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# Poll Time!



**Do You use  
Liquid or Powdered  
laundry detergent?**

- **Liquid**
- **Powdered**
- **Something else**



Space uptake  
Ease of use  
Effectiveness  
Cost  
Eco Score  
Plastic Waste  
Safety  
Clumping?

*Why not  
make  
sheets?*

*PVA sheets exist already mister...*

*Why not  
make  
bio-based  
sheets?*



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# Fibrillated Cellulose as Delivery matrix for Solid Detergent Sheets

# Sappi – a diversified woodfibre group

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- Global coverage;
- paper & pulp;
- high quality functional biomaterials;
- Leader in woodfibre technologies.

We believe building a thriving, sustainable world is a moral and business imperative, affecting each and every decision we make across all processes and product segments.

# At a glance: Sappi solutions

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We are a  
*diversified, innovative and trusted leader*  
that unlocks the  
*power of renewable resources*  
for use in:



Dissolving pulp



Graphic papers



Packaging and specialty papers



Casting and release papers

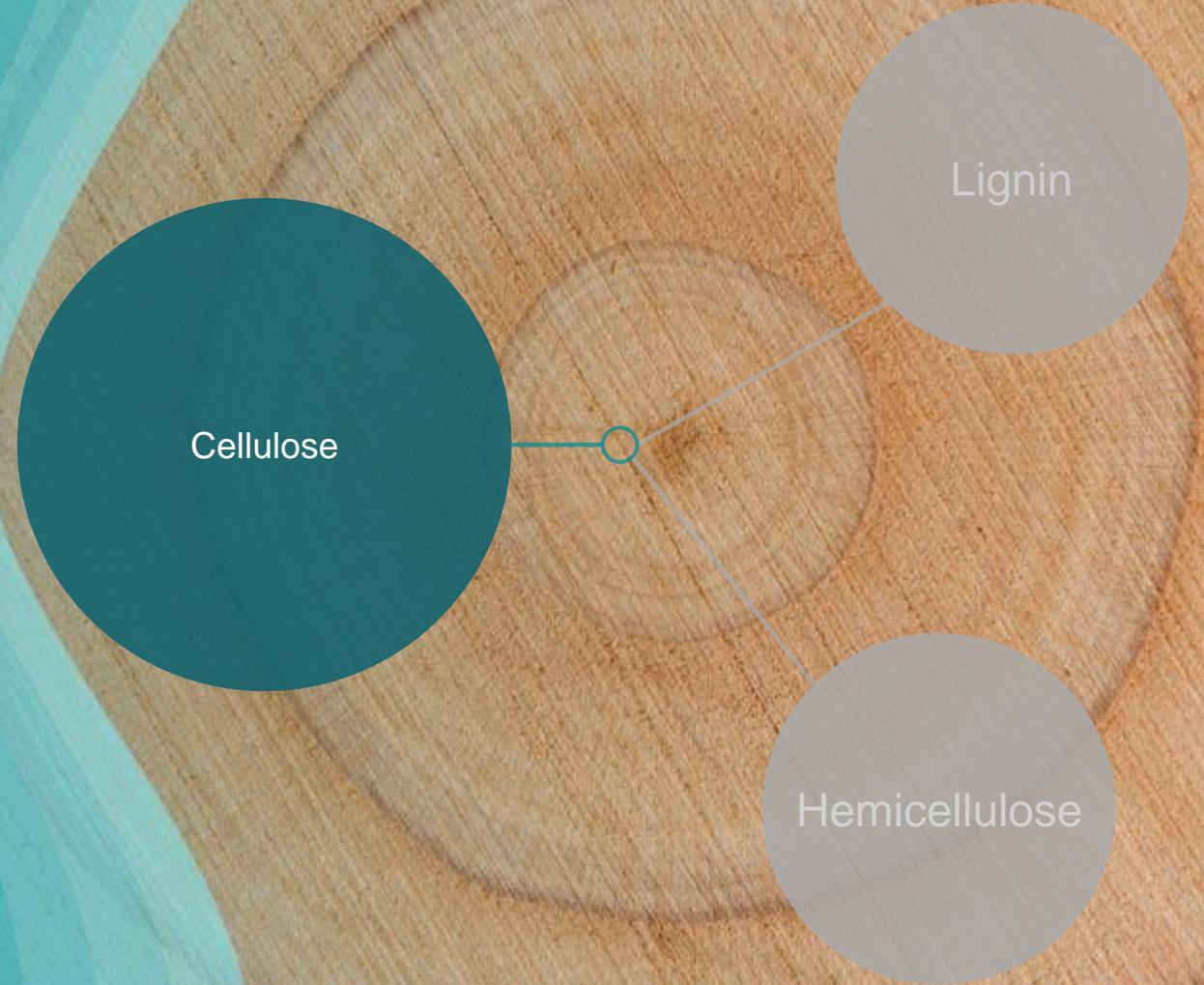


**Fibrillated Cellulose**



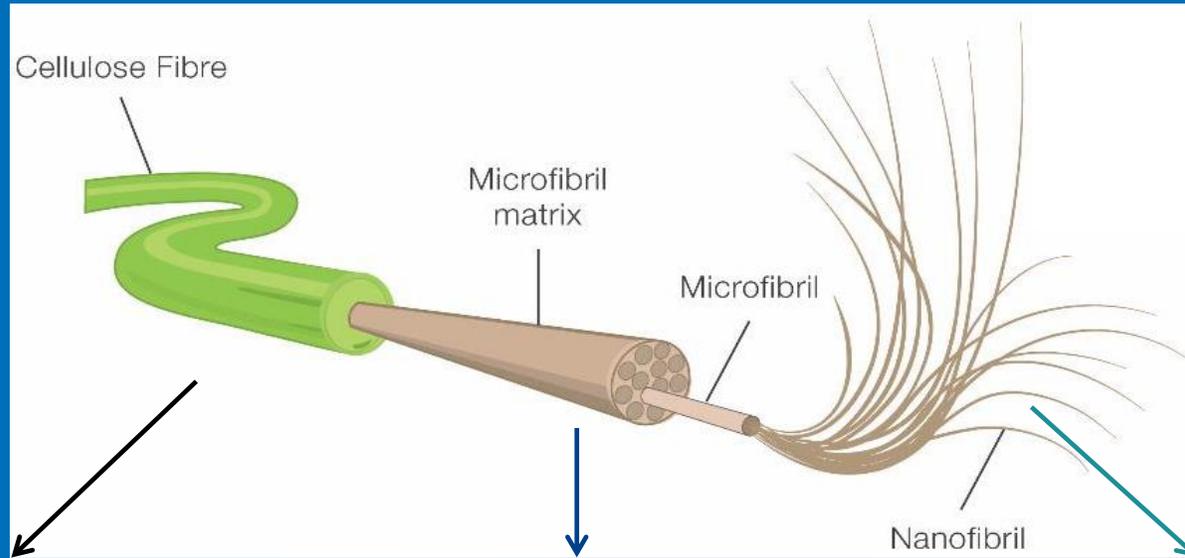
Forestry

# Valida - Fibrillated Cellulose

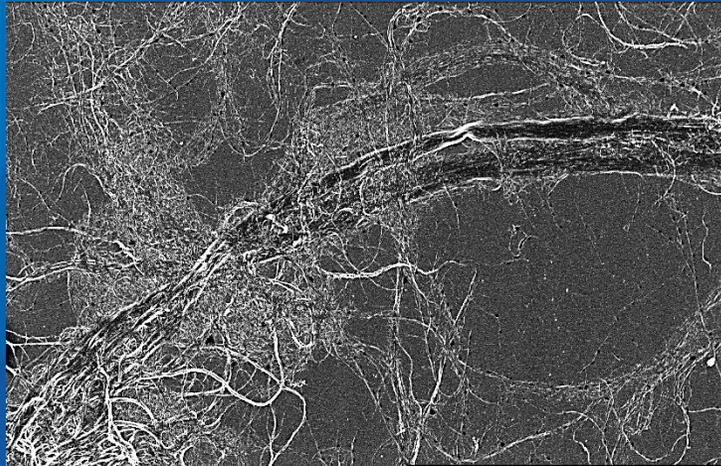


# Valida fibres

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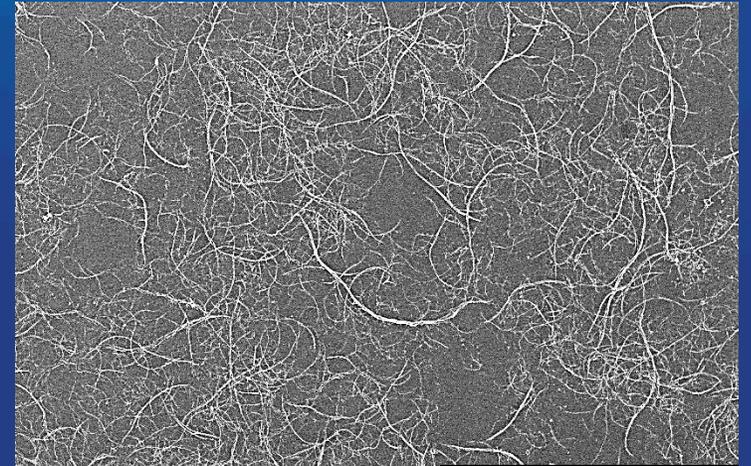


**Non-processed cellulose fibres**



Regulus 2.0kV 3.7mm x5.00k SE(U)

**Valida L**



Regulus 2.0kV 3.5mm x5.00k SE(U)

