

Project idea:

# Antimicrobial nonwovens based on forest resources

- **Motivation**

- Replace fossil-based nonwovens
- Create functionalized material, completely forest-based
- Address problems with e.g. health care associated infections and antibiotic resistant pathogens

- **How?**

- Novel bio-based compounds based on oligo- and polysaccharides
- Established solution blown technique for formation of cellulose nonwovens



# Current partners

- **Swerea IVF – Mölndal, Sweden**

Competence:

- cellulose dissolution, coagulation, and regeneration
- wet-spinning, fiber development, nonwovens
- surface technology

Equipment in various scale for spin dope preparation as well as melt- and solution blown apparatus. Instruments for mechanical testing and evaluation of textiles.

**swerea|IVF**

- **Centre of excellence for polysaccharide research – Jena, Germany**

Competence:

- polysaccharide chemistry and analysis, dissolution and derivatization,

Fully equipped chemistry lab for organic synthesis as well as analytical instruments (chromatography, NMR, FTIR, microscopes, rheometers...)



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# Looking for at Webinar

- **Raw material supplier**
  - Industrial partner, e.g., cellulose producer or biorefinery
- **Product owner**
  - Companies with interest in the medical technology sector, e.g., wound care, medical textiles, items for one-time use etc.

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**More info on the solution blown technique:** <https://www.swerea.se/en/areas-of-expertise/materials-production/textiles-production/solution-blown>



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