

# What is Deakin doing?

Increasing Australia's fibre research capabilities.

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Director of the ARC Research Hub for Future Fibres

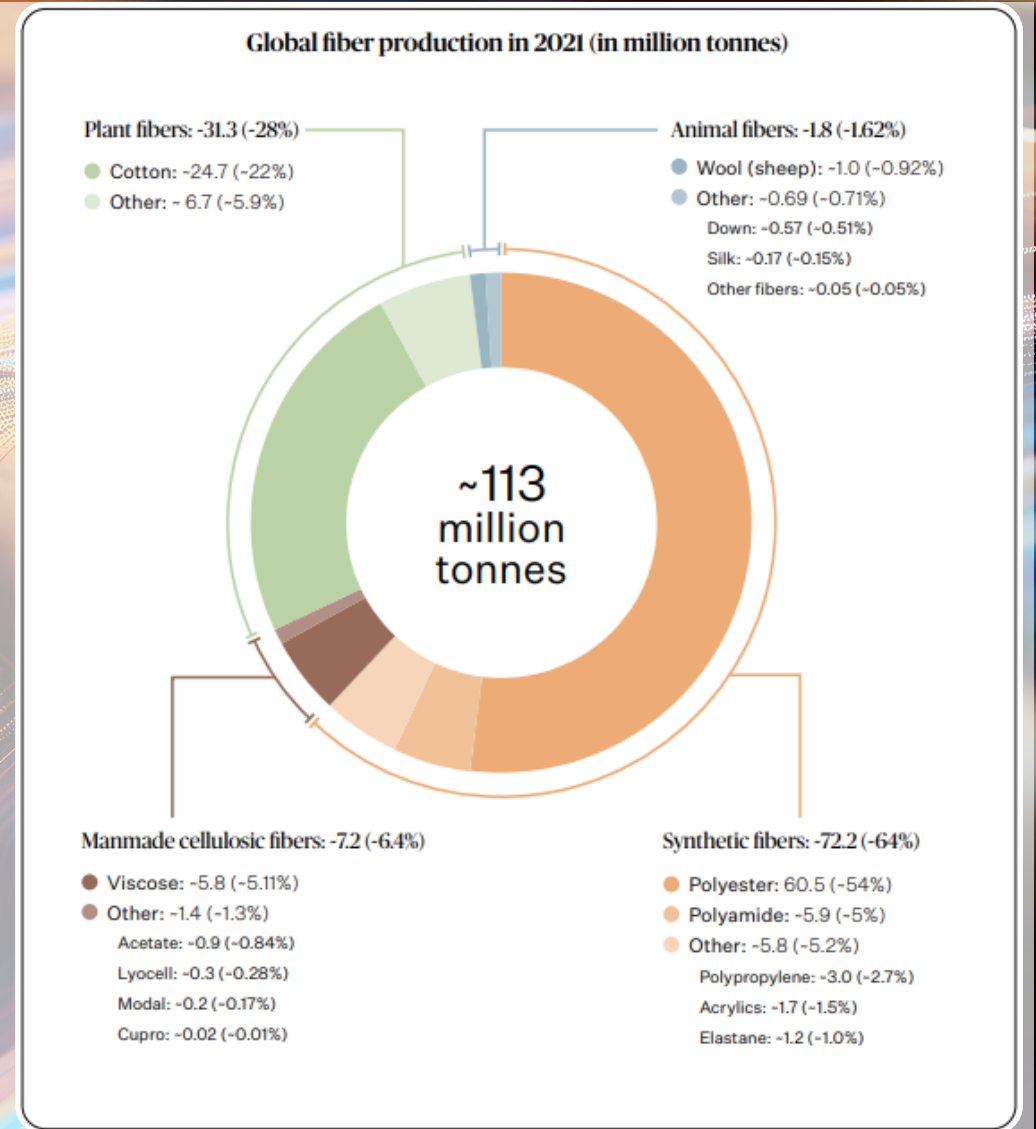
Deakin | Institute for Frontier Materials