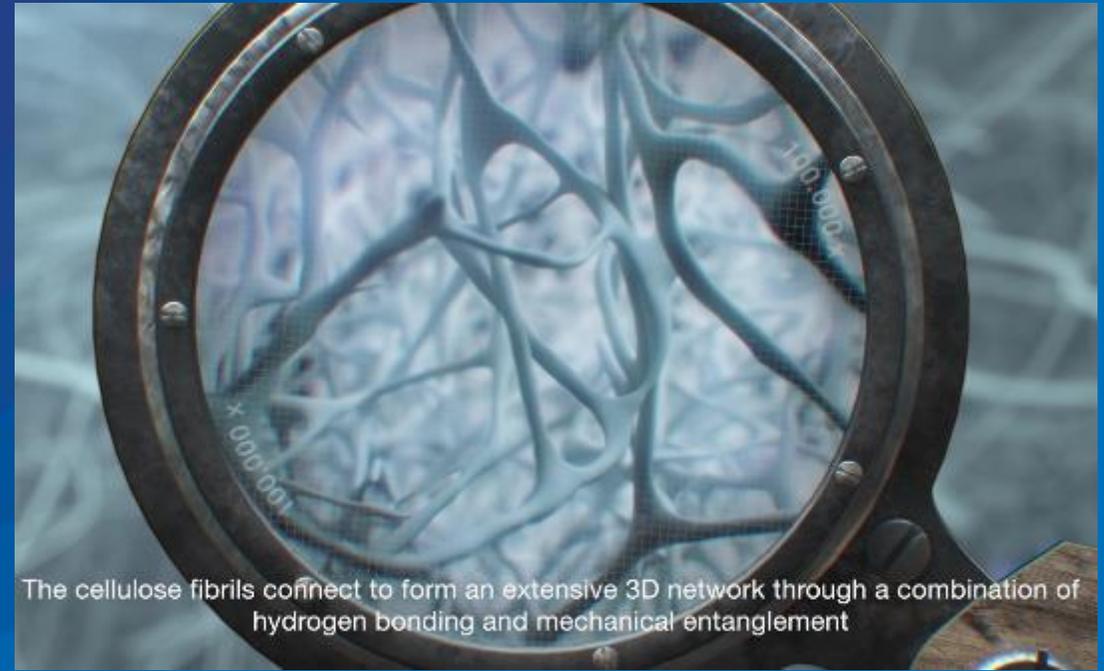
**Valida S**

**Step 1: Mechanical treatment**

**Step 2: Further Mechanical Treatment**

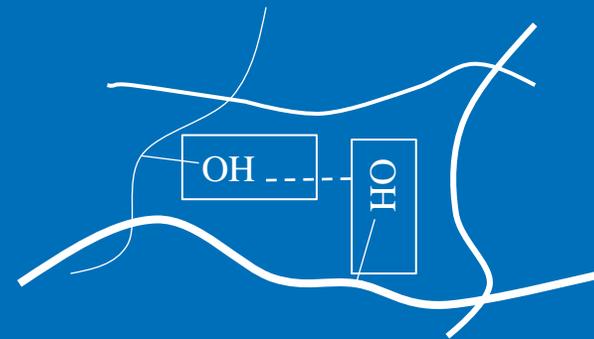
# Valida is Fibrillated Cellulose

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**Turn a singular fibre into a tree again.**

**Fibres form a 3D network that stabilizes formulations.**





Particles...

Water...

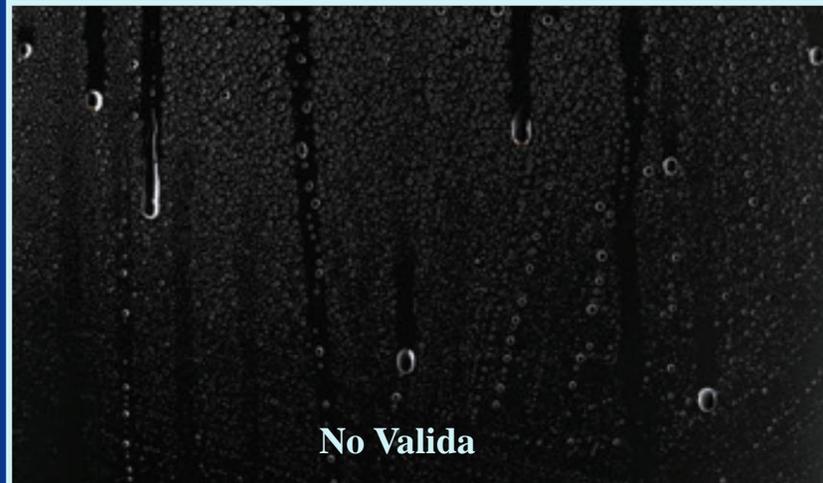
Valida...?

Stability!

