

# Södra & die Möglichkeiten für Bioraffineriekonzepte in der Cellulose-Industrie

5. Bioraffineritag – DBFZ Leipzig  
10. September 2024

Stefan Heyne - Södra Innovation





A photograph of a forest floor covered in vibrant green moss. In the background, several tall, slender tree trunks are visible, slightly out of focus. The lighting is soft, creating a serene and natural atmosphere.

Our vision

**Rooted in the forest, we  
grow the future**





A group of people, including a woman with blonde hair and a man with glasses, are shown in profile, looking towards the right. They are in a forest setting with trees in the background. The text is overlaid on the left side of the image.

# More than **50 000** forest owners as members

Södra is Sweden's largest forest-owner association with more than 50,000 forest owners as its members.

We process the sustainable forest raw material from the members' responsibly managed forests into renewable and climate-smart products and solutions that generate **value** for many people.





## Södra in figures 2023

**2,8** Members' forests  
million hectares

**52,000** members

**29** Nettoomsättning  
SEK billion

**3,400** employees

**03** pulp mills

**17** Wood volume  
million m3 sub

**19** forestry operations  
areas

**08** sawmills



***“We don’t know today how forest products will be used in the future. Make sure you don’t stand empty handed when that day comes.”***

**Gösta Edström**

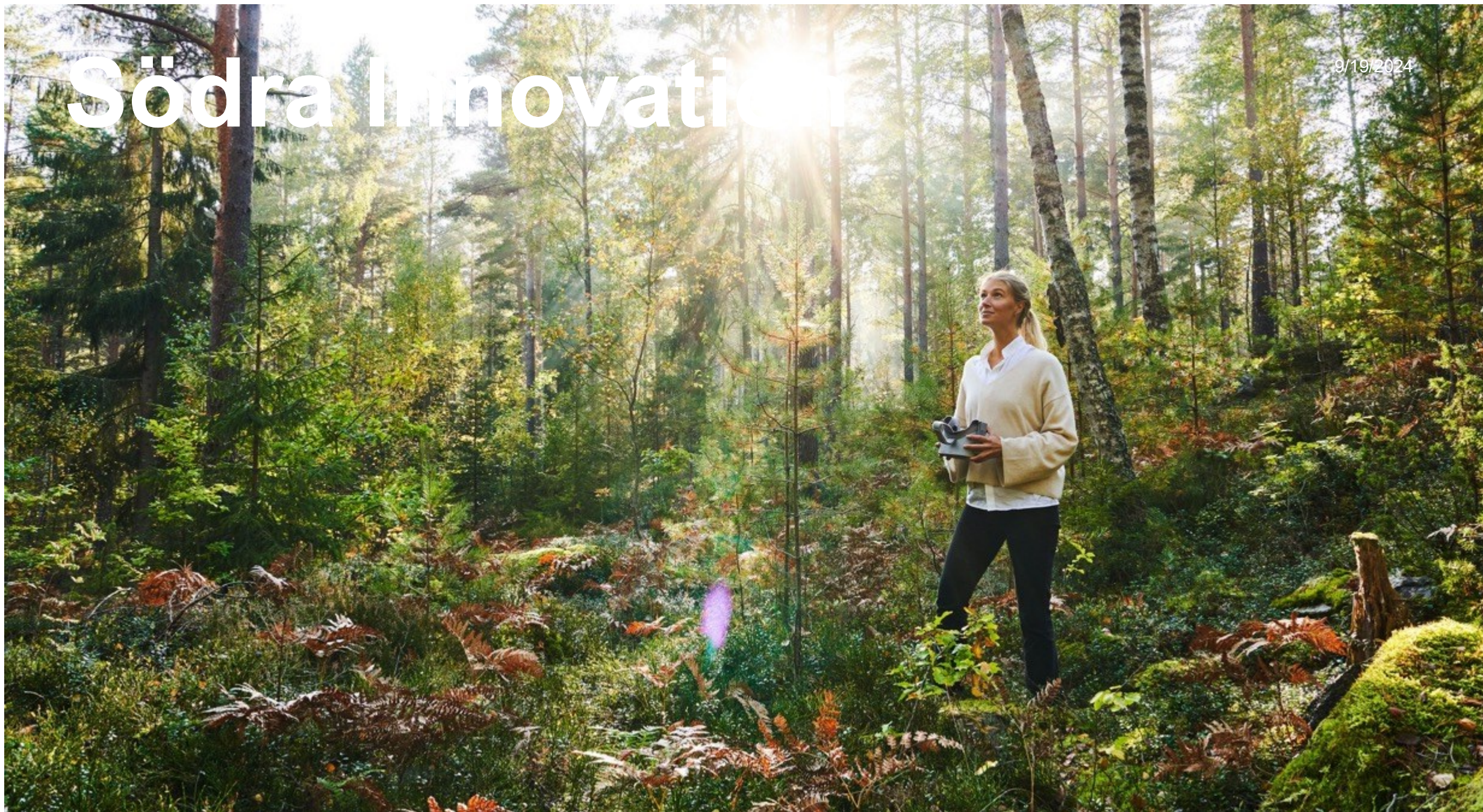
Södra’s founder, 1938





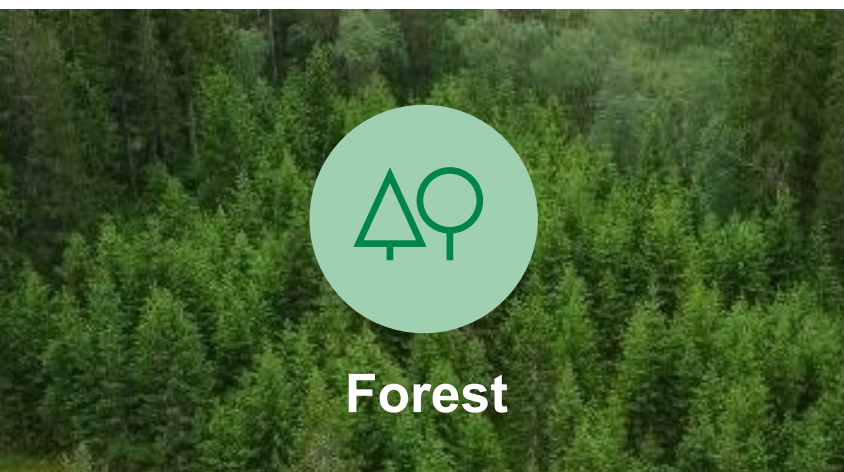
# Södra Innovation

9/19/2024

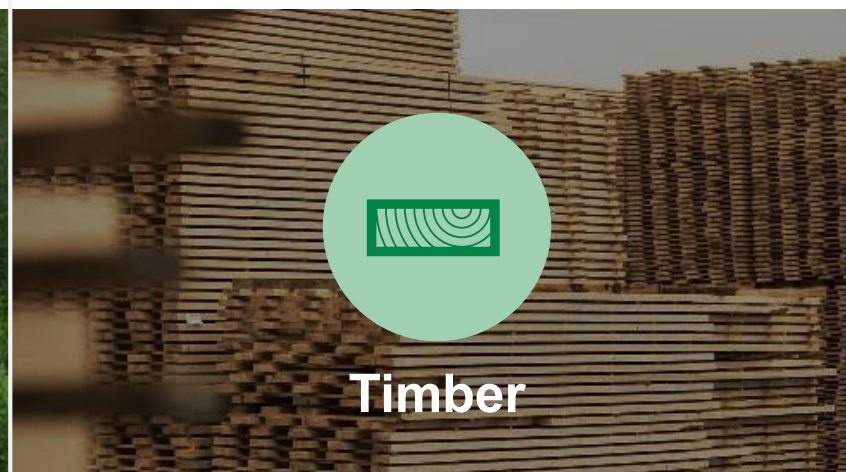




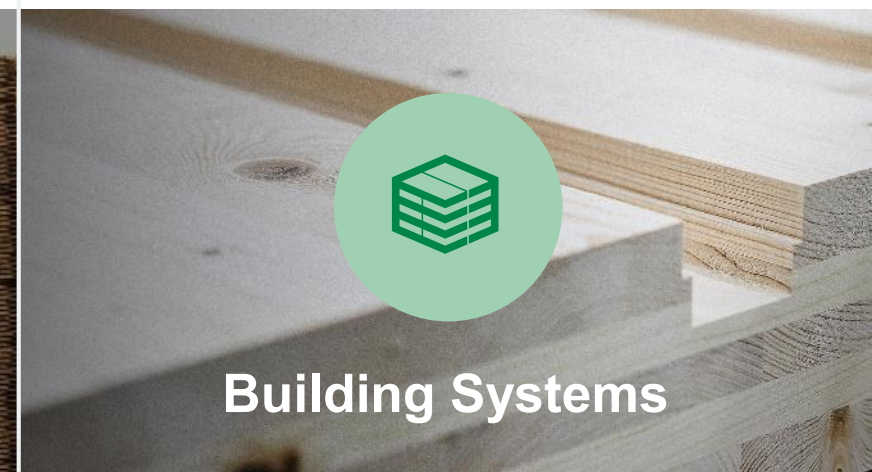
# Renewable wood raw material from our members' forests