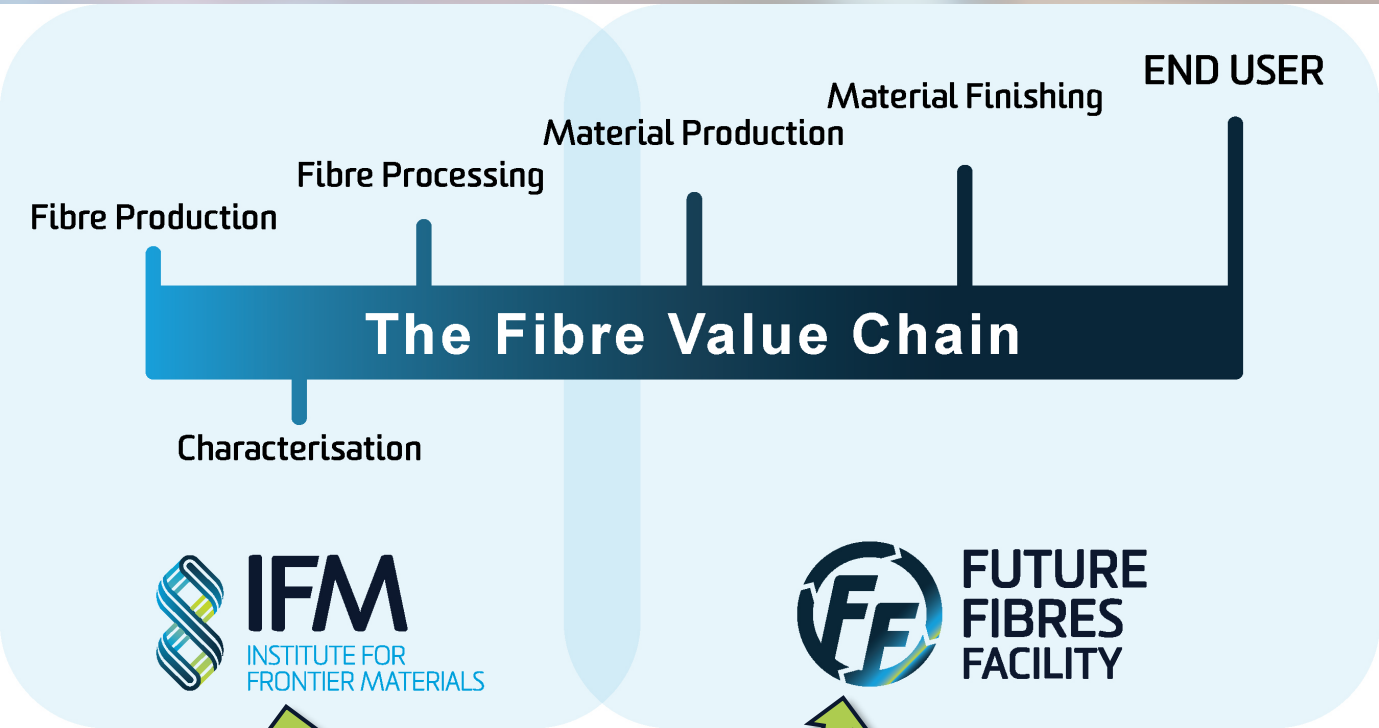
2025 Sustainable Fibres Symposium  
Sustainable design from micro to macro.



# Fibre sources

- Increase natural fibre production
- Consume less fibres
- Create new fibres
- Recycle fibres and polymers






