



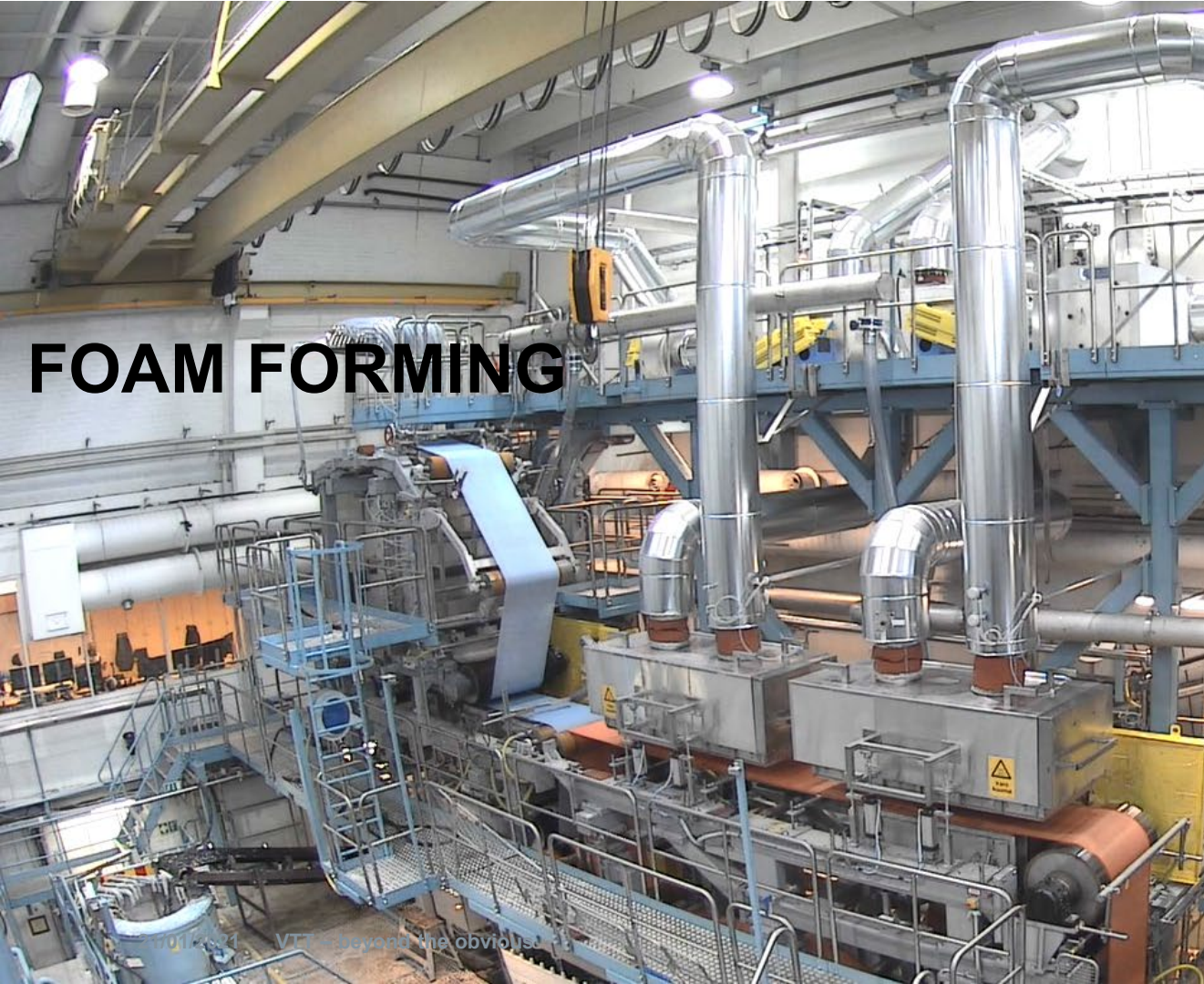
Foam formed nonwovens based on recycled cotton - NordicBio

