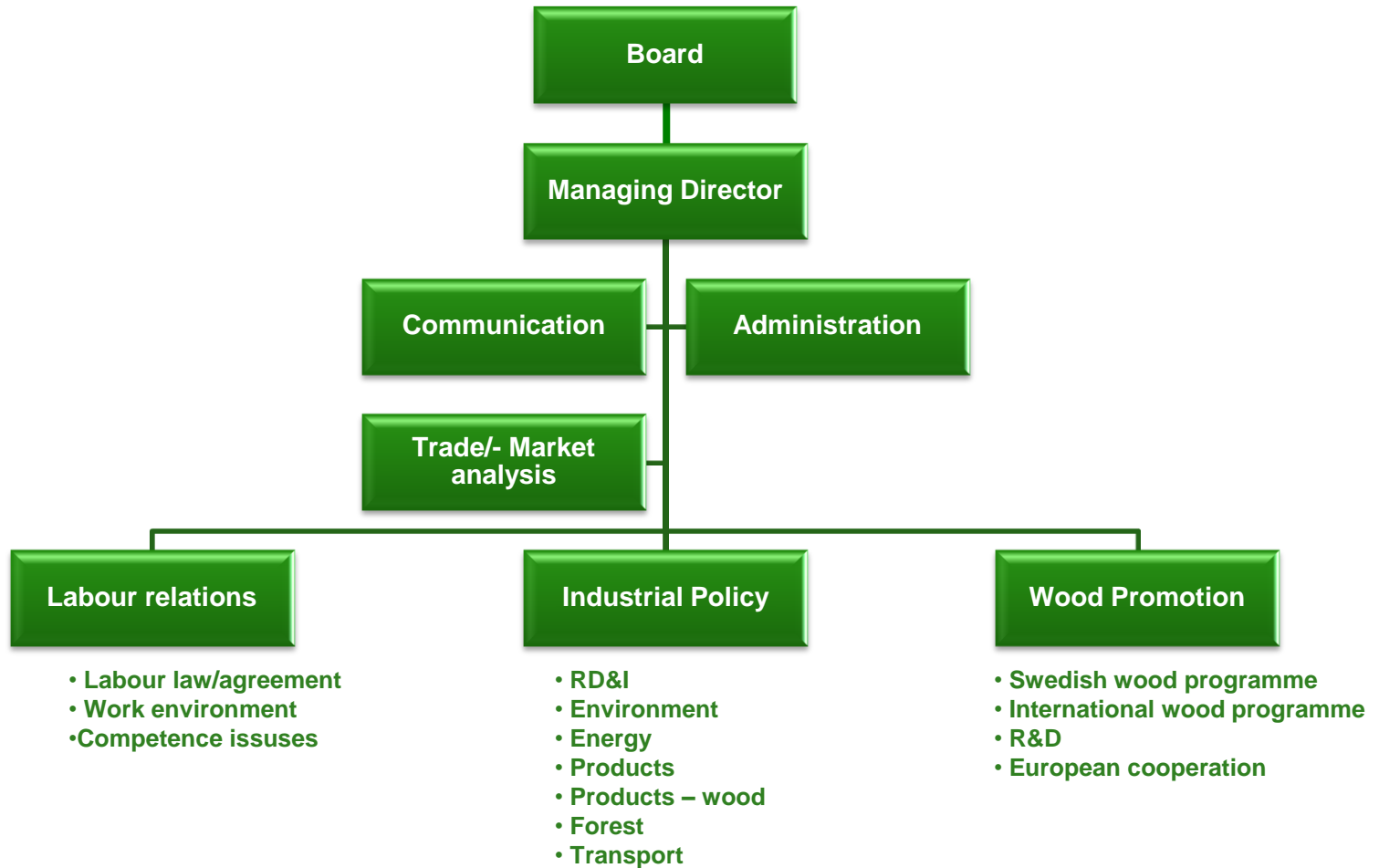




The Swedish Forest Industry Federations view on research and innovation

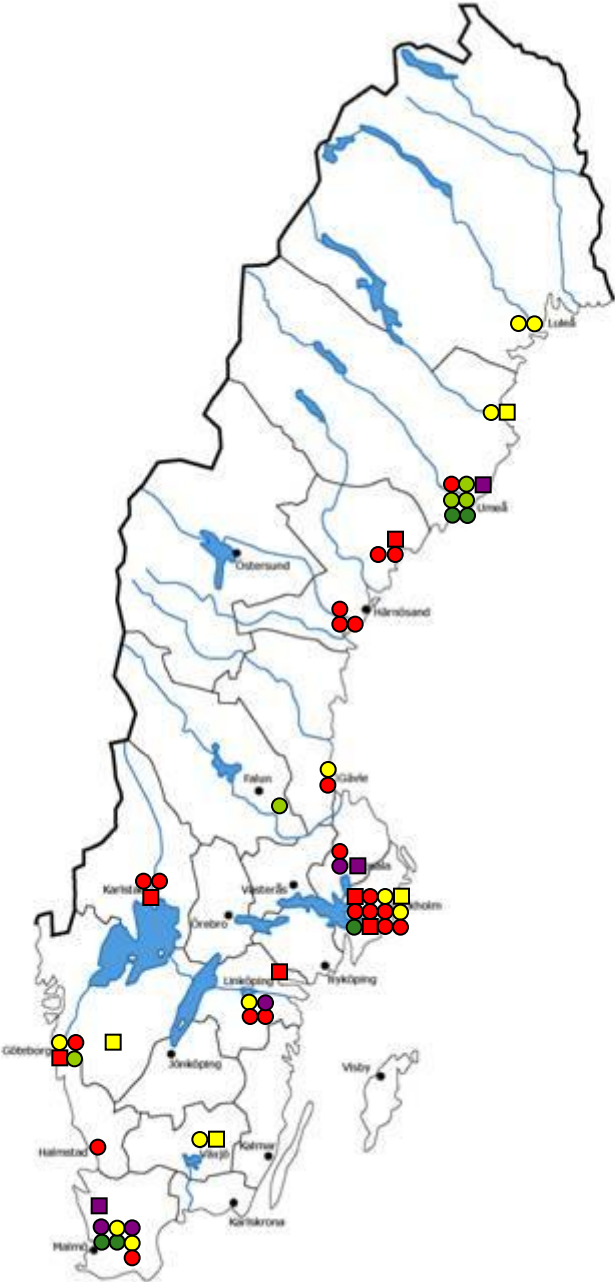
Jan Lagerström, Research Director

Organisation



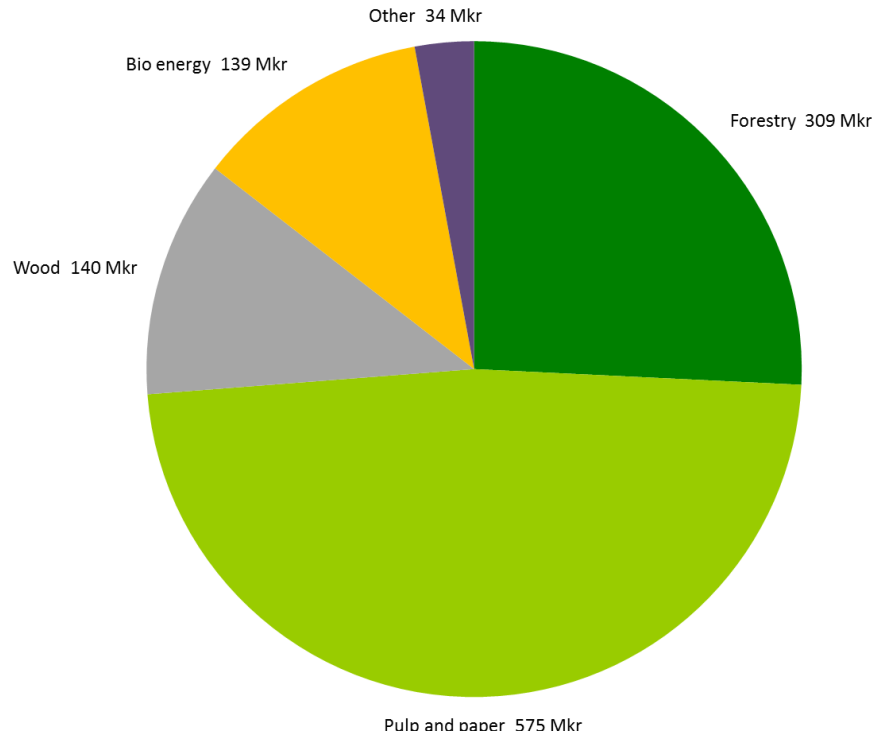
The Swedish forest-based industry research map

