Janne Poranen, CEO & Co-founder, Spinnova
Vinicius Nonino, Executive Director, Suzano
An irreplicable forestry business model

At the cutting edge of the forest industry sustainability agenda

- + 2 million hectares of land
- 960 thousand hectares of which are conservation areas
- Mosaic plantations that support biodiversity conservation
- + 600 thousand eucalyptus seedlings planted every day
- 15 million tons of carbon net positive in 2020
- Commitment to SBTi
1. Continue being a benchmark in the sector in *efficiency*, *profitability* and *sustainability*, from the forest to the client.

2. Be a transformational agent in the *expansion into new markets for our biomass*.

3. Be a reference in *sustainable and innovative solutions* for the bioeconomy and environmental services, based on planted trees.
Avenues

Be “Best-in-Class” in the Total Pulp Cost vision

Maintain relevance in Pulp, through good projects

Advance in the links of the chain, always with competitive advantage

Expand boldly into New Markets

Play a leading role in sustainability
Bold Sustainability Goals for 2030

Be even more climate positive

To remove 40 million tons of carbon (CO₂) from the atmosphere.

Offer products from renewable sources

To offer 10+ million tons of products from renewable sources that can replace plastic and other petroleum-based products.

Mitigate the problem of income distribution

To lift 200,000 people from poverty in our areas of operation.

Preserve biodiversity

To connect half a million hectares of priority areas for biodiversity conservation in the Cerrado, Atlantic Forest and Amazon biomes.
Impactful Initiatives in Biobusiness

Replicating our business model success...

To address new multiple large markets

Exploring focused technologies and partnerships

Biofuels
Biochemicals
Biomaterials

Sustainable Textiles

SPINNOVA®
Business strategy

Joint Ventures

- Wood
- Leather
- Suzano
- SPINNOVA®
- SPINNOVA®

Multiple options

- Agri Waste
- Textile Waste

SPINNOVA®

Fibre technology platform
- Own and develop the technology
- Technology concept provider
- Technology fee

Fibre production and sales
- Joint venture (JV) partner
- Multiple other options

Fabric sales
- Spinnova’s own sales and marketing organization

Apparel & Footwear
- icebreaker
- THE NORTH FACE
- adidas

Interior textiles
- ecco®
- H&M Group
- Bergans of Norway
- marimekko

Healthcare
- BESTSELLER

Composites
Disruptive technology innovation

SPINNOVA® Process

Renewable raw material streams

- Wood
- Leather
- Agri waste
- Textile waste

Natural micro fibre suspension

Spinning (patented technology)

Drying

Production output

Fibre

Fabric

0% harmful chemicals

0% waste

100% recyclable

0%

fibre

Closed process for water use
SPINNOVA® hoodie saves ~40-65% of CO₂ emissions

1) Estimated based on the t-shirt production cost calculation logic from Hasan et al. 2020, assuming that production of a cotton t-shirt costs 2.15 EUR and requires ~200g undyed fabric, a hoodie requires ~600g undyed fabric (excluding zippers etc.). Cost of yarn production and all other costs assumed to remain constant for the same weight of fabric used (~86% of cost of cotton hoodie). FX: USD to EUR, 2019 = 0.893.

2) Future cost reduction potential likely driven by decrease in price of raw material, optimized energy efficiency and price, optimized process, and economies of scale; 3) Calculated based on index value of water usage where cotton = 100 and Spinnova = 0.5. 99.5% smaller footprint is based on calculation where artificial irrigation of cotton is included to the water usage and eucalyptus uses no artificial irrigation. Source: ICAC, Hasan et al. 2020 “Addressing Social Issues in Commodity Markets”, Environmental impact comparison by 3rd party Simreka 2020 (ordered by Spinnova), Shen and Patel “Life Cycle Assessment of man-made cellulose fibres” (2010), Emerging textiles.
WOODSPIN
Woodspin Joint Venture

- A 50/50 joint venture between Spinnova and Suzano
- 1st commercial facility built in Finland
- Encompasses a micro-fibrillated cellulose refining (Suzano) and a fibre production (Spinnova) facility
- Estimated to be completed at the end of 2022
- Spinnova is the exclusive technology provider for the 1st and all future Woodspin facilities
Joint Scaling Ambition

- To ensure the positive environmental impact it was created for, sustainable SPINNOVA® fibre should be produced in big volumes.
- Spinnova and Suzano are committed to a joint industrial capacity scaling of the Woodspin production volumes:

1 million tonnes of SPINNOVA® fibre per year within 10-12 years.
Thank you