



## Developing a strong innovation ecosystem for circular economy with VTT's new Bioruukki Pilot Centre

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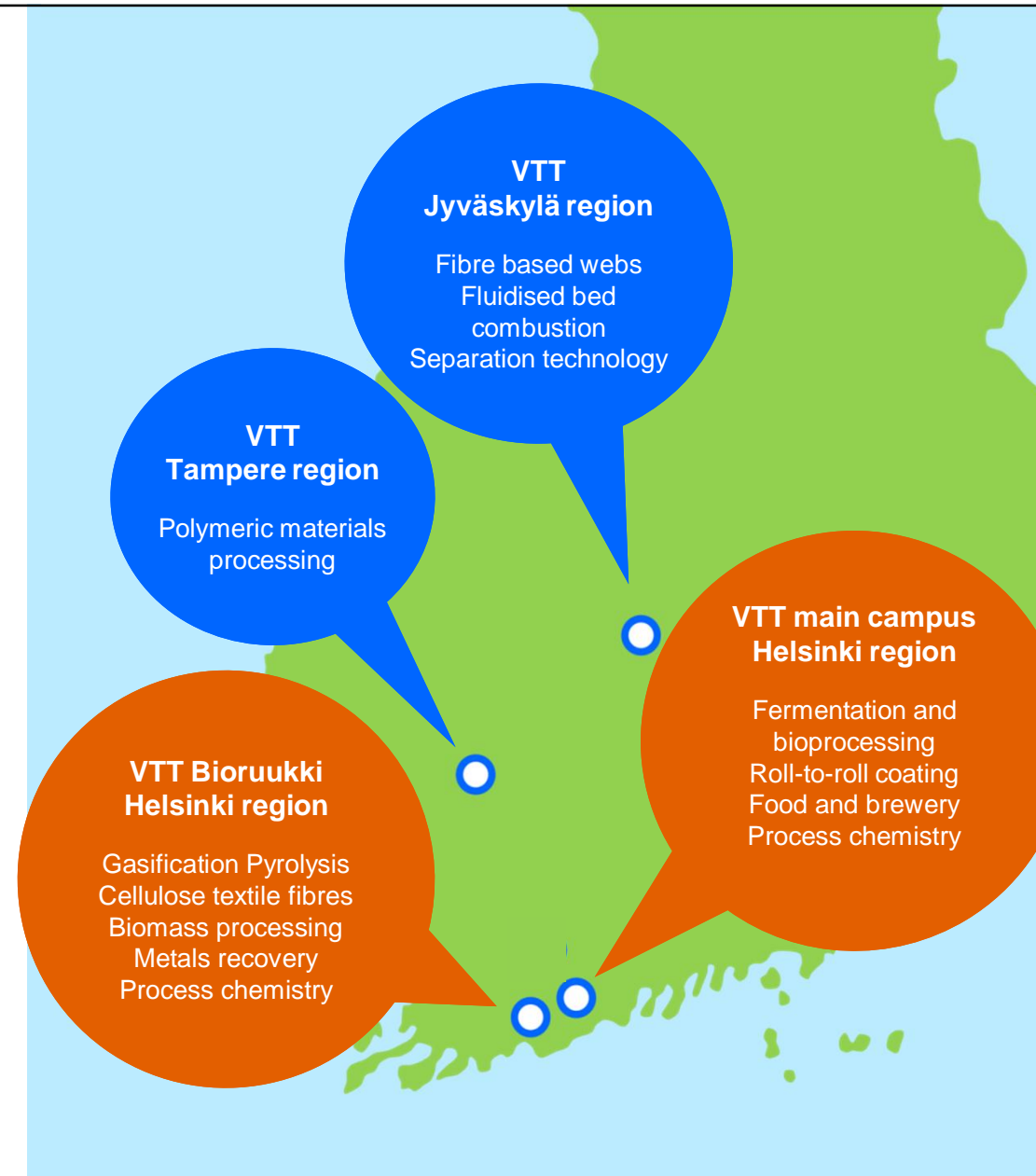


## From laboratory via piloting to markets

- **Piloting enables crossing the “valley of death” for commercialization.**
- **New process industry innovations often require extensive piloting.**
- **Open access Shared Pilot Facilities:**
  - Competence in piloting and scale-up
  - Time saving with ready-to-use facilities
  - Cost savings by sharing the investment and operation costs

# VTT pilot facilities in bio and circular economy

- Regional innovation centres with national, European and global impact.
- Helsinki region forms a strong circular economy knowledge hub by VTT and partners - “Hub for circularity”