- Research institutes
- Universities
- ▭ Forestry
- ▭ Pulp and paper
- ▭ Wood
- ▭ Others



Research and development – R&D

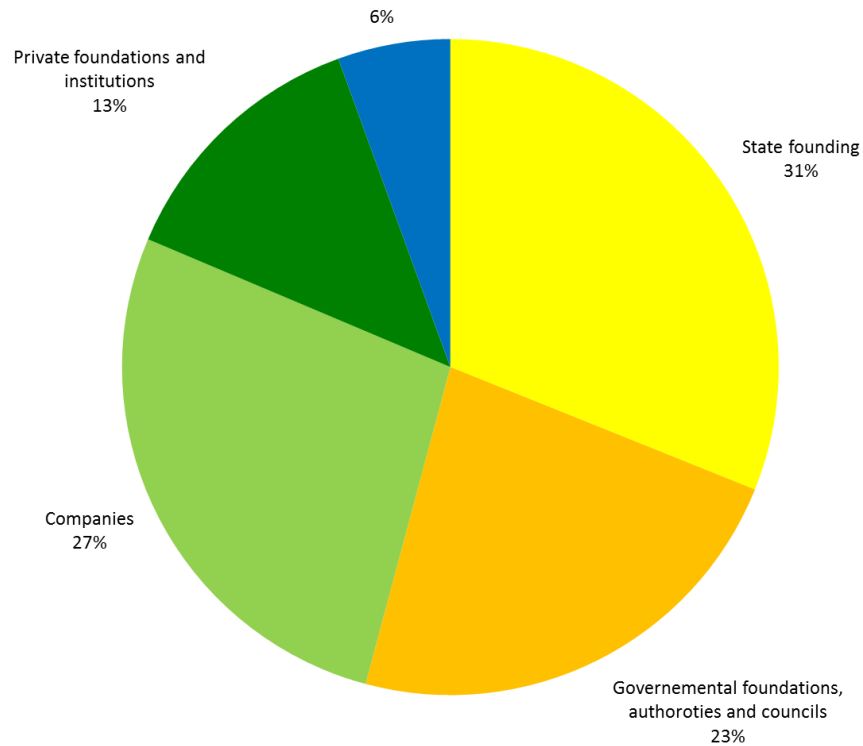
Areas for forestry and forest industry R&D at universities, technical colleges and research institutes (UTI) 2010*