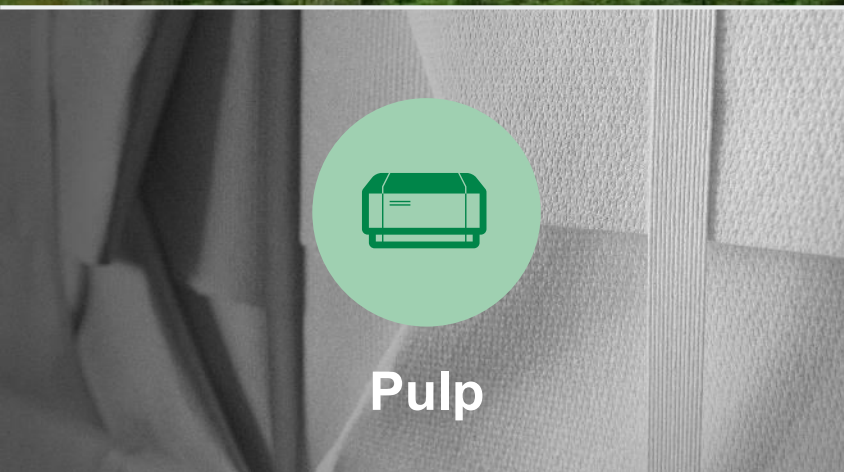
Forest



Timber



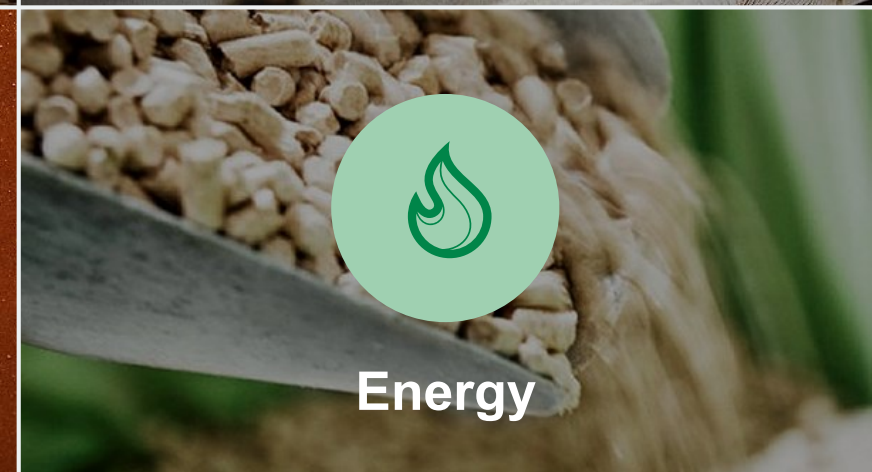
Building Systems



Pulp



Liquid bioproducts



Energy

# From family forestry to the global market

- New ways to use our forest raw material
- The strength of 52,000 family forest owners
- The new Innovation business area is enabling us to intensify our focus on the future





# Long-term approach

- The external environment and the economy have a major impact on investments in the green transition
- We are continuously following developments to understand how we can best contribute over time

