# *Kuura-projekti: puupohjaisen tekstiilikuidun kehitys ja mahdollisuudet*

Markus Nuopponen, Development Manager, Metsä Spring

# Metsä Spring

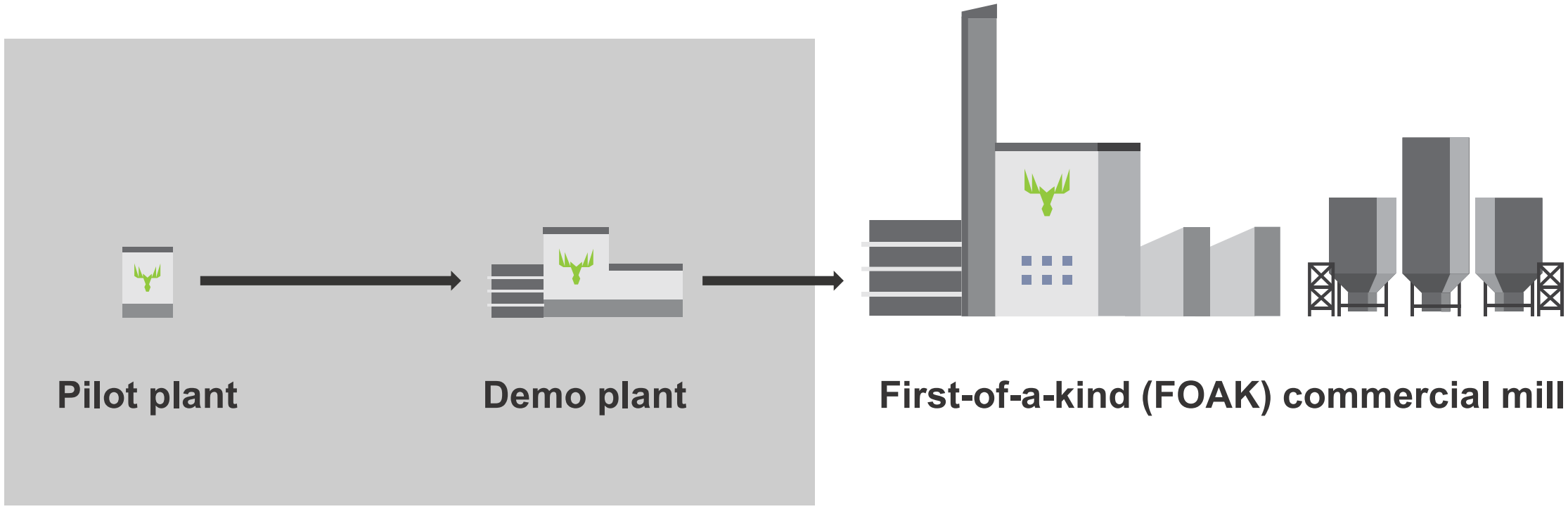
Metsä Group’s innovation arm

# In brief

- Metsä Spring is part of Metsä Group (for more info please visit metsagroup.com).
- It is in practice a wholly owned subsidiary of the Group parent company, Metsäliitto Cooperative.
- Metsä Spring develops new business opportunities for the Group, especially those aimed at new markets.