* According to surveys sent to R&D providers at UTI, totalt 1 200 Mkr

Research and development – R&D

Financiers of forestry and forest industry R&D at universities, technical colleges and research institutes (UTI) 2010*



* According to surveys sent to R&D providers at UTI, totalt 1 200 Mkr

Forest industry's Vision 2035

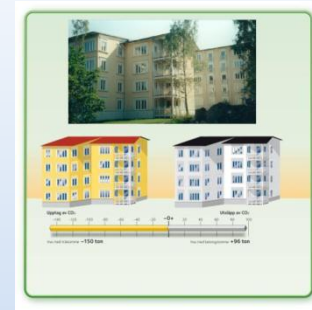
Output* in the Swedish forest-industry cluster will be doubled by 2035, with at least half of this growth deriving from new products.

*measured as processing value

GRAND CHALLENGES

Global warming

CO₂



Tightening supplies of energy, water and food

H₂O

Ageing societies and public health



What to expect in 2035?

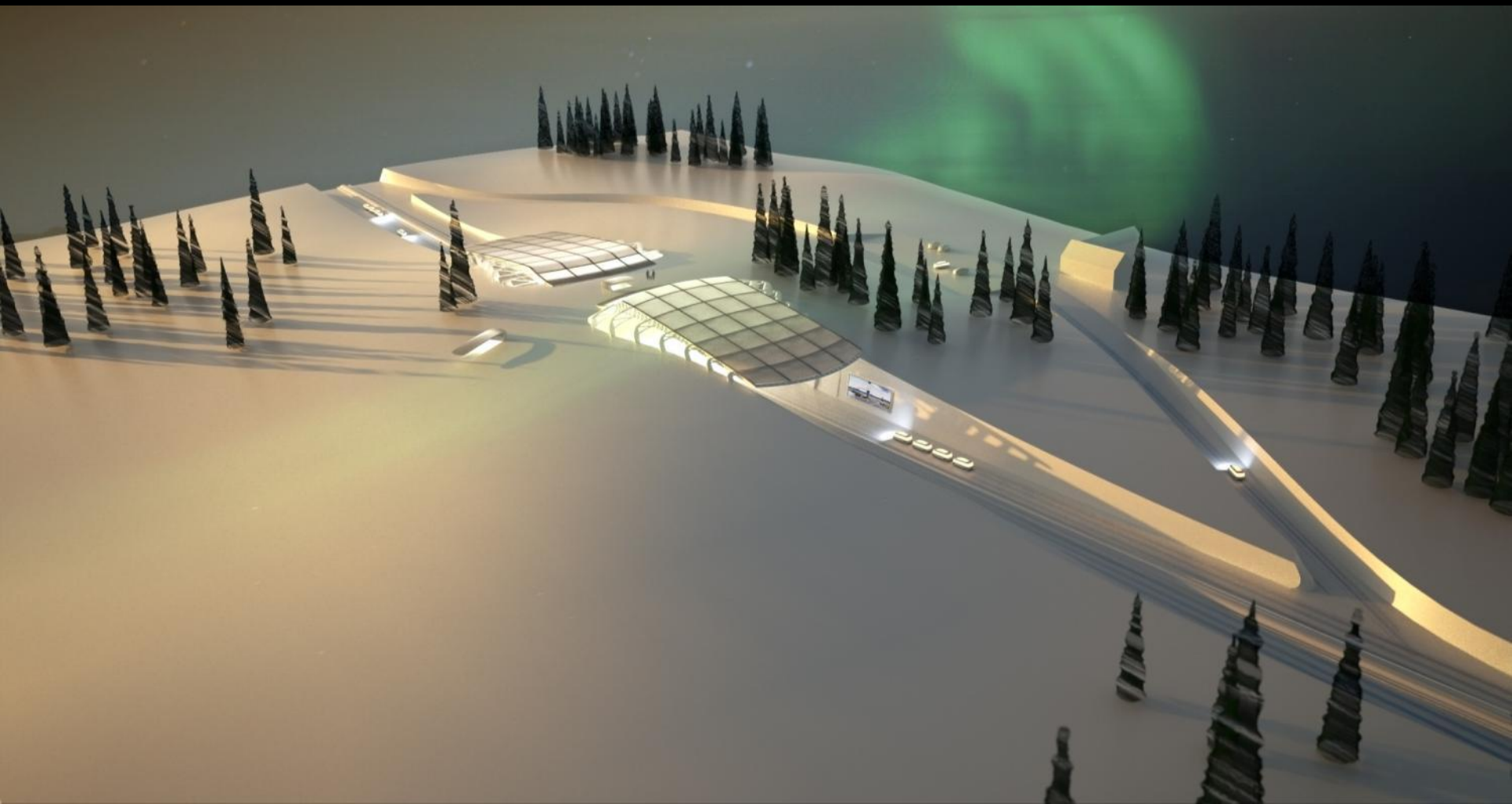


What opportunities are there for wood and fibre-based products in this environment?