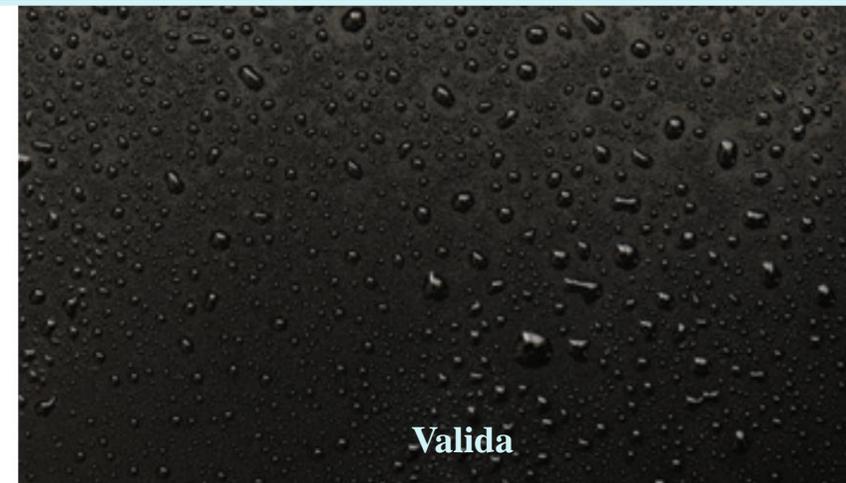
# Rheology Modification

# Sprayability & Vertical Cling

Valida – Frost