

ECO3

**CIRCULAR- AND BIOECONOMY BUSINESS
PLATFORM IN NOKIA, FINLAND**



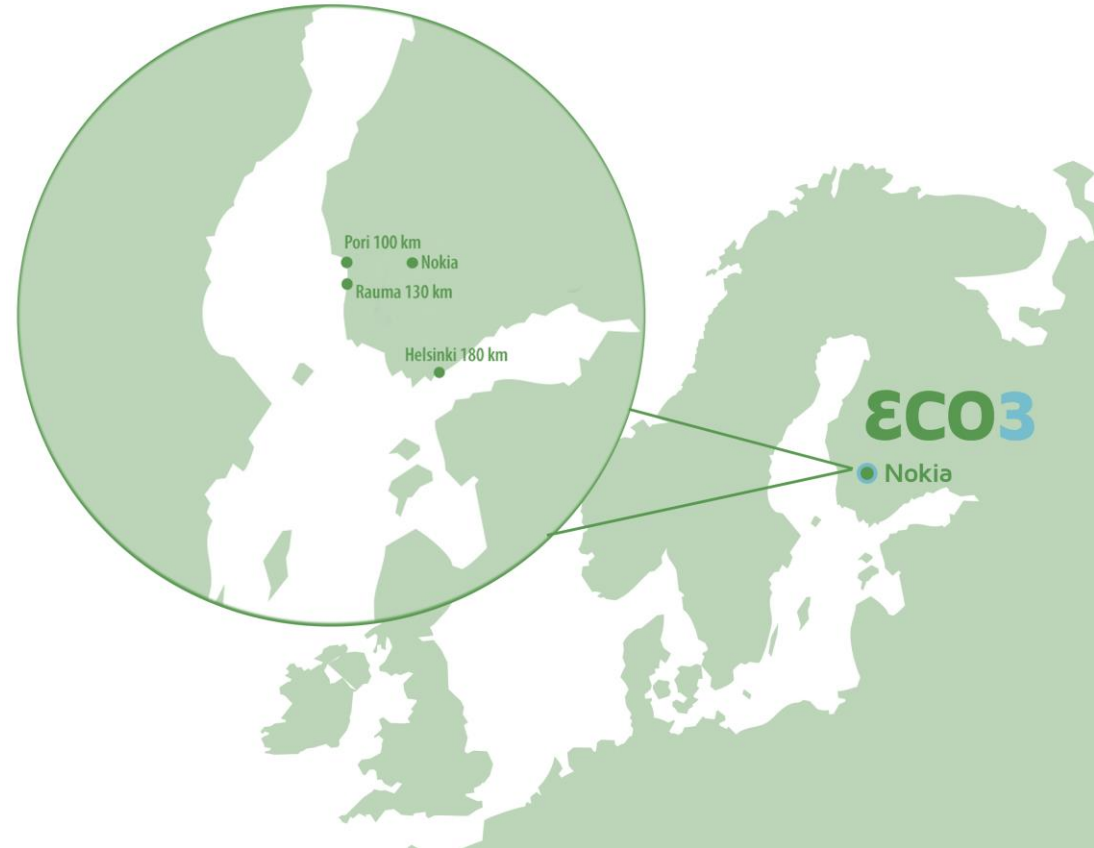
ΕCO3

GENERAL INFORMATION

ECO3 is in the heart of Finland

City of Nokia and Tampere Region

- Tampere Region has a population of 505,000 which makes it second largest region in Finland just after Helsinki capital region.
- 31 000 places of business.
- 2nd largest airport in the country.
- Up to 15 % of Finland's national R&D budget is spent in Tampere.
- Close to the large Finnish ports on the Gulf of Botnia.
- For companies the key reasons to operate in Tampere Region are good availability of employees, central location and the close connections to universities.



ECO3 is built up in phases



Facts

- An innovative, industrial-scale, multidisciplinary bio- and circular economy business area, ECO3, is being built on the excellently located Kolmenkulma Eco-Industrial Park in Nokia.
- Phase 1: 90 hectares
- Phase 2: 50 hectares
- ECO3 competence centre works simultaneously as a demonstration and pilot environment.

How do we operate?



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Verte Ltd.

ECO3 platform company

- Matchmaking
- Setting up business and concepts in national and international level
- Owned by the city of Nokia

ECO3 Consortium





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CONCEPT- ROAD MAP-SUCCESS

The background features a vibrant green bokeh effect with a network of white lines and nodes. A thin, vertical plant stem with small leaves is visible on the left side. The text 'ΕΣΟ3' is centered in the upper half of the image.