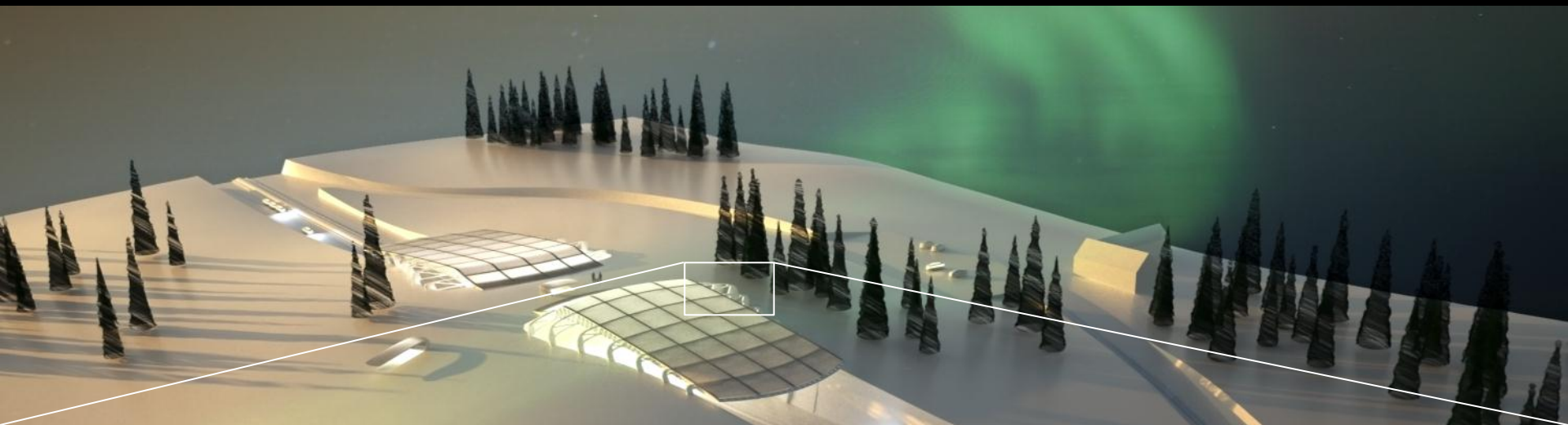


What is the role of the filling station in the future?

