SUSTAINABLE LABELS:
The Shape of the Future is Circular
UPM Raflatac – 40 years of labeling expertise

1974 – The first label material deliveries leave the Raflatac factory in Finland.

1982 – One of our most important adhesives, RP-51, is launched.

1996 – We become part of UPM-Kymmene – one of the world’s leading forest industry companies.

2015 – We invest heavily in additional films coating capacity in Europe to meet the future demand.

1976 – Our 2m wide high-speed coating machine is a significant breakthrough in the labeling industry.

1990’s – We are the first in the industry to cut down delivery times from weeks to just 48 hours.

2007–2009 – We open new factories in China, Poland and the USA.

2017 – We are a global pioneer in our field with strong prospects for the future.
Self-adhesive label stock

- Adhesive
- Face material
- Self-adhesive label
- Matrix
- Release coating
- Release liner
Wide product portfolio for various end-uses
Label stock value chain

**RAW MATERIALS**
- Papers & films
- Adhesives
- Silicones
- Typically large companies
- UPM Label papers

**LABEL MATERIAL MANUFACTURING & DISTRIBUTION**
- Lamination
- Roughly dozen suppliers per continent

**LABEL PRINTING & CONVERSION**
- Companies specialized in label converting
- ~ 2500 in Europe, mainly SME’s

**PRODUCT LABELING**
- All companies with labeling needs
- Mainly packaged goods companies

**CONSUMPTION**
- Private & industrial usage of labeled products
Our sustainability partnerships and recognition

Membership in leading environmental organizations including the Ellen MacArthur CE 100 has become a critical component of meaningful circular economy development and thought leadership.
Our responsibility agenda is guided by the Biofore strategy and in contributing to UN’s Sustainability Development Goals (SDGs)

Goals where we play a key role and can contribute most positively
The Circular Economy Journey: The Shape of the Future is Circular
Leading brands are making bold commitments

100% reusable, recyclable or compostable plastic packaging by 2025

follow their lead

- P&G

Our Family Care business is our first category to have 100% recyclable packaging**. This includes consumer messaging on pack to educate consumers on how to recycle the packaging.*

IKEA to use only renewable and recycled materials by 2030
Governments, NGOs and associations are also raising the bar

EU target for recycling **75%** of packaging waste by 2030

AIM signs joint statement on the European Commission’s Single Use Plastics Proposal

Together with 67 Packaging Value Chain associations, AIM signed a joint statement on the Single Use Plastics Proposal launched by the European Commission in May 2018. The undersigned organisations represent a wide range of packaging materials, including plastics, and sectors at different stages of the packaging value chain in Europe.
Circular economy is good business

Communication Papers
30% recycled fibre

RafCycle

50% closed-loop recycling

50% virgin renewable fibre

Global paper, board and tissue fibres

59% collected for recycling

41% stored, incinerated, etc.

2030 TARGETS
100% certified

Zero solid waste

Replacing fossil

Materials recycling from municipal waste

Residues and sidestreams

Renewable fuels

Soil stabilizers, forest fertilizers

Source: RISI, Pöyry, UPM
The New Plastics Economy: Rethinking the future of plastics & catalysing action

- 98% virgin fossil feedstock
- 2% closed-loop recycling
- 14% collected for recycling
- 86% leakage, landfilled, incineration
- 2% materials recycling from municipal waste
- Decarbonising feedstock
- Replacing fossil
- Zero solid waste

Source: Ellen MacArthur Foundation, UPM
SUSTAINABLE BY DESIGN

APR recognized products with wash-off RW85C adhesive and PET PCR liner
Special adhesive formulation washes off cleanly, so PET containers can be recycled

1. Ideal for labeling PET containers, these clear, white and metalized polypropylene product combinations can undergo common PET recycling processes without contaminating any of the PET flake by-products.

2. During the washing process, the labels and adhesive easily separate from the PET container and float, allowing high-value, clean PET flakes to be recovered.
Global first innovation: UPM Raflatac Vanish™ PCR

1. Ultra-thin clear film labels with 90% post-consumer recycled content face and liner.

2. These “no-label” look labels will allow you to increase your sustainability without sacrificing performance!

3. Ideal for any brand in the food, beverage or home and personal care segment.

4. Work on a variety of rigid substrates, including aluminum, glass or PET.
RafBio PE Clear and White / RP37 / HD Lite

1. Biobased PE (>80% plant based raw material)
2. Alternative to regular PE85
3. Plant based raw material is:
   - First generation bioplastic from sugar cane
   - Efficient co-production (50% sugar & 50% ethanol for bio PE production, bagasse as a side product, mostly used going to energy)
4. Most efficient feedstock for the production of bioplastics
5. Material is fully recyclable like regular PE
RAFNXT+ product range

Value created through a unique **Forest Positive** story with quantifiable **Carbon Positive** benefits and **Resource Optimization** that delivers higher productivity.
• **Carbon positive**
  Our forests can absorb up to double the amount of carbon dioxide emitted across the production life cycle of the label from initial harvesting to final application onto the package. That means our labels are net positive when it comes to **carbon** emissions. RafNXT+ takes this even further being up to 20% more carbon positive than our standard range.

• **Positive for nature**
  Our unique forest life cycle approach not only ensures net **zero deforestation** but is proven to actively promote **biodiversity**, improve **water** quality and enhance the potential of our forests to absorb **CO₂** over time.

• **Resource efficient**
  By optimizing **raw materials efficiencies**, RafNXT+ also uses less **energy** and **water** and generates less **waste** during its lifetime compared to standard labels.

• **100% certified**
  All of our RafNXT+ range is from **FSC/PEFC** certified forests.
Based on UPM Raflatac’s LCA study and performed in accordance with ISO 14040/44 standards
LINER RECYCLING

Paper and PET label liner recycling solutions
Liner Recycling
2.0 mil PP clear acrylic adhesive 1.2 mil PET
Landfilling vs. recycling the release liner

- **ENERGY** - 24 %
- **WATER** - 20 %
- **CO₂** - 21 %

- Recycling the 1.2 mil PET liner is the best environmental, social and economical solution for being more sustainable
- Average nearly ¼ savings in the consumption of energy and water and reduction of CO₂ equivalent emissions

**Material circularity given liner into recycled content – circular economy**

Based on UPM Raflatac’s LCA study and performed in accordance with ISO 14040/44 standards
Labels Matter!
Packaging School and UPM Raflatac

- Program developed in partnership with The Packaging School and taught by UPM Raflatac’s world-renowned experts.

- By enrolling in and taking this first-of-its-kind course, you will learn first-hand the essentials of the world’s leading label type.

- Essential that brand owner, designer, converter and printer enroll in this course so you can find the inspiration to grow your business.

- Visit UPM Raflatac at **booth S-4147** to demo this innovative new course.
THANK YOU

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