ΕΣΟ3

CONCEPT



ECO3 CONCEPT

- **New creative ecosystem which exceeds traditional sector boundaries**
- **Public companies role:**
 - Enabler - platform for private investments, companies and demonstrations
 - Creator of preconditions - markets and incentives
- **ECO3 Road map**

The background features a vibrant green field of plants, possibly alfalfa, with a white network overlay of dots and lines. Two horizontal semi-transparent white bars are positioned behind the text.

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ROAD MAP

ECO3 –ROAD MAP

Key drivers:

- Finnish road map to circular economy
- Pirkanmaa regions road map to circular economy

The ECO3 road map actions have been divided into

- Actions related to administrative requirements and policy actions – PPP
 - Innovative procurements
 - City of Nokia´s strategy: Ecological Nokia
- Key focus area projects
- Focus area pilots

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ECO3-Roadmap and spearheads

- Nutrient cycle
- Wood-based bio-economy and circular economy
- Energy and fuel from bio- and circular economies
- Technical cycles
 - Industrial by-products
 - Minerals
 - Metals
 - Plastics and rubber
- Digitalization - Smart ECO3



The background features a soft-focus image of green plants, possibly wheat or barley, with a white network of lines and dots overlaid, suggesting a digital or scientific theme. The overall color palette is dominated by various shades of green.

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**ONE FUTURE CONCEPT- JUST FOR
TASTE**

New type of plastic recycling concept in the ECO3 business park

Customer: City of Nokia

CHALLENGE

Based on the five-step **waste hierarchy** recycling and reuse of waste plastic material is desired over energy recovery. The European target for recycling rate by 2025 is 55%*. Side streams from multiple sources are not efficiently enough utilized as a potential raw material for new applications as current rate e.g. in Finland is 40%. New sustainable and economically attractive options are urgently needed.

SOLUTION

- Scientific approach to quick scale-up of emerging technologies for upcycling of waste to value added products
- Plant concept created by VTT, allowing the planning of business operations on an industrial scale.

BENEFIT

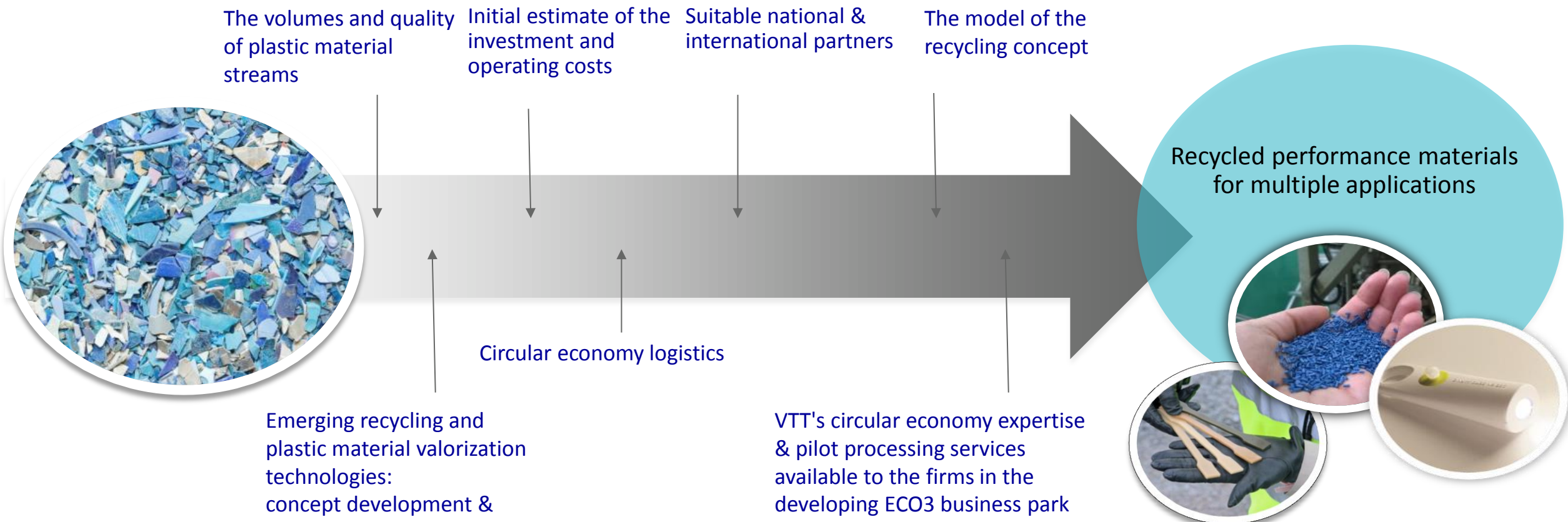
- Holistic approach enables development of best overall ecosystems connecting different waste streams, actors and technologies for jointly created applications, services and jobs within circular economy
- Enabling sustainable use of waste as raw material and reaching ambitious recycling targets