Finnish-Swedish digital textile
seminar, January 14th 2021
Petri Jetsu, Taina Kamppuri, Pirjo
Heikkilä

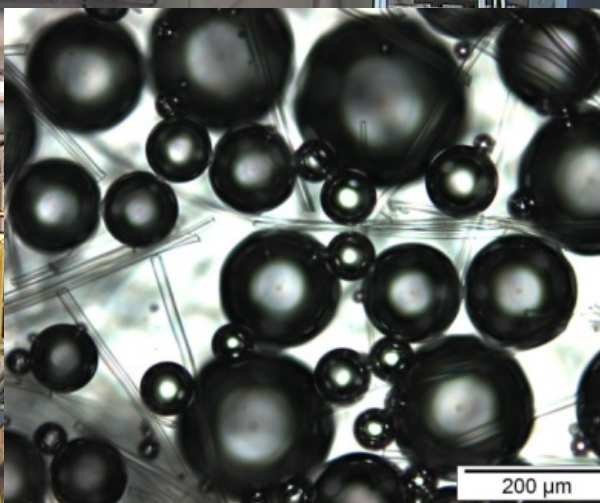
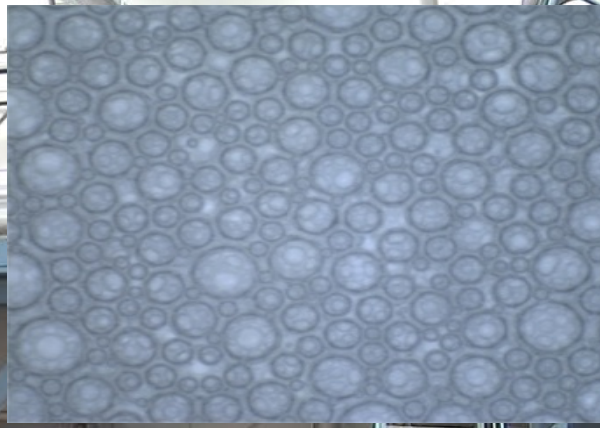
21/01/2021 VTT – beyond the obvious



FOAM FORMING



← 2000 μm →

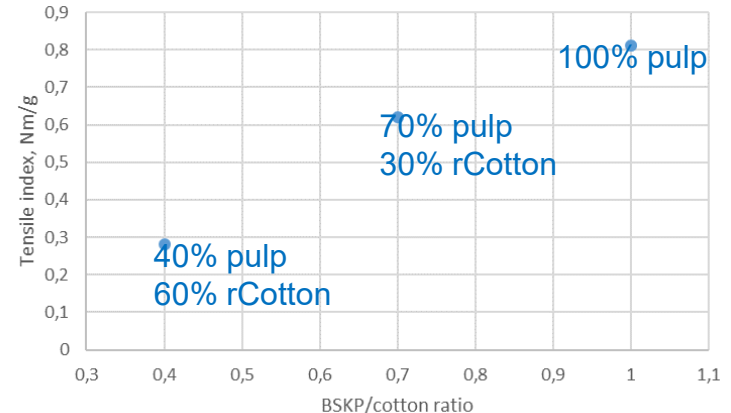


Main actions

- Shortening and processing of fibres
 - Mechanically opened cotton and polycotton batches
- Laboratory scale tests
 - Different material combinations
 - Different bonding methods
 - Bi-co fibres – thermal
 - Hydroentanglement
- Pilot trials



Foam formed sheets from shortend fibres



Lab scale tests: optimization of material combination

Summary

- Recycled cotton and polycotton fibres worked well in foam forming process
- The strength of produced webs based on recycled cotton fibres was at good level and met the expected target values.
- However the grammage of webs was higher than commercial nonwovens meaning that in the long run the strength/grammage ratio has to be improved.