Metsä

# Scaling up




**Metsä Spring's sandbox**

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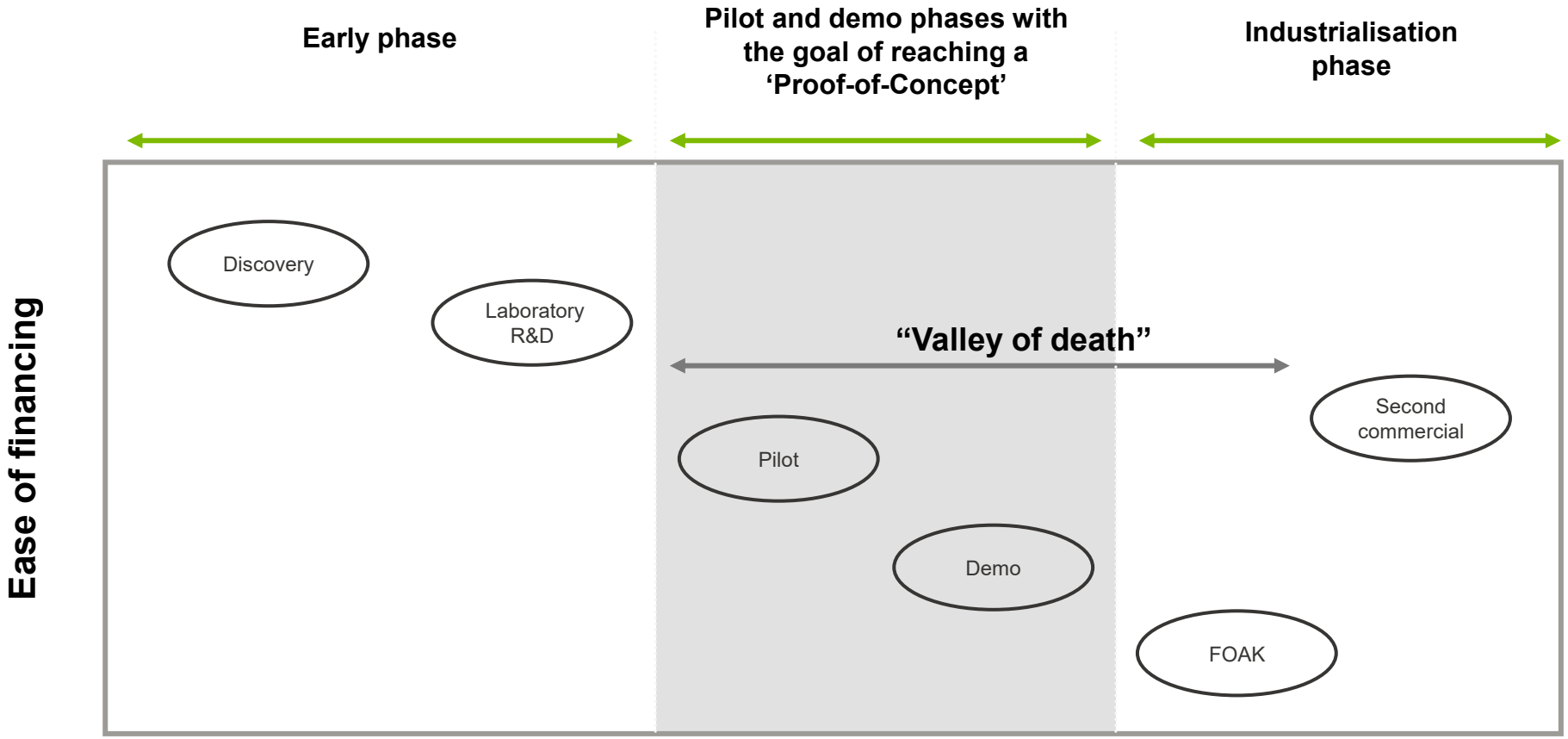
# Focus of Metsä Spring is within the grey area



# Metsä Group’s internal innovation projects

Kuura®

Textile fibre based on Metsä Group’s paper-grade pulp

Demo plant in Äänekoski, Finland

Main partner Itochu Textile Company from Japan

Muoto®

Wood-based packaging product replacing plastics (moulded fibre product)

Demo plant in Äänekoski, in collaboration with Valmet

Bio-$CO_2$

Capture of biogenic carbon dioxide generated in pulp production

Pilot phase successfully completed in 2025 (in Rauma, Finland)

Metsä LigO

Separation of lignin from a bioproduct mill

Upgrading it to fit various applications, including concrete and gypsum

Main partner Dow Chemicals.

Demo plant in operation since Jan 2026 in Äänekoski.