DIGITISATION

DEMOGRAPHICS

GEOPOLITICS

CLIMATE CHANGE

TRANSITION



# Maximised and optimised

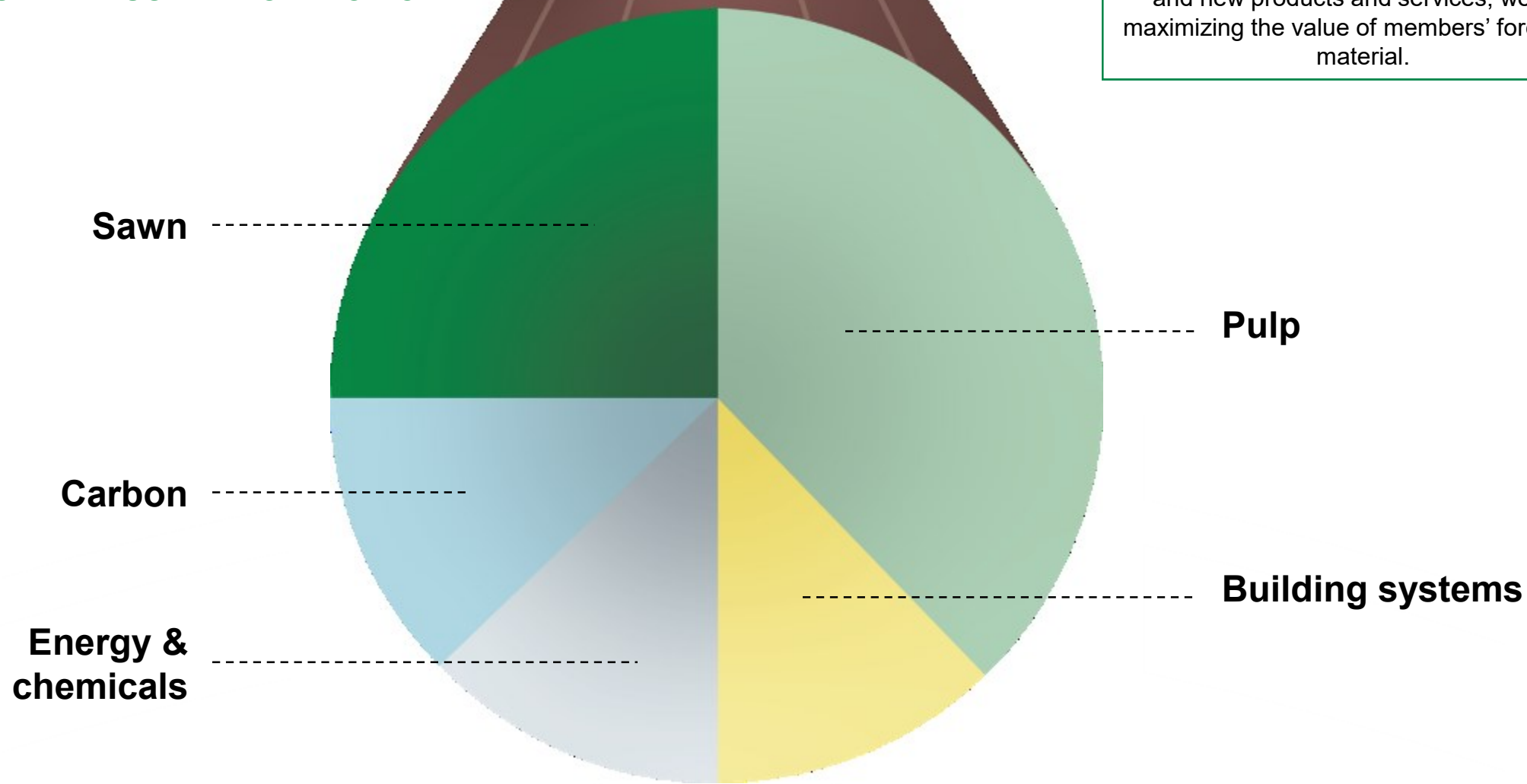
- All industries are looking for new and more sustainable solutions
- The use of raw material from Södra's family-owned forests needs to be maximised and optimised
- How can we contribute to a maximum extent to a sustainable society?





**CUSTOMER-ORIENTED OFFER –  
OUR FUTURE INDUSTRY PORTFOLIO**

By offering products with a low carbon footprint, certifications and labelling, and assessing the sustainability of investments and new products and services, we are maximizing the value of members' forest raw material.





## Energy & chemicals from biomass

- Biorefineries for a bio-based and circular economy
- Carbon capture as a complement
- High demand for biomass – but a hot political topic
- External partnerships to develop tomorrow's biorefineries



# Project within our areas of innovations

- Process development within paper
- Fiber Safe
- Building system, CLT
- OnceMore
- Biomethanol
- Njord
- Lignin
- Tannin
- BraSatt
- Propagation and breeding





# Biomethanol

- World's first biomethanol plant in operation at pulp mill Mönsterås since 2020
- Capacity of about 5 000 ton MeOH per year
- Making use of side stream during black liquor evaporation
- Could be established at our two other mills as well





# Lignin project

- 2 billion SEK investment
- 300 million SEK of public funding (Swedish Energy agency/EU)
- Expected to be in operation 2027
- Largest commercial kraft lignin plant in the world
- Andritz chosen as supplier

## ANDRITZ to supply world's largest lignin production system to Södra pulp mill in Sweden

2024/07/03

Swedish forest industry group Södra has selected international technology group ANDRITZ to supply a complete solution for kraft lignin production to its Mönsterås pulp mill in Sweden.