protection, Easy to Spray, Biodegradable

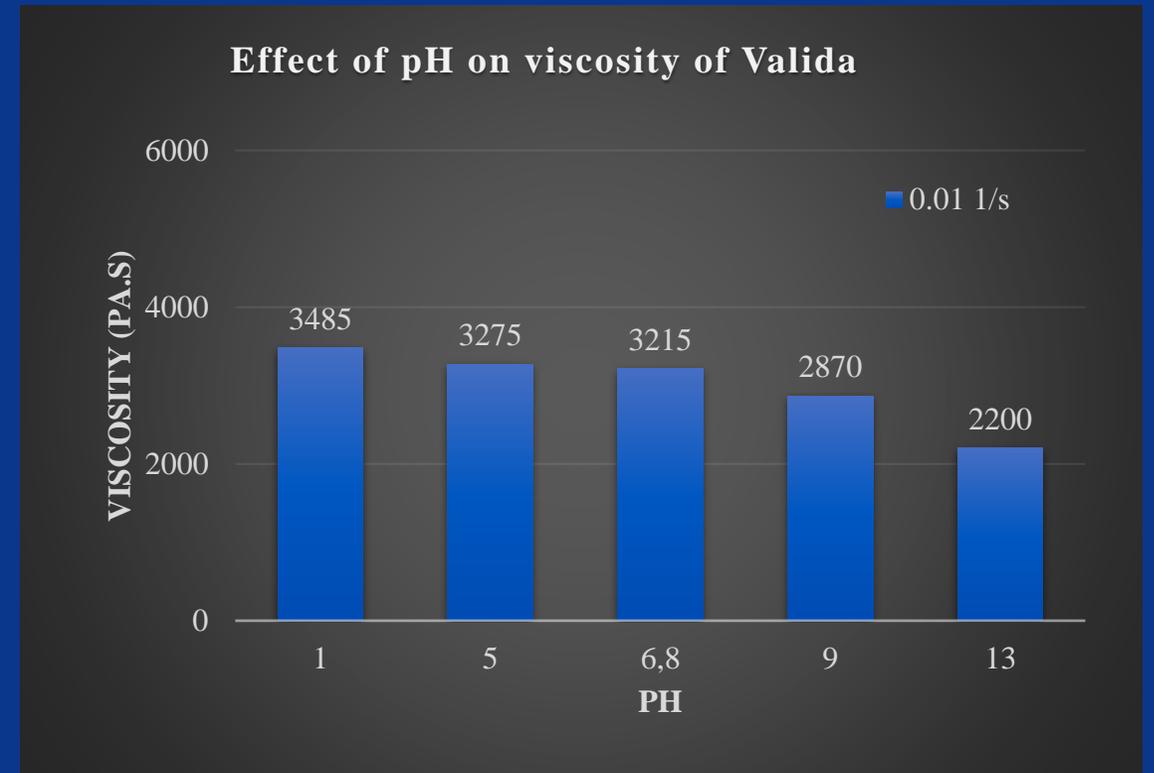
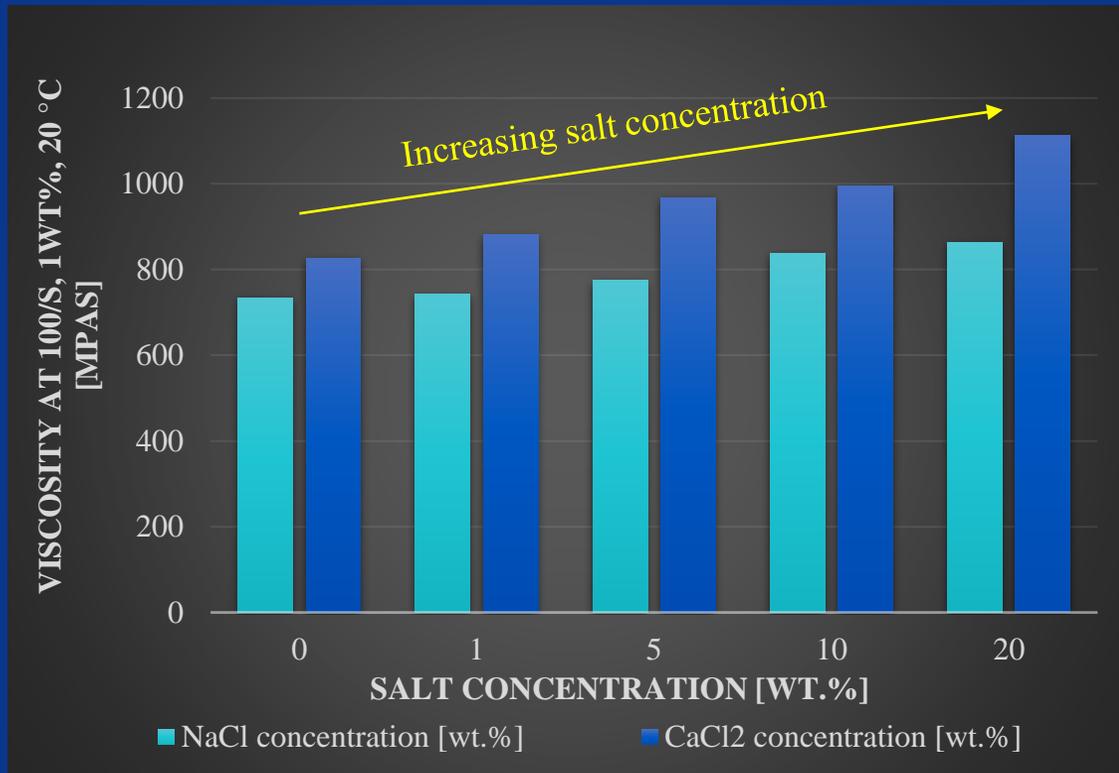


