

Kymenlaakso Forest Cluster

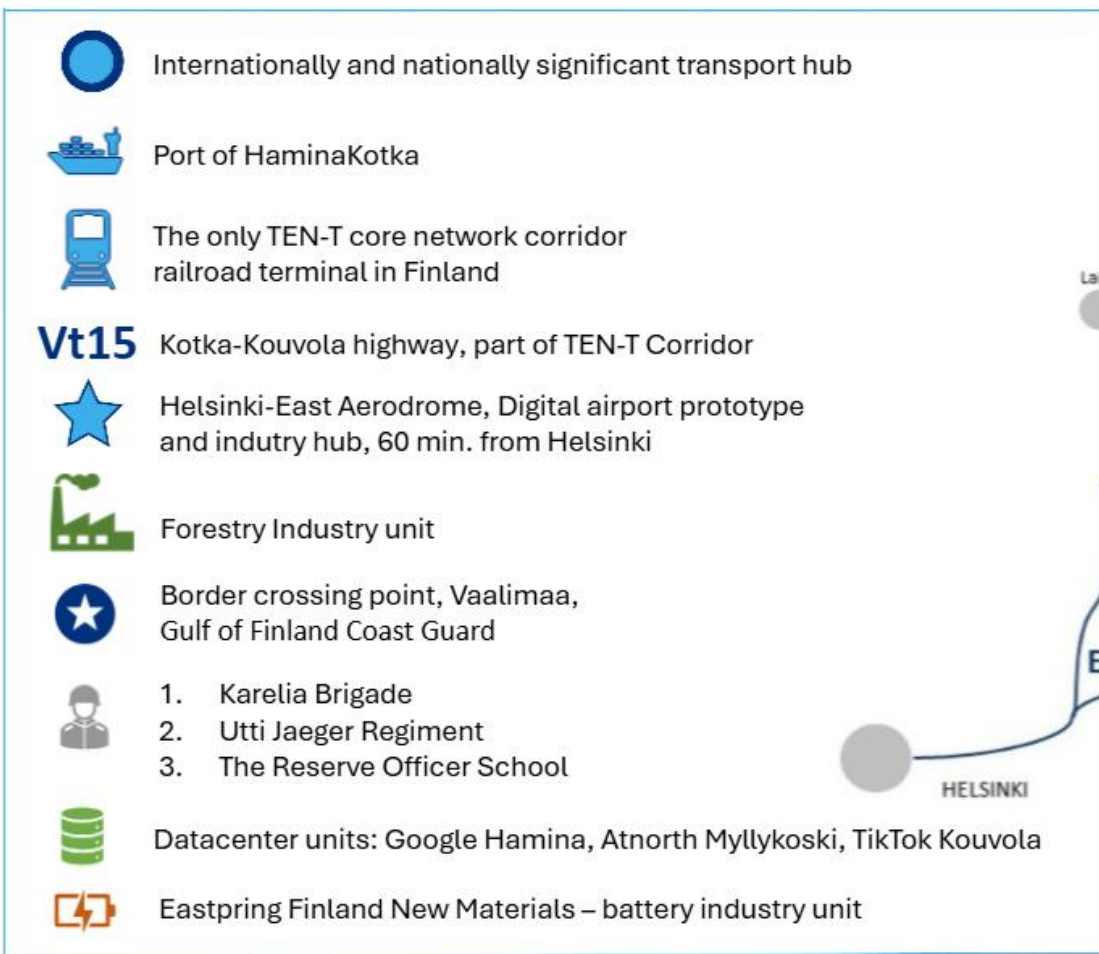
From structural economic change
to new circular bioeconomy business models