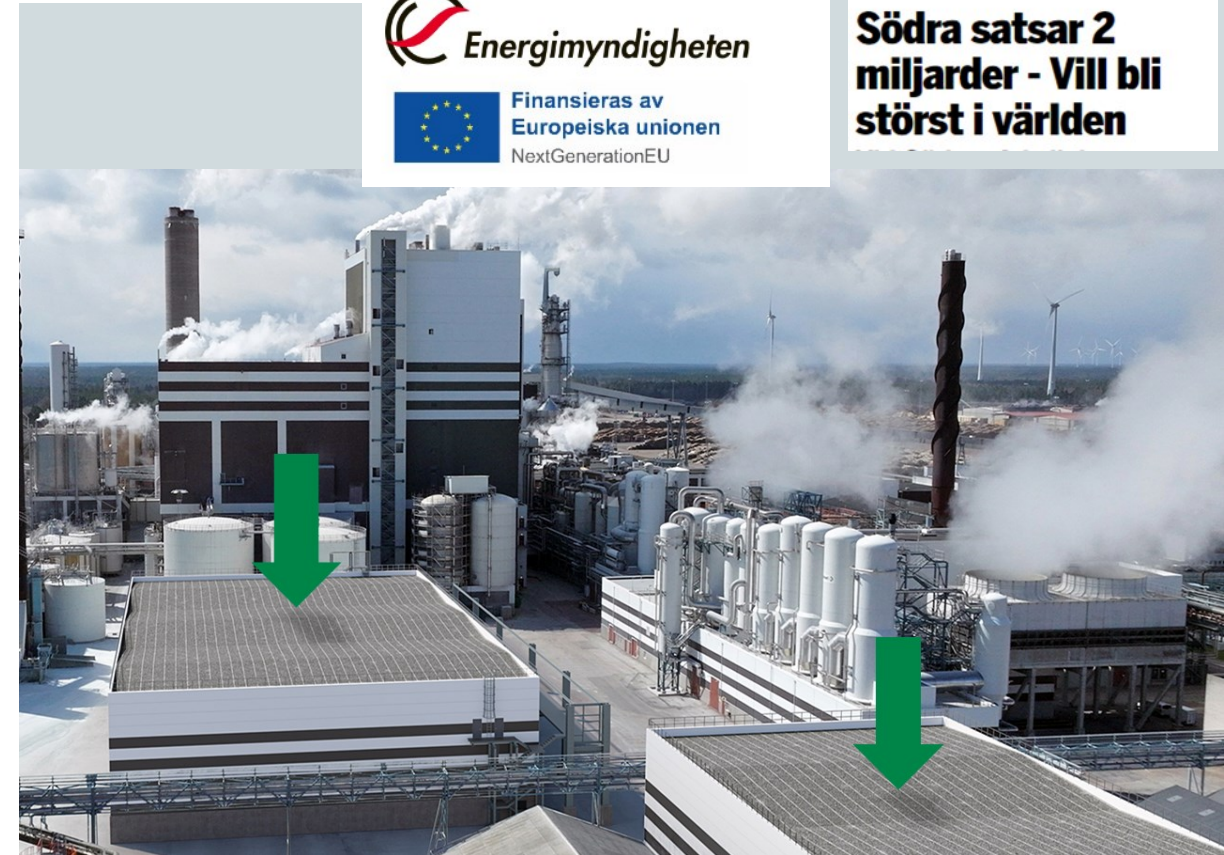
This major investment marks Södra's entry into the lignin market as part of its strategy to make the most of the wood used in pulp production. This will be the first commercial kraft lignin plant in Sweden and the largest in the world.



Bild av hur den framtida anläggningen i Mönsterås kommer att se ut.