**LAB to LABEL**

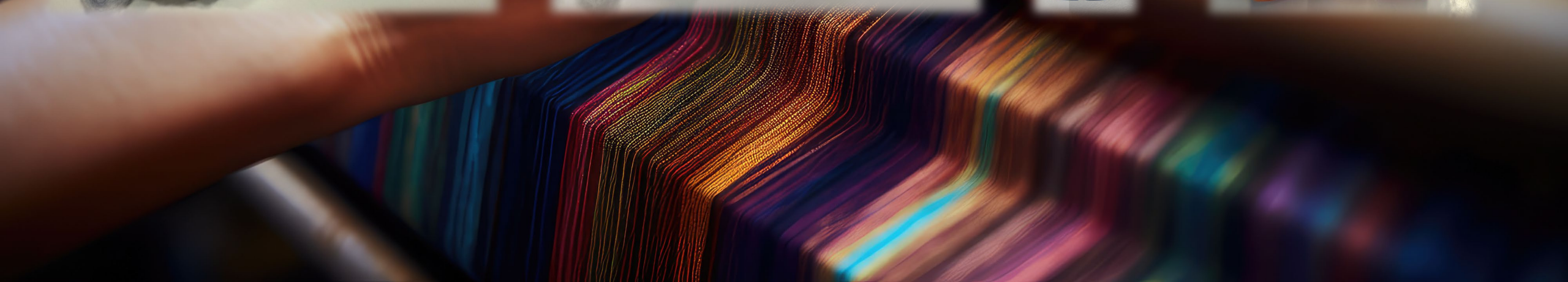


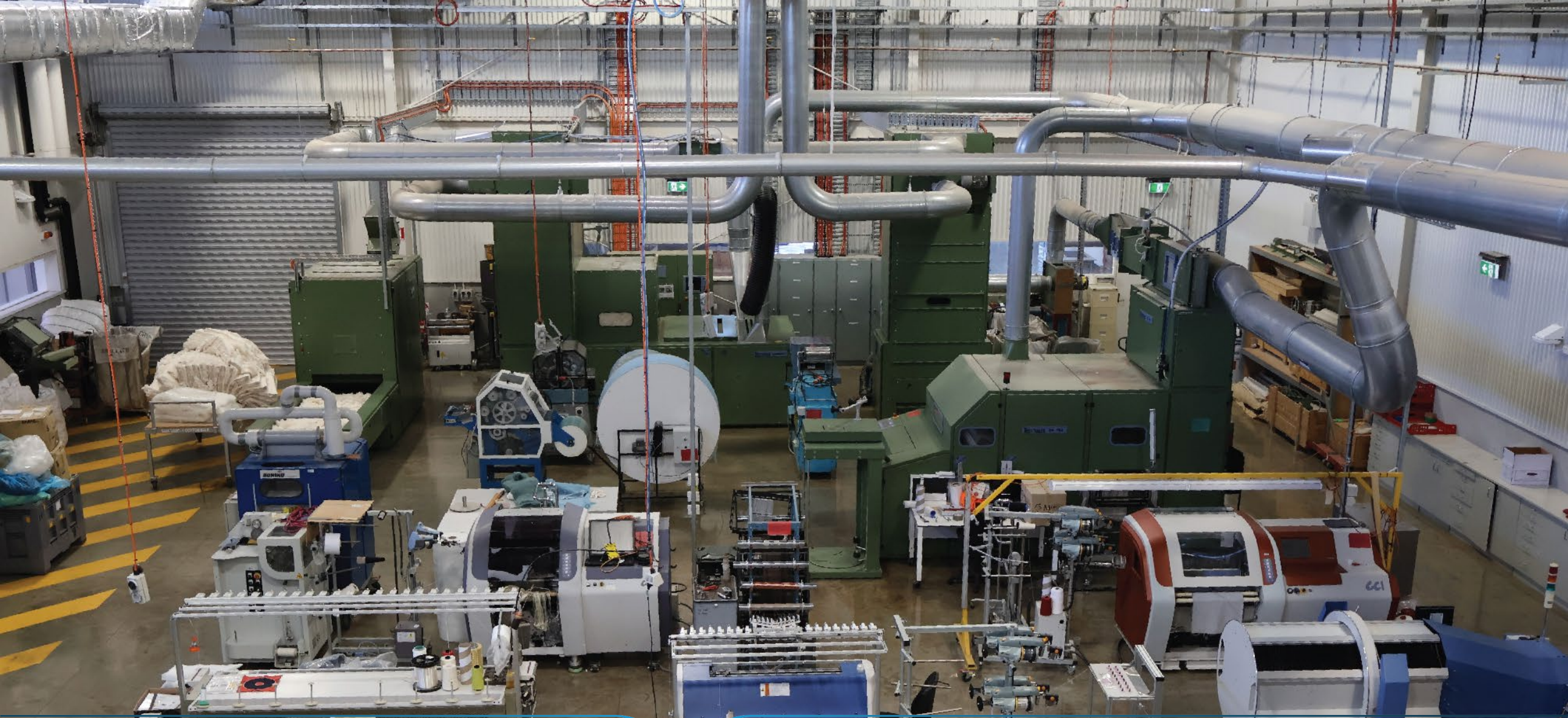
# Mechanical recycling

-  Recoline®  
sample machine
- Flag to fibre separation
- Single garment to 40kg/hr  
of recovered fibre