30.9.2026

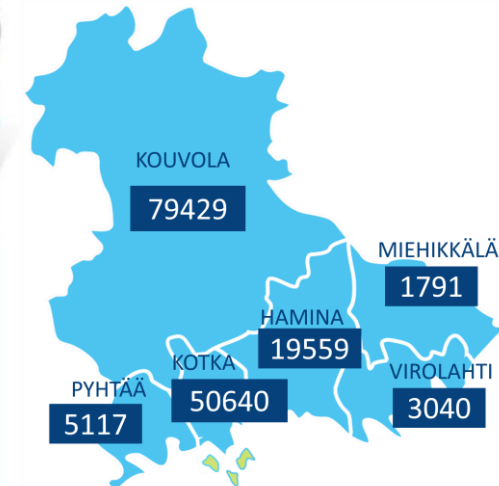
Regional Mayor Anna-Riikka Karhunen



Kymenlaakso Region



Inhabitants and municipalities



Forests in Kymenlaakso

- Forests cover approximately 309,000 hectares in Kymenlaakso – around 68% of the region's land area.
 - 3,68 % of forest land is excluded from commercial forestry
 - More than half of forests are under 40 years old
- Private people (15 550 persons) and death estates own 72 % of managed forest land
- Enterprises own 11,65 %
 - → Average forest-owner in Kymenlaakso is 62 years old and owns 7,1 ha of forest
- In order to enhance biodiversity and carbon storage, higher value creation from forestry is needed. This can be done through circularity and R&D of solutions for renewable materials.



Why our region had to renew?

1. Long-term industrial restructuring

- Structural decline in paper demand
- - Mill closures and consolidation
 - Need to retain skills, infrastructure and industrial sites

2. Geopolitical and trade shock

- Russia's war against Ukraine disrupted established eastern trade patterns
 - Russian wood imports ended
 - Logistics and sourcing patterns had to be reorganized



The transition

1. Rural resource base

- Forests
- Development of carbon and nature credit markets
- Residues and sidestreams
- Agricultural biomass

2. Industrial assets

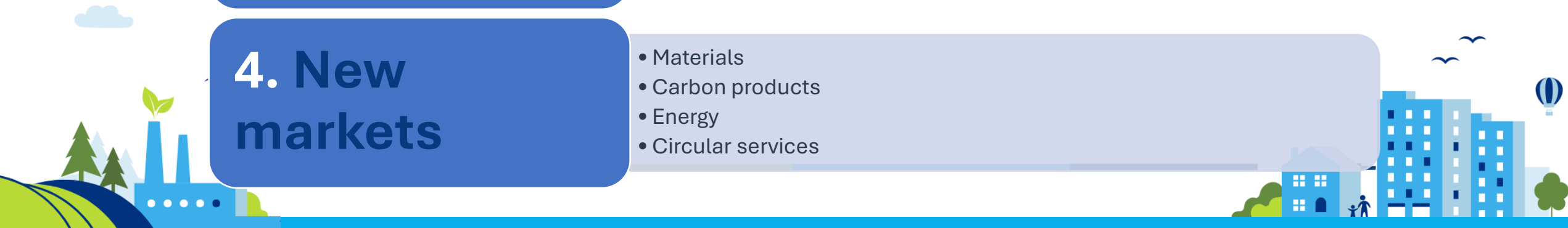
- Existing sites
- Energy systems
- Logistics
- Process competence

3. Applied RDI

- Piloting
- Testing
- Demonstration capacity

4. New markets

- Materials
- Carbon products
- Energy
- Circular services



Large-scale renewal: side streams become strategic materials

UPM Kymi

- **Integrated biorefining**
- Pulp, paper and bioenergy share raw materials, energy and side streams in Kouvola

KotkaMills

- Specialises in virgin fibre cartonboard for food service and other demanding applications, as well as saturating kraft paper for high pressure laminates.
- The virgin fibre board can replace plastic in the end use applications.
- A production side stream is becoming a valuable resource for agriculture. With Soilfood, fibre sludge is refined into fertilisers and soil improvement fibres

Arctic Sisu

- The e-methane plant would use biogenic carbon dioxide captured from the flue gases of Kotkamills' pulp mill as a feedstock.
- E-methane is produced by combining biogenic carbon dioxide with hydrogen produced using renewable electricity.
- This will be the first project in Europe to use carbon dioxide from pulp production as a feedstock for e-methane production.