Metsä

# The future of global textile fibre market

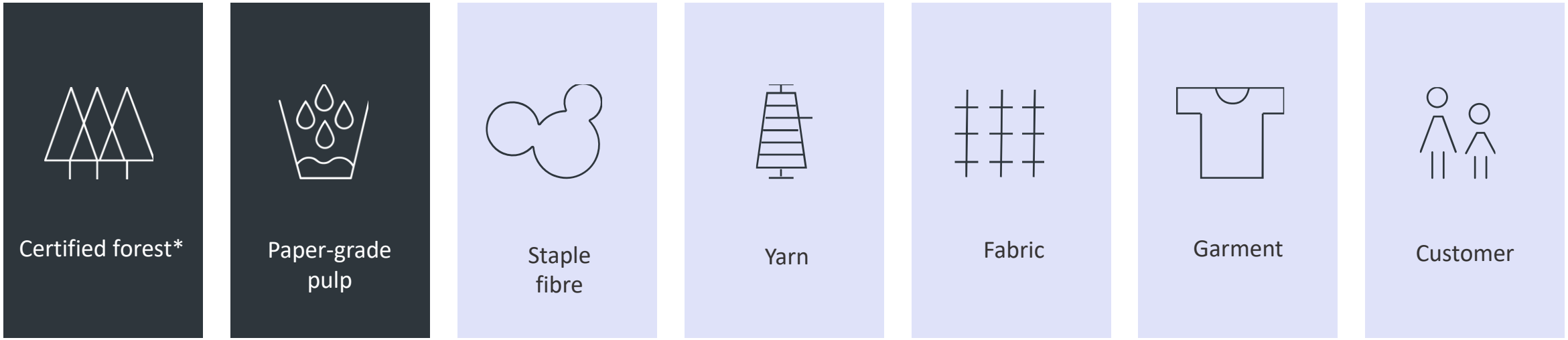
- By 2030, global fibre production is expected to reach 169 million tonnes with a 37 Mt increase to current fibre production
- Demand is rising. So are expectations.
- Brands need fibres that meet quality, volume and compliance.
- But most options today come with trade-offs: performance, aesthetics, scalability or proven environmental benefits.
- The industry needs new fibre solutions that work in real products, not just in theory.

# Kuura project

- Idea: Convert paper-grade pulp into textile fibre.
- The project entered the so-called demo phase in 2018, when a decision was made to build a greenfield demo plant in Äänekoski, Finland.
- The demo plant was ready for production in late 2020.
- Collaboration with potential customers is managed, in big part, by our partner ITOCHU (large Japanese trading house).
- Due to the market changes, the planned investment in a Kuura textile fibre mill in Kemi will not proceed.

Kuura®

# Roles in the Demo phase






* Read more about regenerative forestry at https://www.metsagroup.com/sustainability/forests-and-wood/regenerative-forestry/