**No Valida**



**Valida**

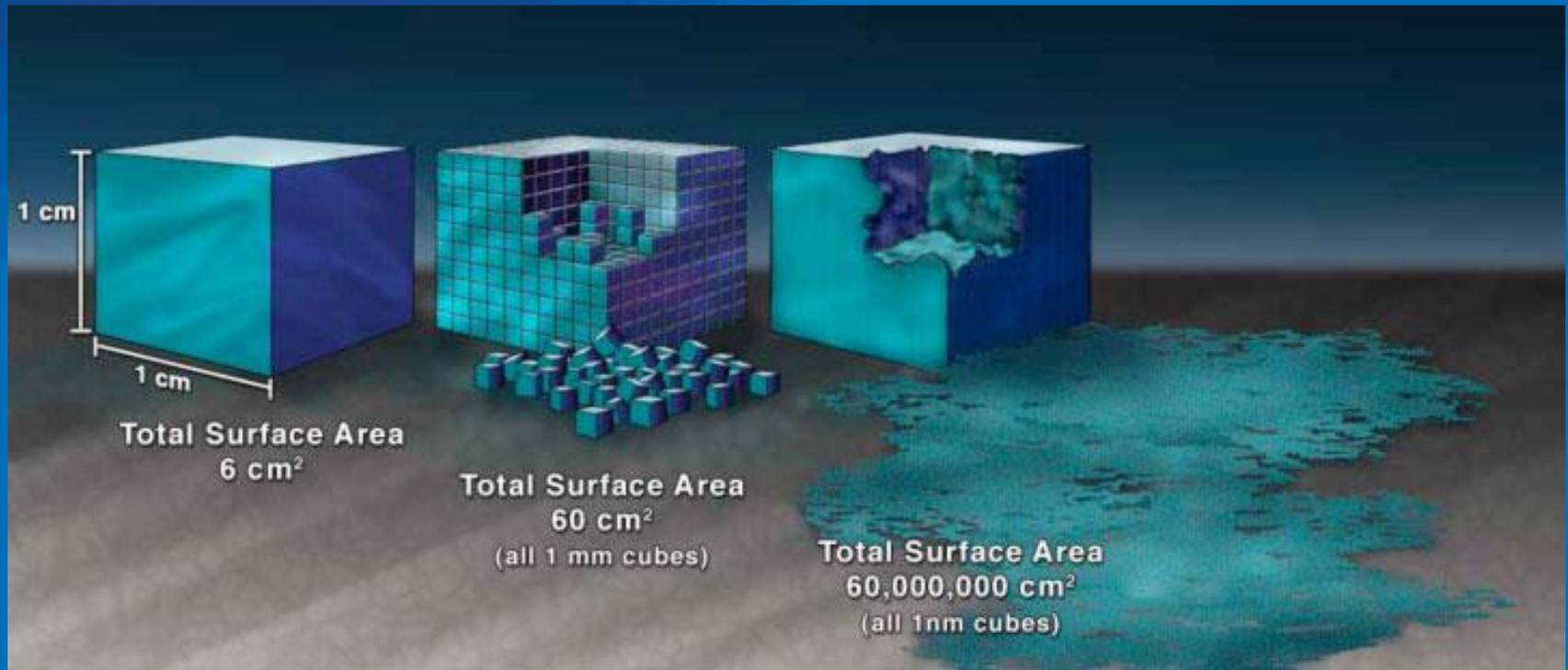
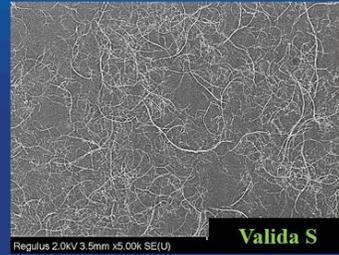
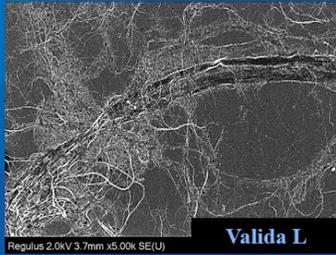
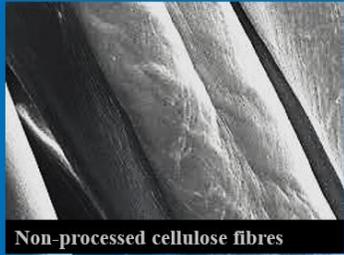
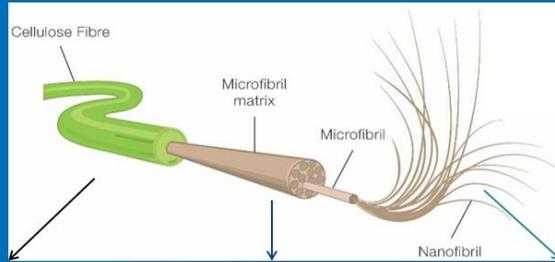
# Natural Cellulose = Robust Performance