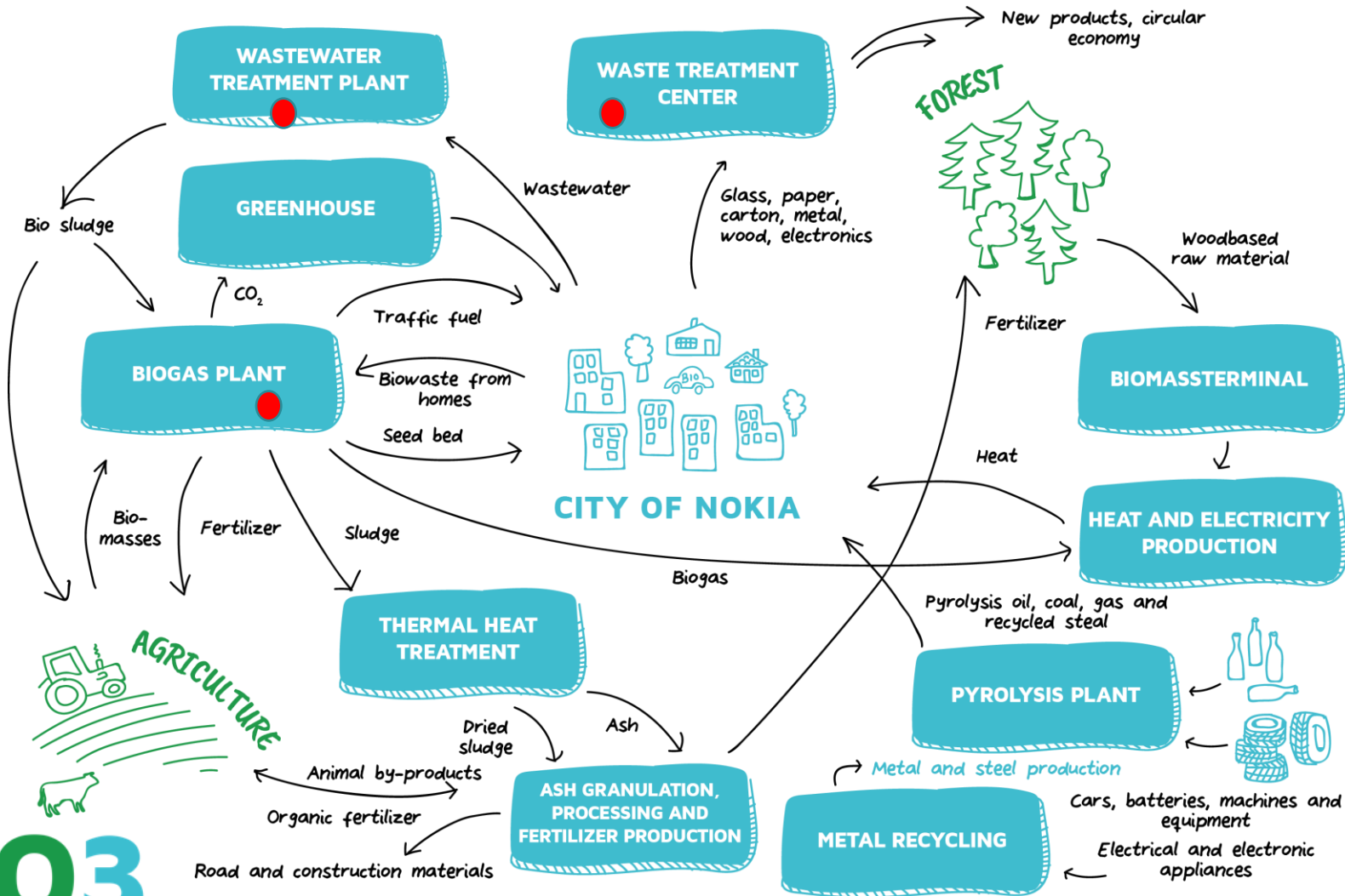
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New type of plastic recycling concept in the ECO3 business park: circular economy solutions combined with VTT's materials expertise



ECO3 CONCEPT-ECOSYSTEM



 Public owned company

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ESCO3

SUCCESS

ECO3 FACTS

- Industrial scale investments for ECO3 business area around 60 M€ (spring 2018).
- City of Nokia`s investments for the area around 30 M€ (2016-2019).
- More than 100 new jobs will be created between 2016 and spring 2018.





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Thank You!
www.eco3.fi/en