Bild: Södra

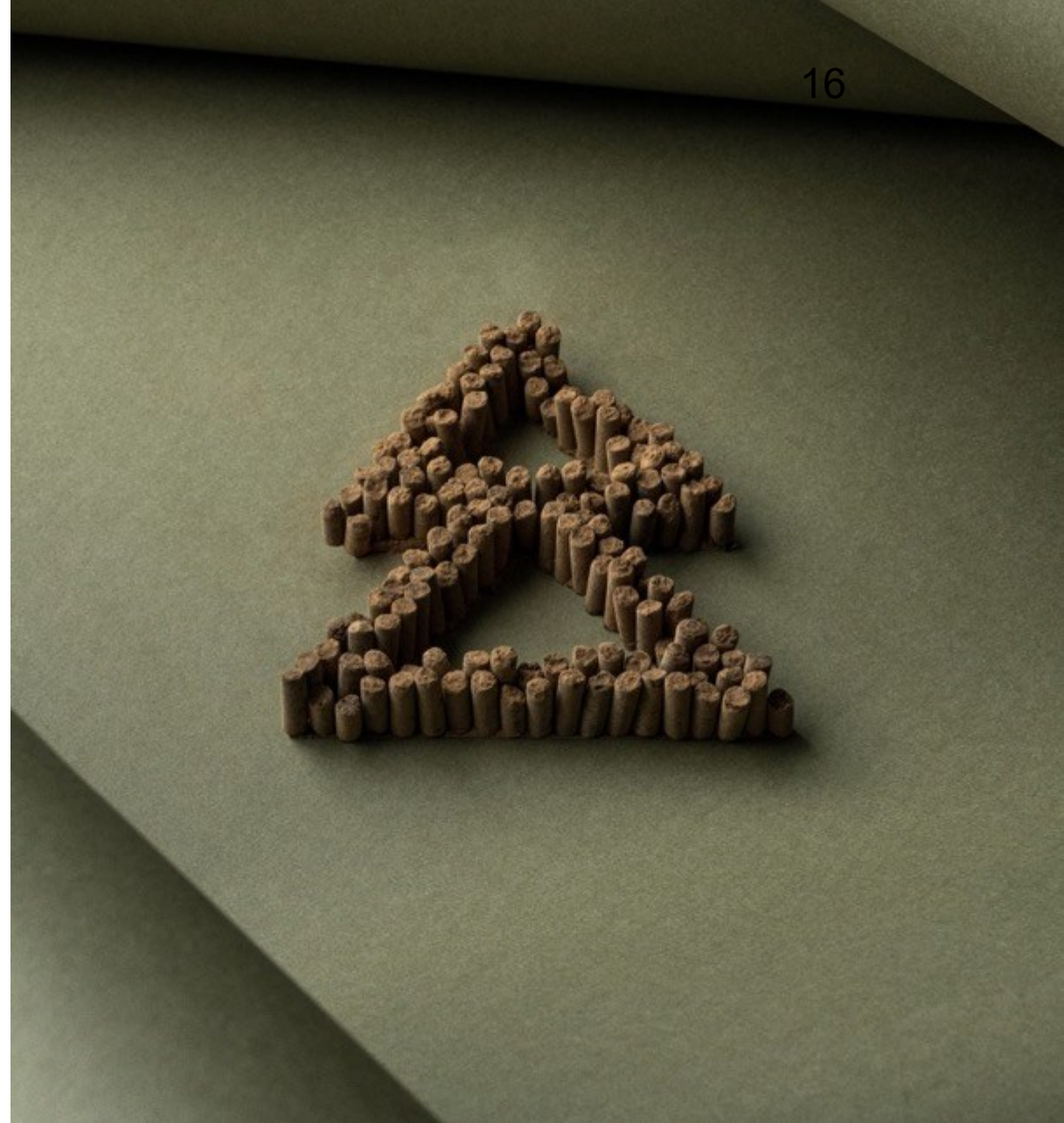
**Södra satsar 2 miljarder - Vill bli störst i världen**