Ekoportal2035



Design; structural elements



WOODPOXY

Lignin-based, two-component adhesive



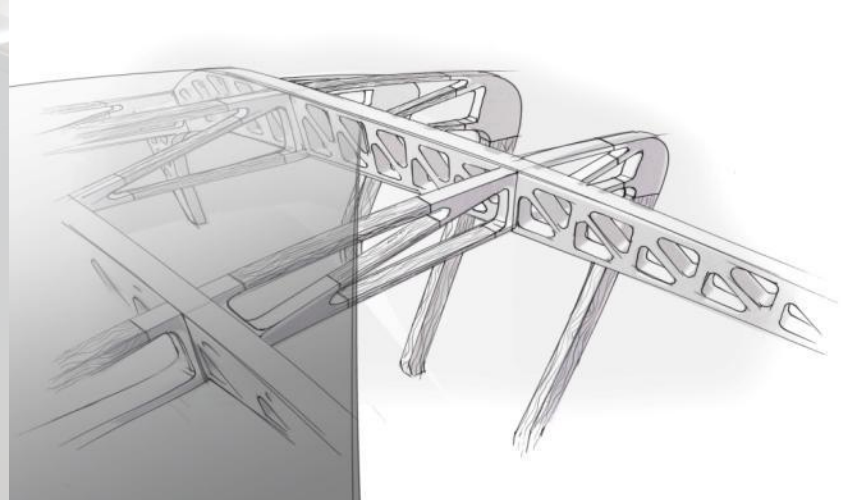
WOOD JUNCTION

Moulded fibre-composite to join structural elements

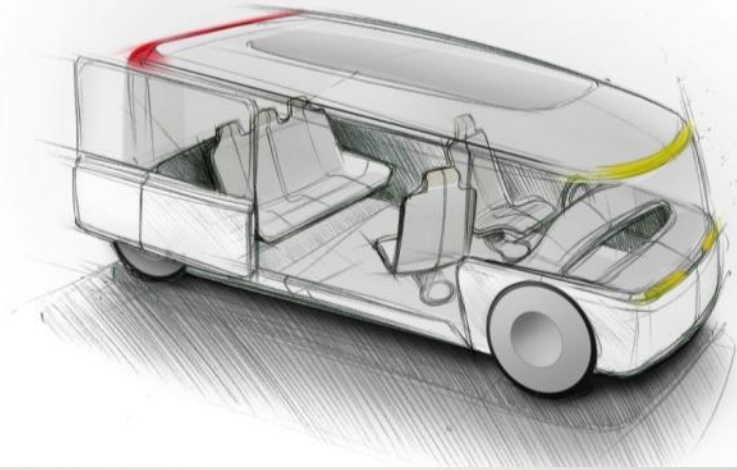


SUPERSINK

Modern joining technology for rapid assembly



Interior decor; textiles



WOODWOOL