# Mechanical recycling





**FUTURE  
FIBRES  
GROUP**



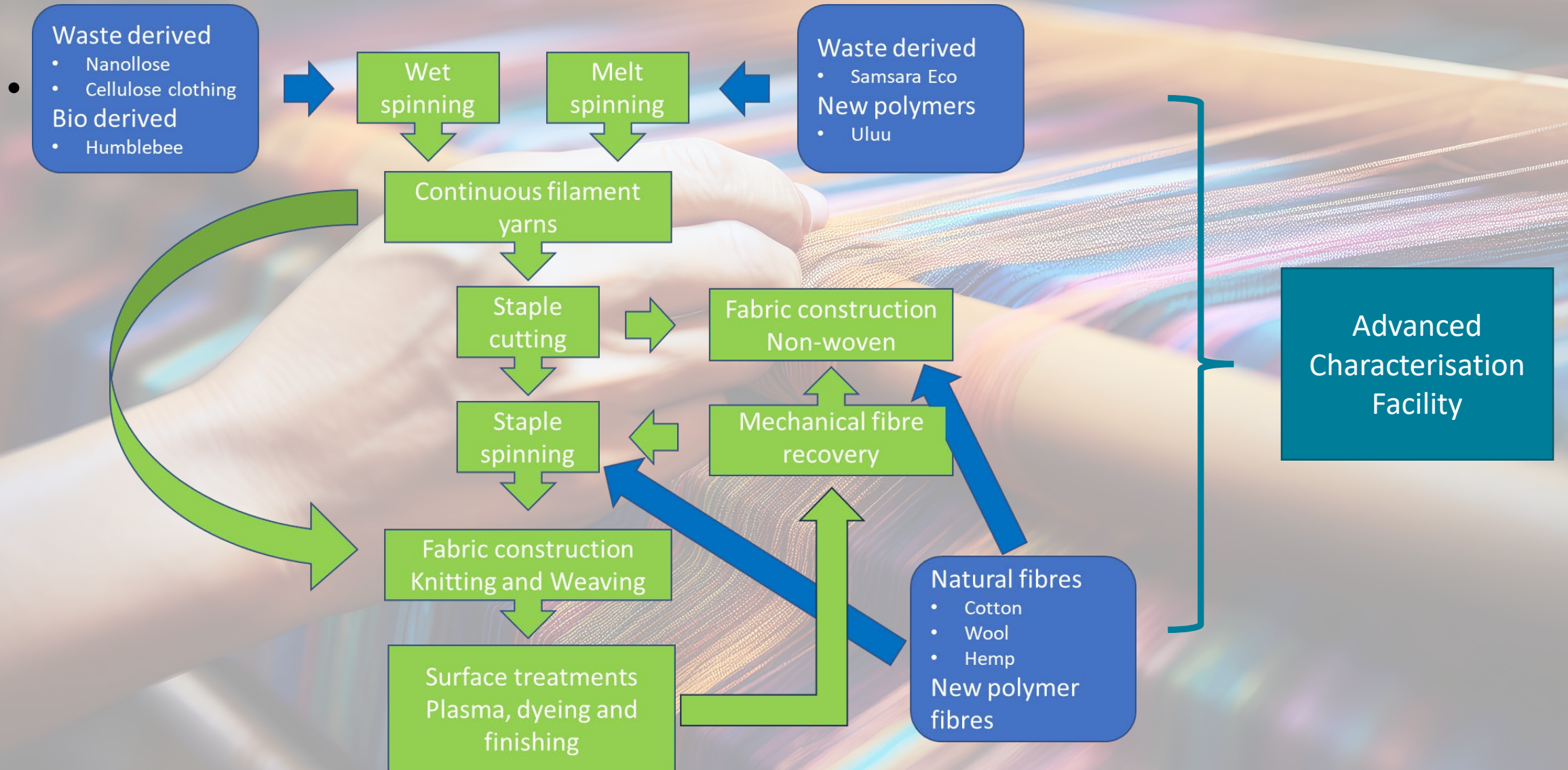
ARC Research Hub for  
**FUTURE  
FIBRES**

Fibre technologies that make a material difference.