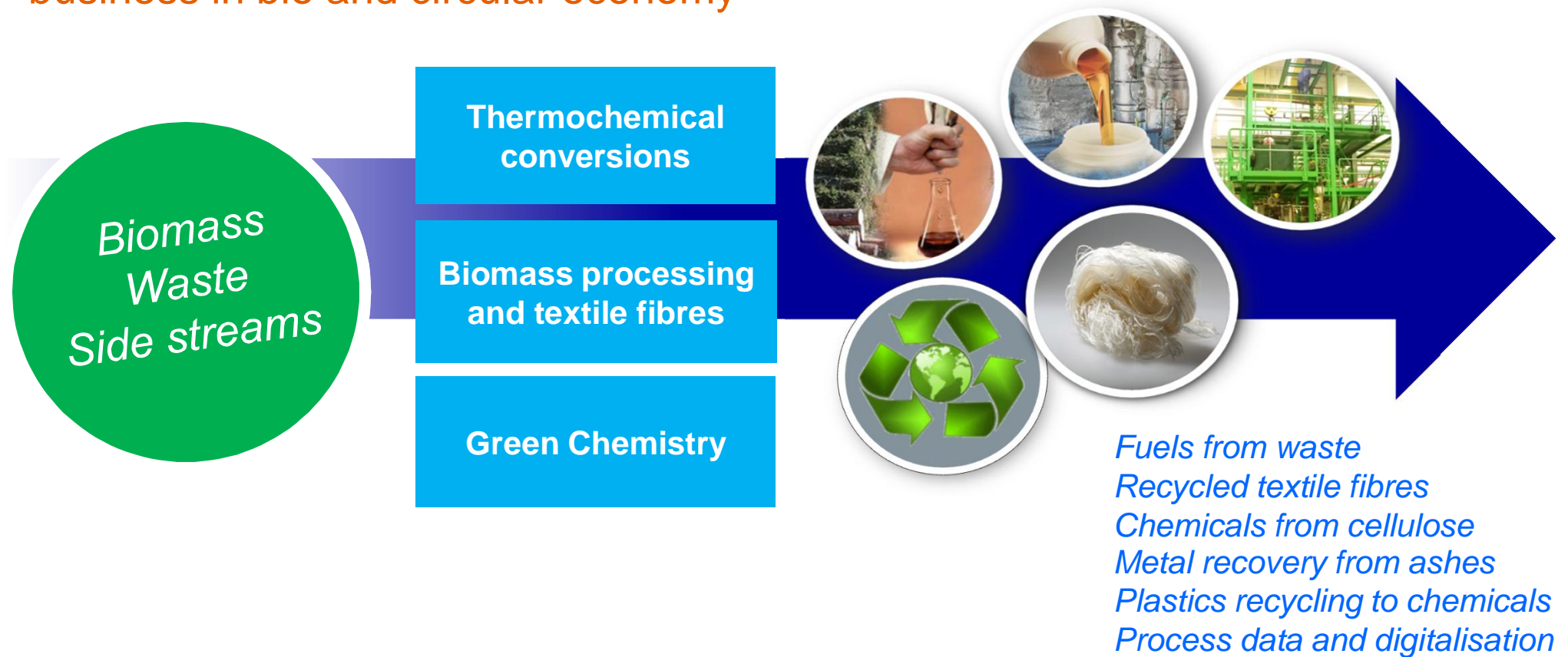
## Our innovation ecosystem partners

- Process industry
- Technology companies
- SMEs, Start-ups
- RTOs and universities
- Regions and cities
- European pilot networks

The logo for Neste, featuring the word "NESTE" in a bold, blue, sans-serif font.The logo for Fortum, featuring a green circular icon with a white dot inside, followed by the word "fortum" in a green, lowercase, sans-serif font.The logo for Valmet, featuring the word "Valmet" in a bold, black, sans-serif font, followed by a green and white geometric icon.The logo for Siemens, featuring the word "SIEMENS" in a bold, blue, sans-serif font.The logo for Chemigate, featuring the word "Chemigate" in a white, italicized, sans-serif font, set against a green rectangular background.The logo for The Infinited Fiber Company, featuring a stylized, black, interlocking loop icon, followed by the text "The Infinited Fiber Company®" in a black, sans-serif font.The logo for VTT, featuring the letters "VTT" in a bold, sans-serif font, with the "V" in orange and the "TT" in blue.The logo for Aalto University, featuring a large, bold, black "A" followed by a yellow question mark, with the text "Aalto University" in a smaller, black, sans-serif font below.The logo for Espoo ESBO, featuring a blue, stylized, circular icon, followed by the text "ESPOO ESBO" in a blue, sans-serif font.The logo for SmartPilots Interreg Europe, featuring the text "SmartPilots" in a bold, black, sans-serif font, with "Interreg Europe" in a smaller, blue, sans-serif font below, and a yellow geometric icon to the right.The logo for Pilots4U, featuring the text "Pilots4U" in a bold, sans-serif font, with "Pilots" in green and "4U" in blue, and a blue molecular structure icon to the left.