Wood-fibre wool for durable surfaces and outer clothing



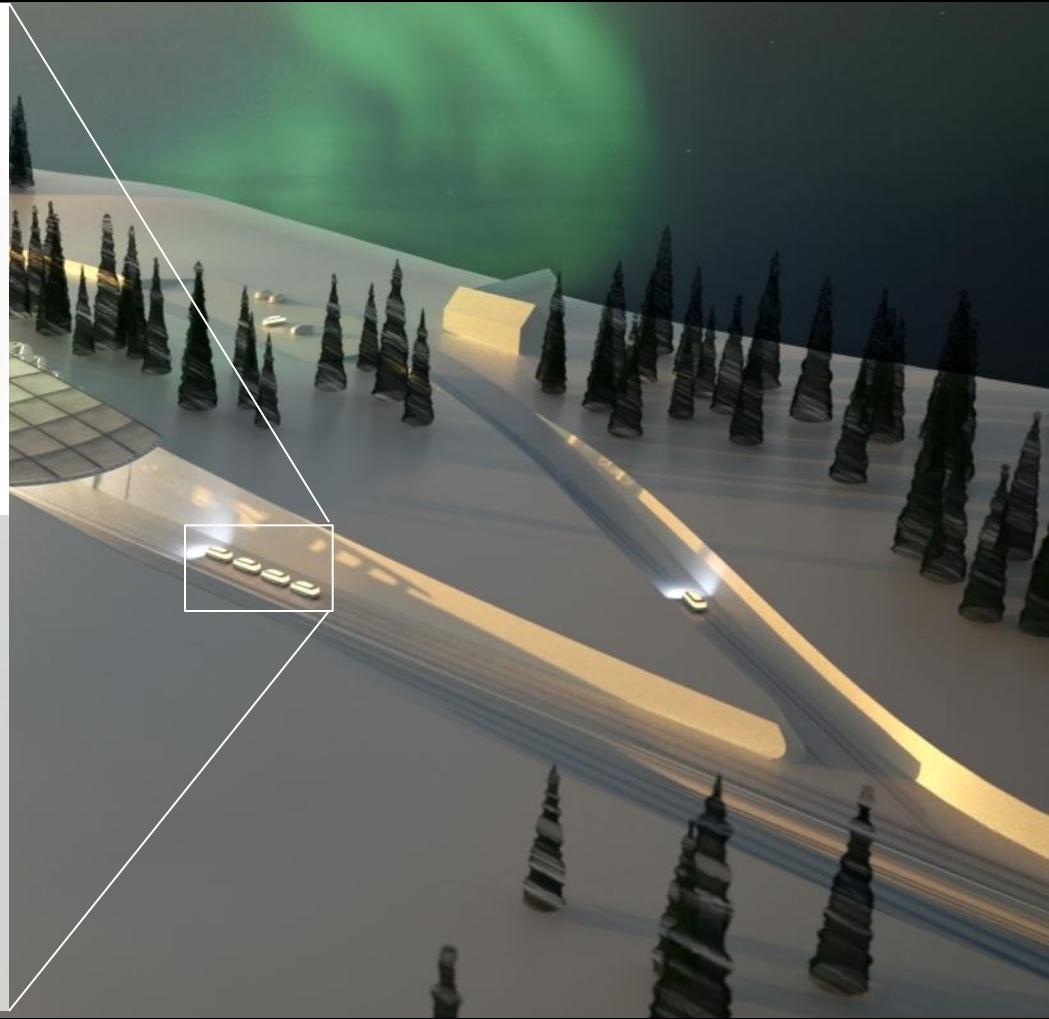
VEATHER

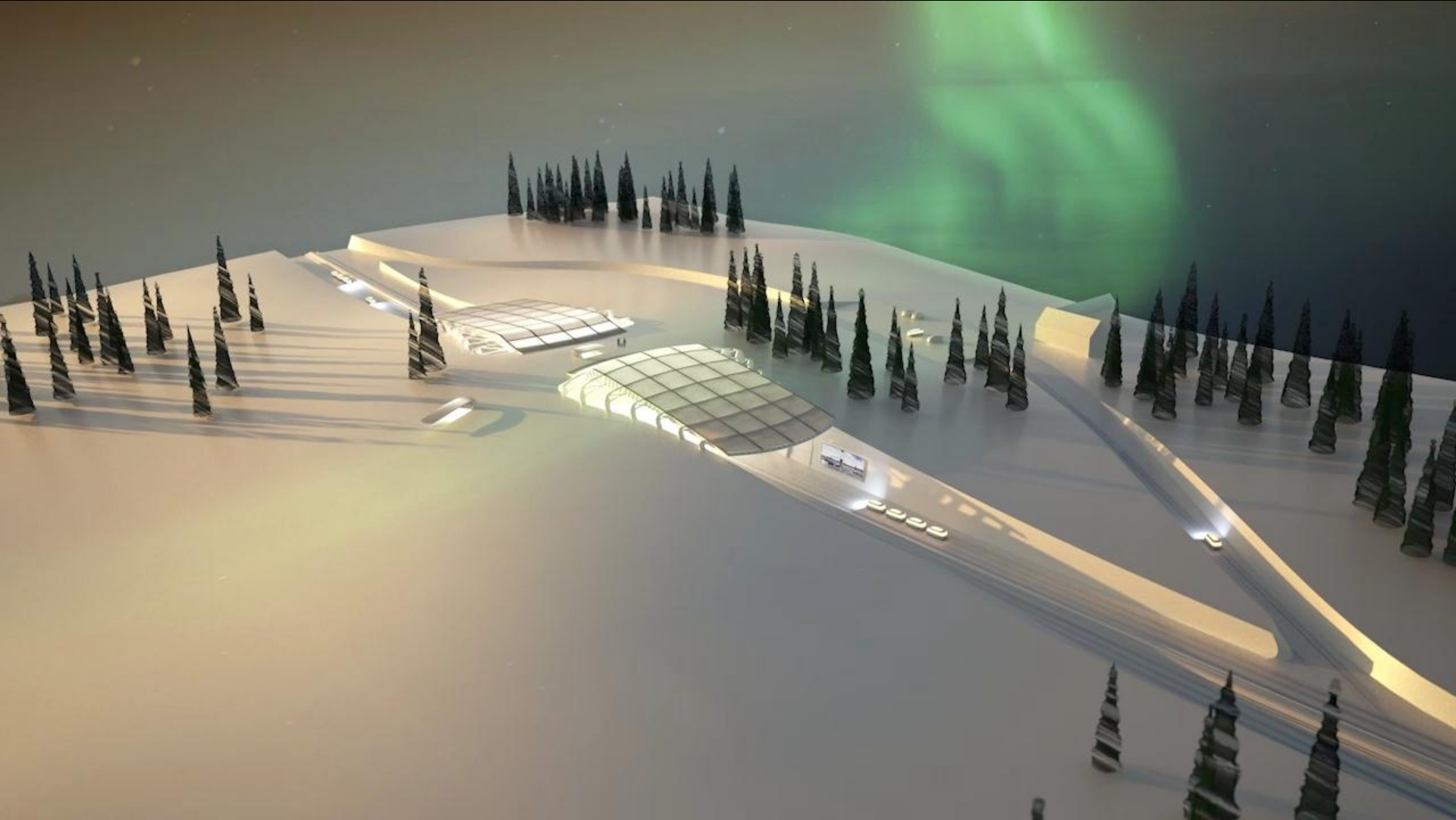
Viscos-based leather

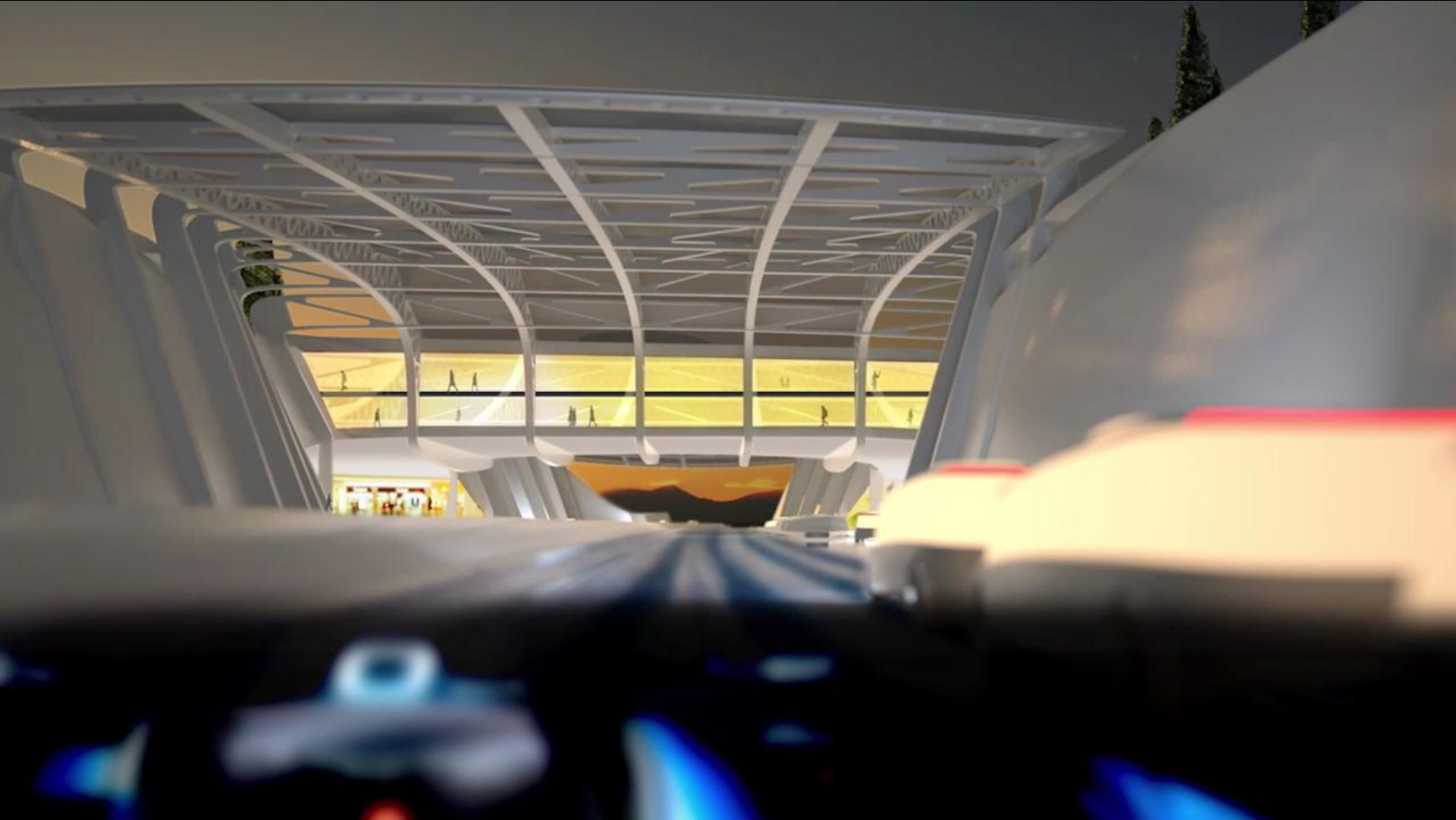


VISKOTECH

Viscos-based water-resistant textiles







Ekoportal2035 "In the city"

FASHION AND LEISURE



Ekoportal2035 "In the city"

FASHION AND LEISURE