Small-scale renewal: Innovation is made accessible to SMEs and rural actors

Fintoil

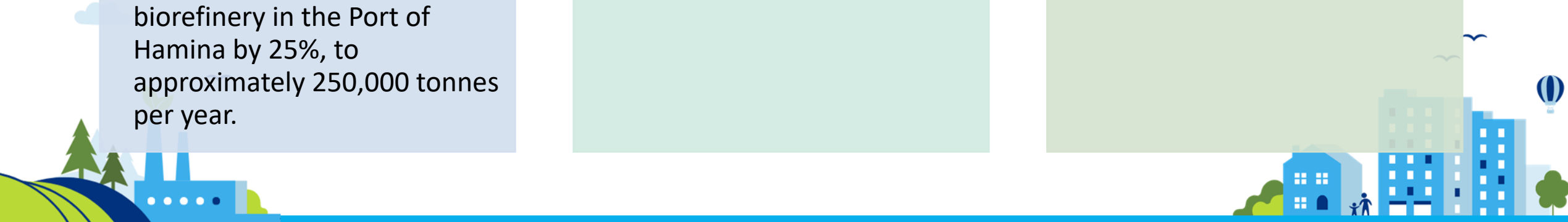
- Main product in Hamina is a feedstock for biodiesel, refined from crude tall oil. It is exported from Hamina to oil refineries across the EU. The EU's new climate regulations are driving investments in Finland. Fintoil is increasing production at its biorefinery in the Port of Hamina by 25%, to approximately 250,000 tonnes per year.

BioSampo — applied RDI platform

- Anjala, Kouvola: practical piloting around
 - biochar
 - pyrolysis
 - biomass side streams.

Why it matters for rural areas

- The rural opportunity is not only biomass production — it is participation across the value chain
- Smaller actors can participate in value creation without owning capital-intensive industrial infrastructure



The bottlenecks are systemic — so policy must be systemic

1. Scale-up gap

- Pilot success does not automatically finance first-of-a-kind industrial deployment.

2. SME capacity gap

- Small firms need shared infrastructure, expertise and patient capital.

3. Market gap

- New bio-based products need standards, reference customers and demand creation.

4. Coordination gap

- Rural, industrial, RDI and funding actors often operate in separate silos.

5. Skills gap

- Transition requires process, digital, circularity and commercialisation skills.



Policy recommendations for the EU programming period 2028–2034

1. Place-based transition funding

- Recognise long-term industrial restructuring and geopolitical shocks — not only individual plant closures.

2. From innovation to industrial scale-up

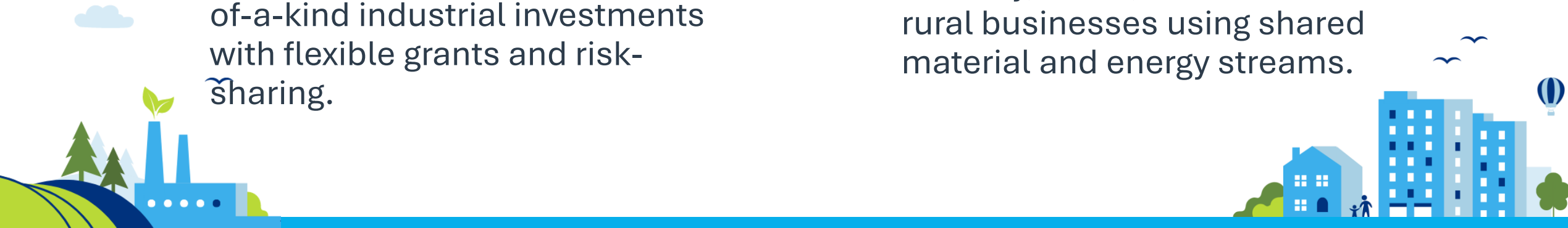
- Bridge RDI, demonstration and first-of-a-kind industrial investments with flexible grants and risk-sharing.

3. Stronger rural value chains

- Keep more value close to renewable resources through SMEs, processing, services, logistics and new business models.

4. Industrial symbiosis & ecosystems

- Enable integrated support for large industry, SMEs, research actors and rural businesses using shared material and energy streams.



Thank you!

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