**FUTURE  
FIBRES  
FACILITY**

# Capabilities



# Composting textiles as a solution



**Waste**

*Microorganisms*



**Compost**



Sustainably designed bra



Composting  
at 55°C



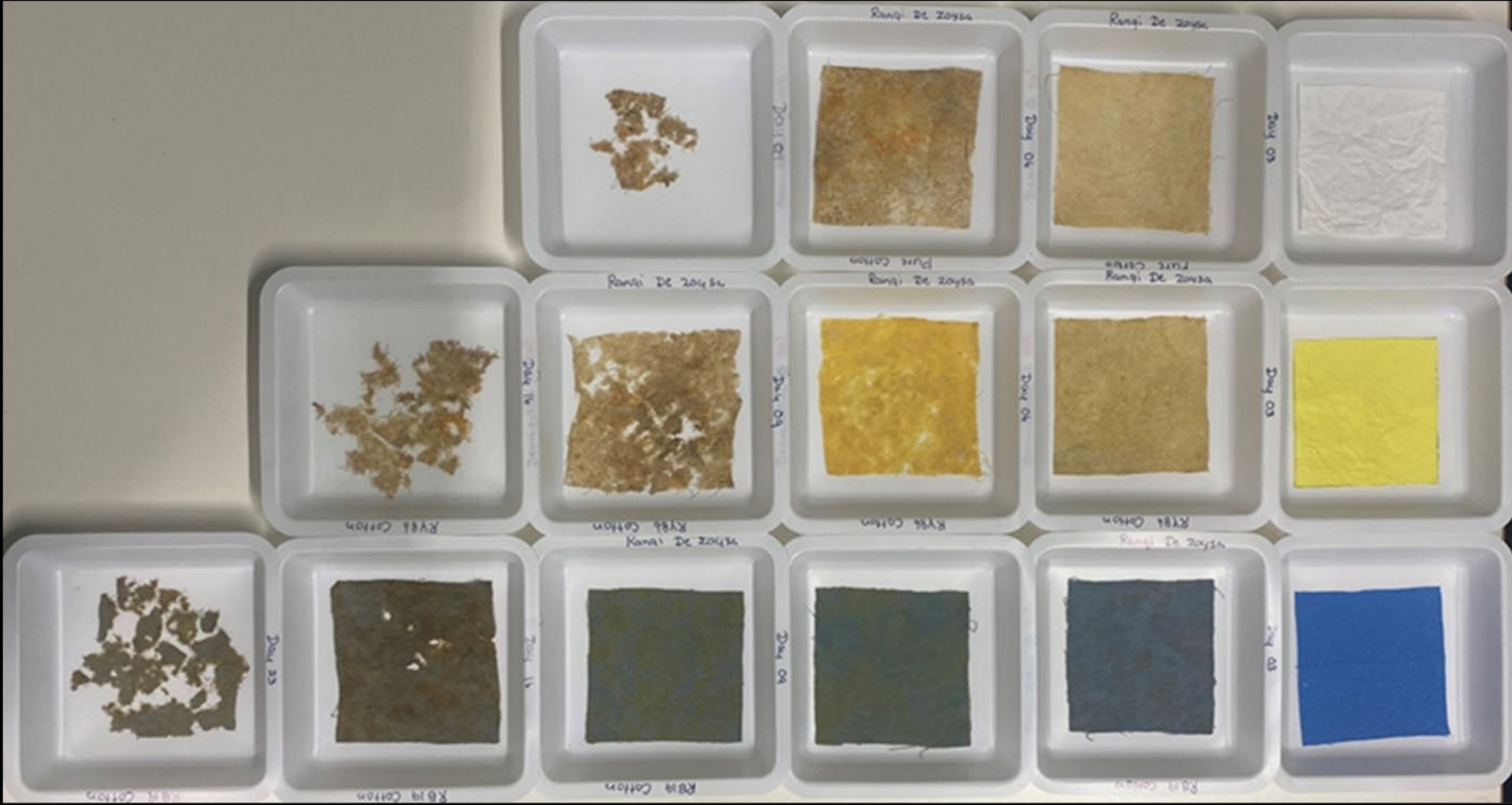
45 days in compost

<b>D 23</b>	<b>D 16</b>	<b>D 09</b>	<b>D 06</b>	<b>D 03</b>	<b>D 00</b>
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**Pure Cotton**

**Yellow Dye**

**Blue Dye**



# Questions

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