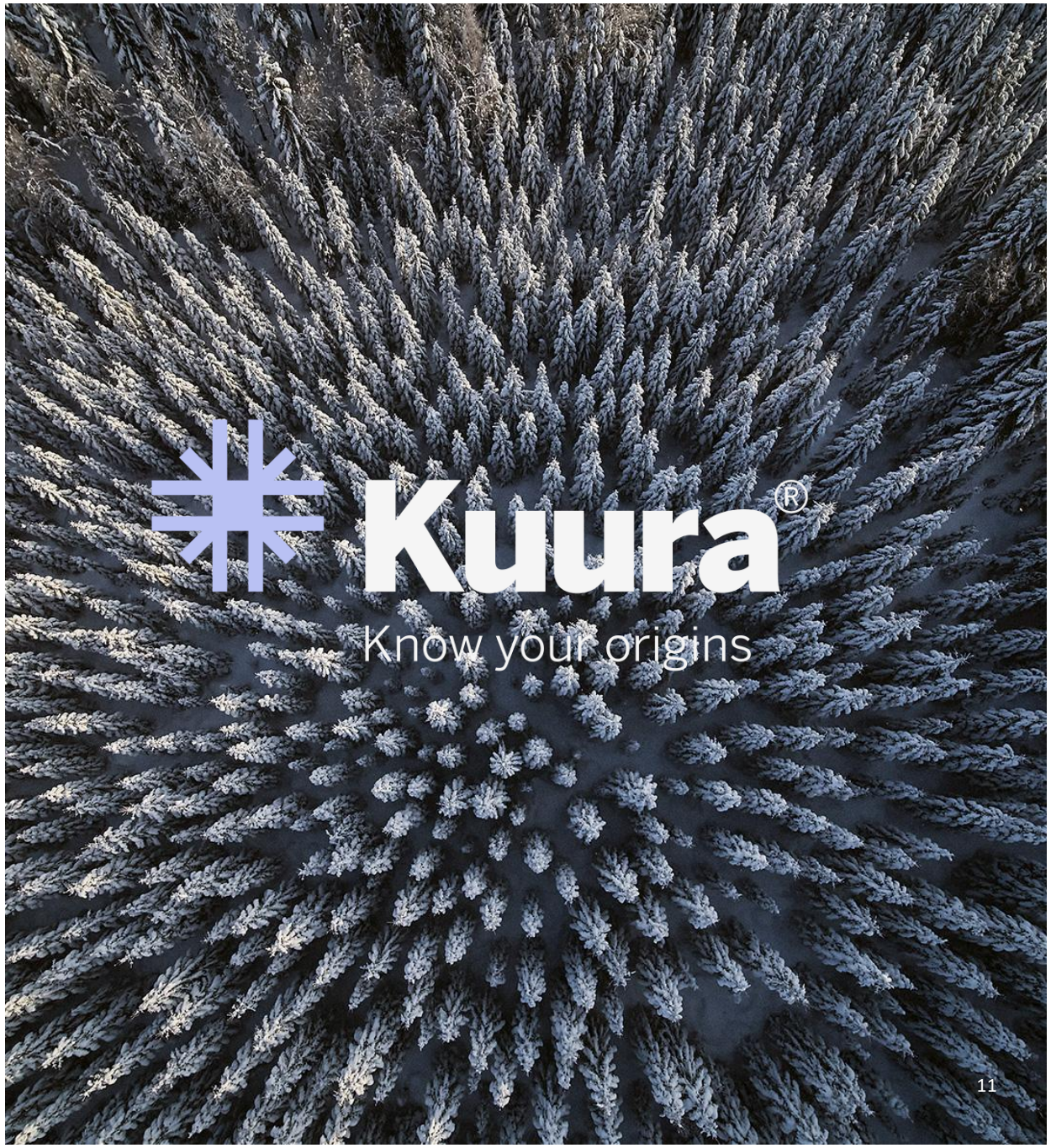

# Production of pulp

- The main raw material, paper-grade pulp, comes from the world’s first next generation bioproduct mill in Äänekoski, Finland. This also belongs to Metsä Group.
- The production at the bioproduct mill is fully free of any fossil-based energy.
- The bioproduct mill and the partner companies enable clever use of all parts of the tree, thus maximising resource efficiency.

# New Wood Fibre

We’ve developed a textile fibre that **feels natural, performs beautifully**, and is ready to be tested in real products.

- Our unique process gives the **Kuura®** fibre a **soft**, dry touch, somewhere between cotton and wool.
- It’s renewable, plastic-free and biodegradable.
- Produced in Finland using fossil-free, renewable energy.
- The wood comes from certified forests.
- And as we continue to innovate, we can explore ways to utilize recycled materials as a future raw material source.




Kuura®

The first clothing collection featuring Kuura® fibre was showcased in Japan in 2021 powered by Itochu Textiles. Since then, THE RERACS has incorporated it into fleece, denim, shirts and dresses. Their latest collection for Autumn/Winter 25/26 continues this collaboration.

Kuura® Saunawear by Krista Virtanen showcased in Osaka World Expo in 2025 as well as in Textile and Fashion Forum in Helsinki. Versatile Kuura® fibre can be used across fashion and home textiles. Terry fabric 30% Kuura and 70% Cotton powered by Itochu Textiles.


Kuura®