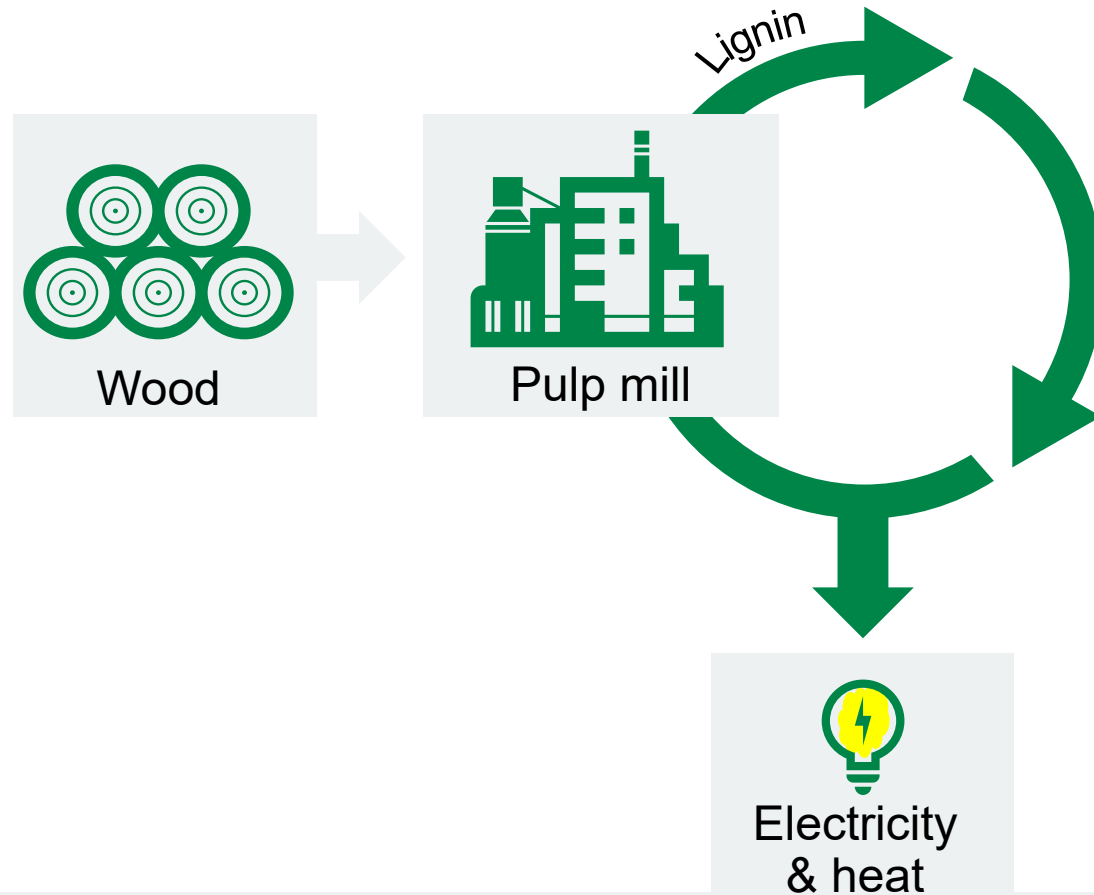
## Lignin project

- We are planning to prepare large volumes of lignin for the market
- Several joint projects to study how our lignin can best be used
- Some of the potential applications for lignin that are being studied:
  - As a binding agent in a range of applications
  - As a precursor material in the chemical industry
  - In new materials such as bio-based plastic, rubber, etc.