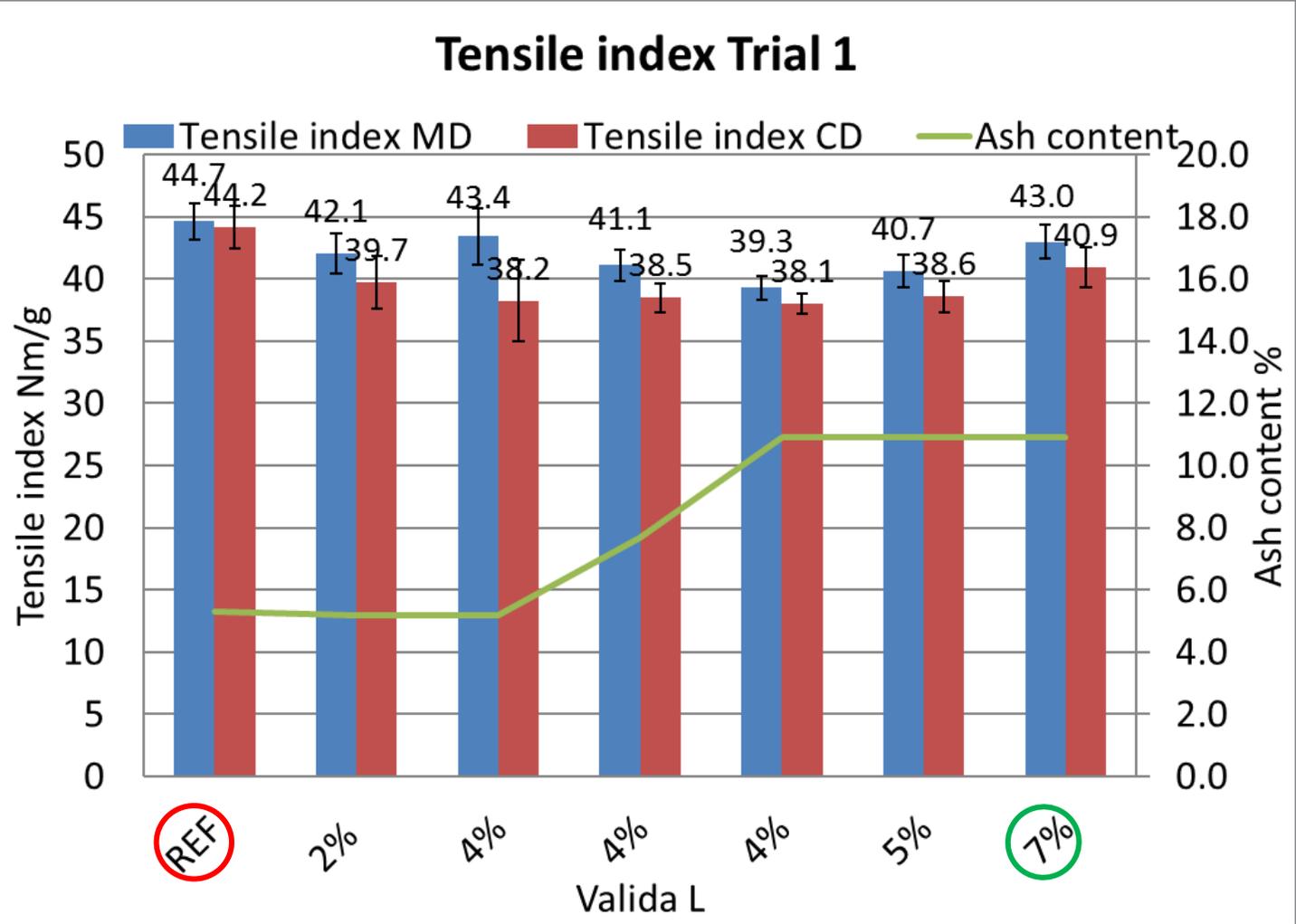
# Valida fibres

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Perfect for  
high load,  
Strong paper!



# Zoom out – Liquid Detergents



# Suboptimal Supply Chain





# Hard Plastic Waste & High Household Penetration

# Bioaccumulation Of Synthetics



Why not go  
to sheets?

# Efficient Supply chain





Eliminate  
Hard plastics,

Enter

Paper  
Packaging

Cellulose

is

Biodegradable!



In summary,



this is what I  
hope you learned.

Valida can be used as a

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*Biodegradable*

Solid detergent sheet



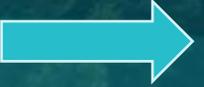
*Delivery Matrix*

That has the potential to

*Optimise Cradle to Grave  
Carbon footprint*



Thank You!

Questions? 



*“Creativity is intelligence having fun.”*

*- Albert Einstein*



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