitable for robot-handling.

COMPANY

Ecopulp Finland is a 100% Finnish, privately owned company. The company was established in 2009. ISO 9001 quality and 14001 environmental certificates guide our actions. Our primary market area includes Finland, the Nordics and the Baltics.

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New products:
New, emerging products and solutions



CARDBOARD TRAY FOR FROZEN FOOD APPLICATIONS

OUR SOLUTION

We produce a tray solution which is available for frozen food applications.

COMPETITIVE ADVANTAGE

Our largest competitor is the traditional plastic tray. Our advantages compared to plastic trays are sustainability, printability as well as the natural exterior aesthetic and feel of a carton tray. With these attributes, we believe that consumers value products more highly if food is packed in a carton tray rather than a plastic tray.

COMPANY

Jospak's ambition and mission is to contribute to the recovery of the climate. We are creating solutions for the food industry to decrease the use of plastic and reduce carbon footprint.

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New products:
New, emerging products and solutions



MUOTO® – SHAPED FOR PURPOSE

OUR SOLUTION

Muoto® is a three-dimensional fiber product made of wood which originates from sustainably managed northern forests. Product shapes and sizes can be designed to meet market standards or to create new packaging concepts based on our clients' specific needs. An integrated production and multi-layer solution ensures a strong yet lightweight product structure with smooth surfaces. The product properties can be tailor-made depending on the end use applications. Muoto® products are stackable, which ensures efficient logistics in the supply chain. The resource efficiency of production technology has been honoured at the highest level and no waste is generated from production. The target market is in large-volume applications where customers seek alternatives to plastics. The pilot phase aims to demonstrate the competitiveness of Muoto® in the packaging market.

COMPETITIVE ADVANTAGE

Muoto® is a safe and sustainable solution to replace rigid plastics in food and in take-away packaging.

The innovation combines structure, functionality, design and recyclability. The products are designed fit-for-purpose and delivered ready for use directly from production.

COMPANY

Metsä Spring invests expertise and financial resources into initiatives with the ambition to reshape the forest-based bioeconomy, aiming to increase the value for the Metsä Group's stakeholders in the long term.

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New products:
New, emerging products and solutions



PIONEER IN WOOD-BASED PLASTICS

OUR SOLUTION

Woodly has redesigned plastics and created a path for the plastics industry towards a sustainable future with our unique material. Our commercial product is a new type of wood cellulose-based, carbon-neutral, recyclable and transparent plastic material – Woodly®.

Our company is redesigning plastics by bringing to the market a range of products with a reduced dependency on fossil feedstock, smaller carbon footprint and easier recyclability, thus reducing the burden on nature.

Woodly products are available in granule form suitable for use as raw materials in the plastics industry. Products packaged in Woodly® material can vary from foods such as herbs, grilled sausages and sandwiches to flowers and clothing.

Alongside various product packaging, Woodly® is also suitable for many other applications. These can vary from storage containers, plastic cups, and beverage cups to other symmetrical objects/items, cosmetic cases, and high-design specification packaging.

COMPETITIVE ADVANTAGE

Woodly is easy to process on conventional plastics production lines. No new infrastructure is needed. Our carbon-neutral and wood-based material is food contact-approved, recyclable and made from renewable materials. Woodly is set to become the most valuable material brand in the world by 2035.

COMPANY

Woodly Ltd. is a pioneer in wood-based plastics. We offer our customers solutions to their global climate-related problems. We support a circular economy approach, recycling and reusability. We strive for a climate-positive change and to lessen dependence on conventional fossil-based plastics.

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