Outdoor furniture

Resistant chair, molded in fiber reinforced suberin-based bioplastic – SuberComp. Cushion of durable ViscoTech, padded with SoftWool from carded viscose residues and LotusLayer-treated superhydrofob, self-cleaning surface.



SuberComp



ViscoTech



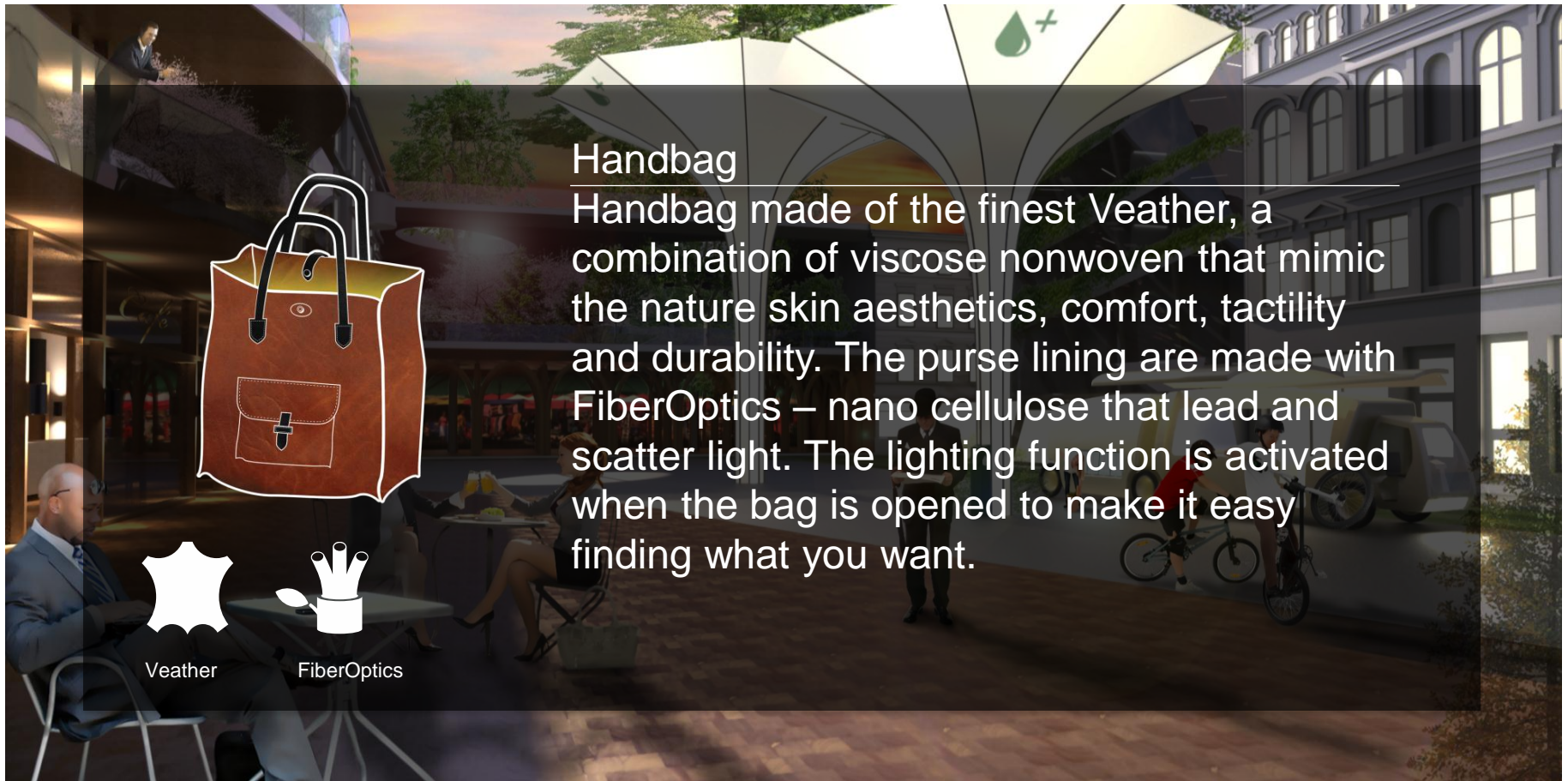
SoftWool



LotusLayer

Ekoportal2035 "In the city"

