Circular economy action plan
a regional dimension-

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Why circular economy in a region?

Motivations are identical to EU level:
- To decrease the consumption of pristine materials, for the environment
- To increase the local economy, i.e., jobs

Transition towards sustainable economy:
- Regional strengths
  - -->potential for business
Strengths in Central Finland

Availability of the biomass

- Forests, agriculture
- Also side-streams, inc. agro and municipal biowastes
- Wood based side streams
  - Woodchips
  - Bark
  - Lignine
- Biogas
- Also, added value products

Novel urban mining of WEEE

- Solutions from chemistry to collect metals from WEEE
  - Ag, Cu, Nd (in magnets)
  - Possibilities also for industry waste waters – low concentrations
- Decreases dependency from outside-EU exports
- On laboratory pilot level, high hopes to extend
### Strengths in Central Finland

#### Packing and Plastics
- R&D to replace plastics with renewable (and recyclable) materials
- Cellulose-based, high-quality and hygiene level packing materials for food industry, including transparent membranes
- Biodegradable and compostable plastics
- -> decreases microplastics

#### Textiles
- Novel cellulose-based materials to replace cotton and heavily chemicalized (old) alternatives
- Also, less water in production
- Textile fibres also from straw, recycled textiles and food waste
What we need?

Large scale solutions
• Industry, side streams and end products
• Construction sector

Innovations & courage
• Smart circular economy (digi) & design thinking
• New innovative thinking, and possibilities to demonstrate these innovations

Awareness-rising, on all levels
• Behavioural changes
• In C.F. household wastes 130-180kg per capita (2017)*:
  • 30% Biowaste
  • 30% Packing (incl. plastic, cardboard)
  • 8% Textile

*Municipal waste study 2017, CIRCWASTE
THANK YOU!