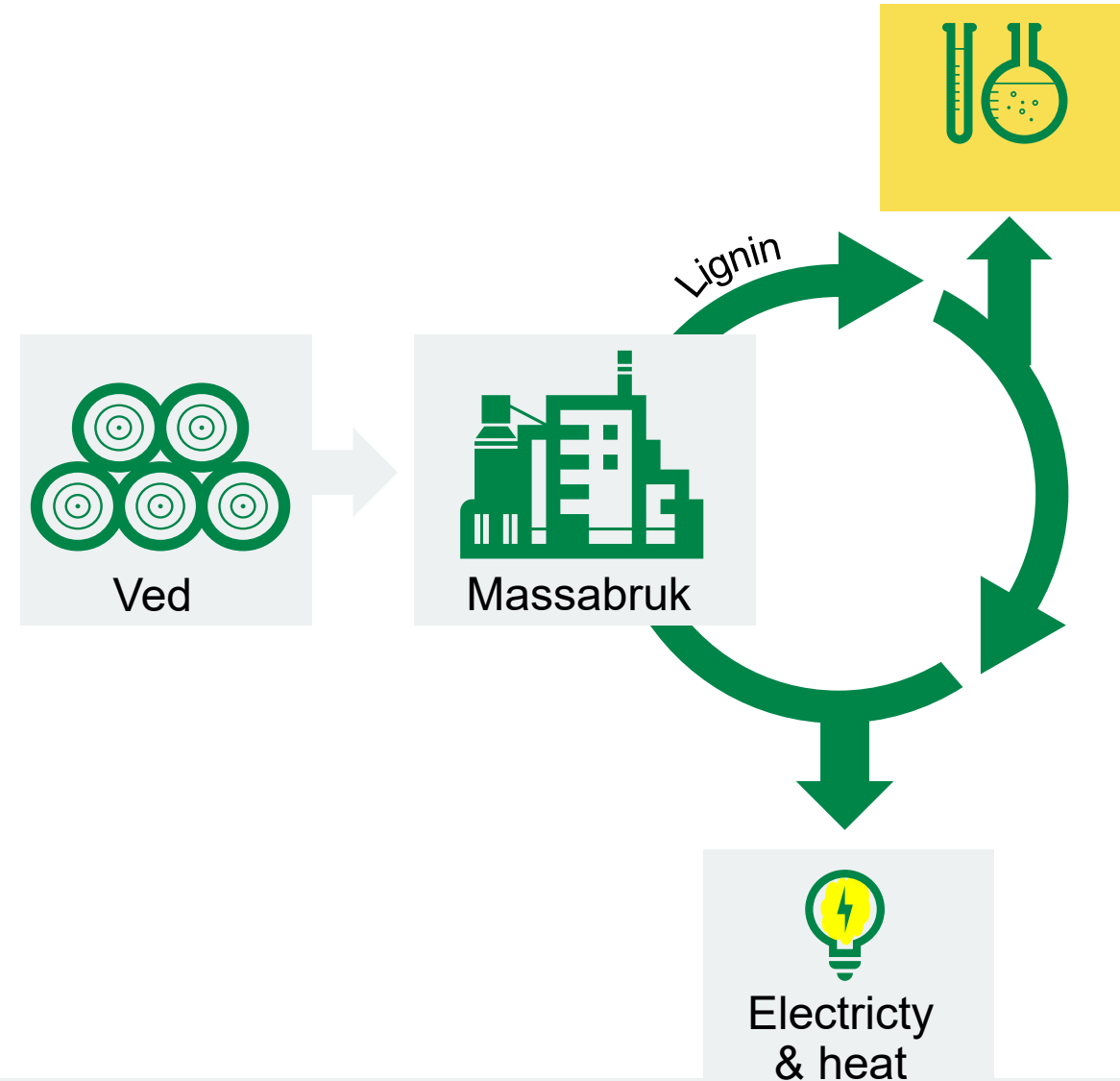




## Lignin at Södra today



## Lignin at Södra tomorrow !





# Today

Glue



Asphalt



Bituminous products



Energy



# Tomorrow and beyond

Batteries



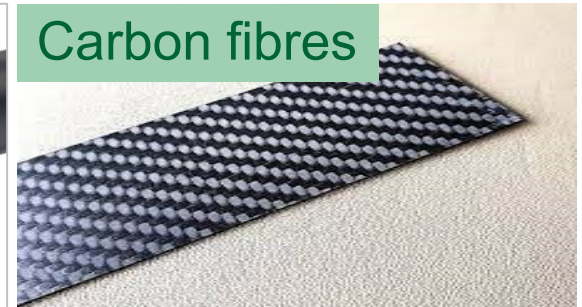
Binding agent



RFF/Carbon black



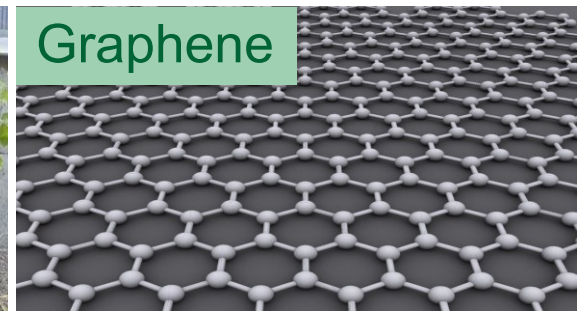
Carbon fibres



Biostimulants



Graphene





# Production of bark-based tanning agent

- Södra is investing in a production line at Södra's site in Värö, scheduled to be commissioned in 2026
- An investment that fits well with Södra's overall ambition to increase the added value from every tree
- Tannin is mainly used as a tanning agent and the plant will have the capacity to produce tannins for millions of square metres of leather
- Using bark for tanning is not new, but Södra is now industrializing the process in which the tanning substance is leached from the bark and turned into a product for tanning leather





# Södra's biorefinery options

- Needs to "fit" – **maximise value generation from trees**
- Collaboration needs
  - Timing
  - Resources – both human and financial
  - Internal collaboration – aligned with all business areas
  - External collaboration
    - Company profiles/strategies need to match
    - ... and again => Timing!!
- Policy - Sustainability
- Funding & Markets
- Multiple options make decision making more difficult
  - **Scientific support combining new technology development & system level perspective very important!**







OUR COMMON STRATEGY



From one family to another







sodra.com

 **SÖDRA**