FASHION AND LEISURE

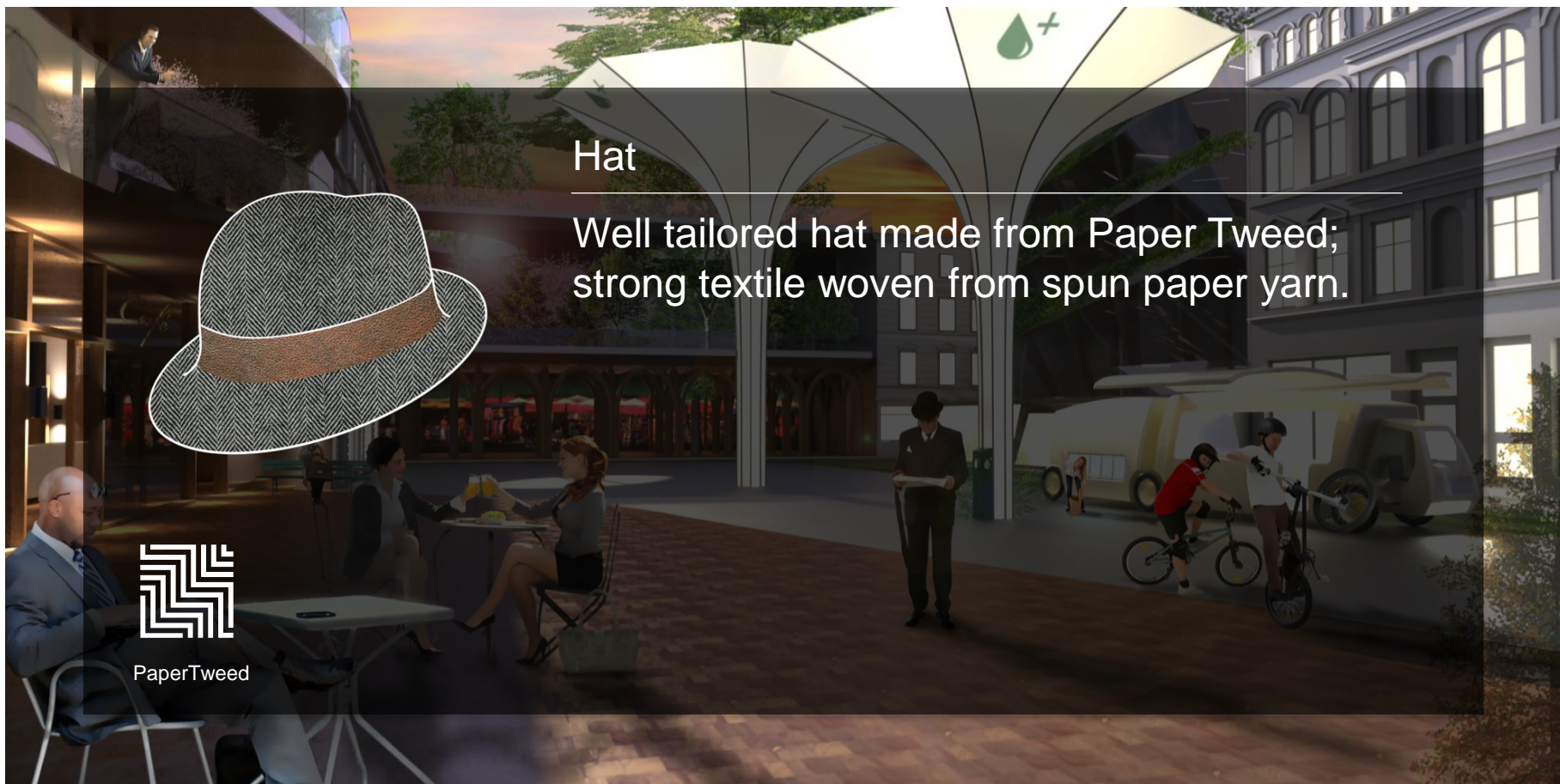


Handbag

Handbag made of the finest Veather, a combination of viscose nonwoven that mimic the nature skin aesthetics, comfort, tactility and durability. The purse lining are made with FiberOptics – nano cellulose that lead and scatter light. The lighting function is activated when the bag is opened to make it easy finding what you want.

Ekoportal2035 "In the city"

FASHION AND LEISURE



Hat

Well tailored hat made from Paper Tweed;
strong textile woven from spun paper yarn.



PaperTweed

RDD as an active part of innovative thinking

- In both companies and UTI, interdisciplinary research of both a long-term and developmental character, comprising both basic and applied research and also development, demonstration, pilot facilities and experiment building.
- Demonstrations are key to RDD in order to market, test and verify research results in reality, such as in demonstrations and pilot facilities, prototypes, experiment buildings or market testing.
- Requires broad collaboration between the industry and those who will be using the new materials and products.
- The Swedish National Research Agenda, NRA, is the joint analysis of RDD areas prioritized by the research community, business world and research-financed authorities. The NRA and Ekoport2035 demonstrate numerous opportunities for innovation in the sector.
- A collaboration programme should be financed jointly by the business community and the government to ensure breath and to provide scope for new players and business areas that do not exist in today's industry, and to ensure high quality.