# VTT Bioruukki Pilot Centre

An integrated enabler to accelerate higher value business in bio and circular economy



## Demonstration of post-consumer textile waste recycling at VTT Bioruukki Pilot Centre

### Textile fibre recycling demonstrations

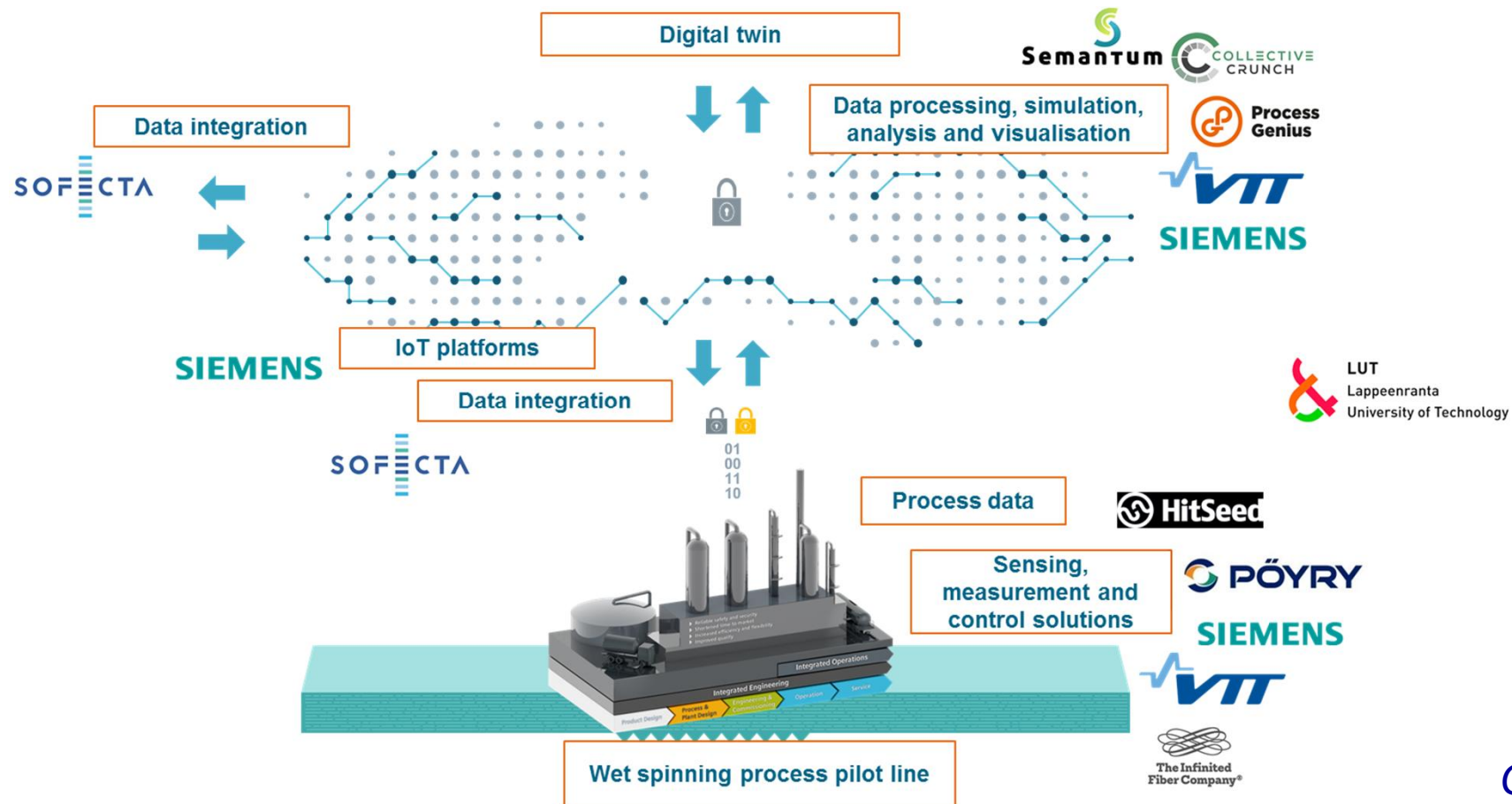
- Start-up company to scale-up.
- Process industry and fashion brands to commercialise.
- VTT Bioruukki provides the infra and expertise.

### Textile fibre spinning pilot line

- Recycling of post-consumer textile waste.
- The key process steps in the production chain:
  - raw material pre-treatment,
  - chemical modification and fibre spinning,
  - staple fibre post-treatment.

*Case example*

# Demonstration platform for new digital solutions for process industry – Digital Fibre initiative





# Challenges in developing Bioruukki Pilot ecosystem

Investment  
funding  
mechanisms  
need re-thinking

Innovation  
support is not  
structured to  
facilitate early  
piloting

Pan-European  
interregional  
coordination to  
develop  
Shared Pilot  
Facilities





**Thank you for your attention !**