TAMPERE

COUNCIL OF TAMPERE REGION

Johanna Alakerttula
Council of Tampere Region

Tampere Region – high knowledge and technology

- Tampere Region has a population of 509,000 which makes it the **second largest region** in Finland just after Helsinki capital region
- The leading manufacturing industries in the region are mining construction and mobile machinery but also many other areas like food industry, packaging materials, mechanical engineering, energy and cleantech are represented
- For companies the key reasons to operate in Tampere Region are good availability of skilled employees, ideal geographical location and the close connections to universities
- **Nokia smartphone was born there in 1996**
- **Over 150 years of manufacturing industry heritage**

Picture: https://investtampere.fi/

MOBILE WORKING MACHINES

John Deere
Agco Power
Kalmar
Cargotec
Avant Techno

GLOBAL TECHNOLOGY COMPANIES

Valmet
Metso
ABB
Sandvik
Andritz

FAMOUS FOR PACKAGING MATERIALS

Metsä Board
Amerplast
Plastiroll
UPM Raflatac

ICT & TELECOM

Nokia
Intel
Huawei
Tieto

Low carbon circular economy

FINNISH GOVERNMENT

Government program's goal is to bring the Finnish economy onto a path of sustainable growth and higher employment

THIS IS HOW WE CREATE A **Circular economy**

The Finnish roadmap to Circular Economy published in 2016

1. SKILLS
2. PLATFORMS
3. CIRCULAR BUSINESS

Pirkanmaa's smart specialization

DEVELOPMENT OF A CIRCULAR ECONOMY

SMART TAMPERE

Smart industry, health, education, know-how

Skills: Education and R&D

Circular economy teaching for all levels of education

In order to create a circular economy society, we need a new kind of expertise, co-operation, new kind of thinking and new designing, operational, management and recycling skills.

Tampere 3 altogether 114 CE related courses. In addition TUT will launch a new study module on circular economy in 2018 and it will start to offer new open and free CE studies to SMEs.

National effort of 11 universities, 14 universities of applied sciences and 12 vocational colleges.

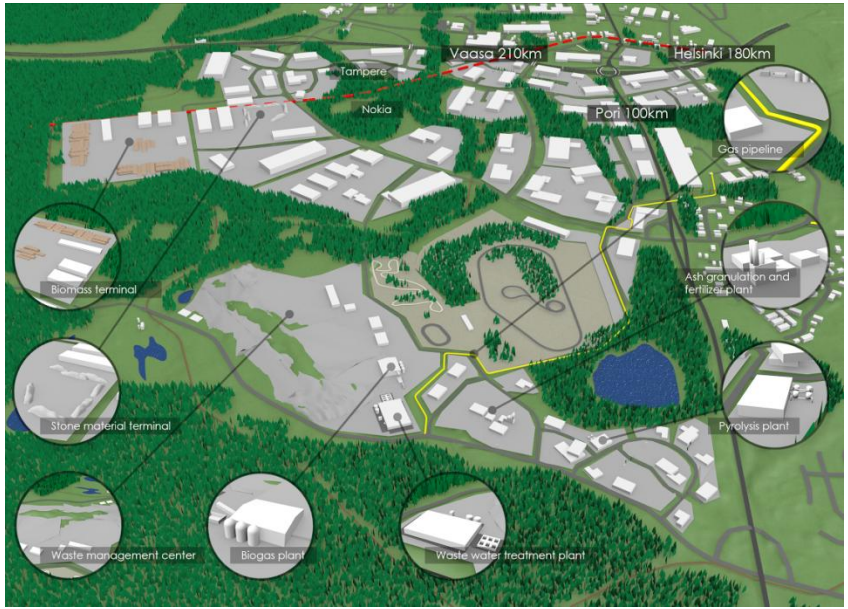
Circular economy and R&D

Capturing the emerging benefits requires reimagining business from a systemic perspective.

Top 3 research institutes (TUT, VTT, LUKE) are located in Tampere and they all have multible research areas like business models, nutrient recycling, construction and technology commercialization.

More than 100 specialists at VTT are developing biobased material solutions. R&D extends to natural and man-made fibres, nanocellusose, biopolymers, composite and foam technologies.

Platforms and ecosystems



ECO3

- **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.
- 600 hectares
- Essential service investments for the area currently around 60M EUR.
- ECO3 competence centre works simultaneously as a **demonstration and pilot environment.**
- **Includes companies in following sectors: nutrient cycles, wood, energy and material cycles**

Circular business

Manufacturing industry

Designing – maintainance – repairing – reusing – leasing – remanufacturing - recycling

Agco Power: remanufactured engines

ZenRobotics: intelligent waste-sorting robot

Molok: waste containers

Linjateräs: painting of metal products

New raw materials

Packaging, textile and chemical industry are interested in new biobased and recycled materials

VTT and TUT: new biobased packaging materials and textiles

TouchPoint: textile and plastic waste into work clothes

Amerplast: transforming collected plastic into recycled plastic bags

Ecolan: organic fertilisers from meat and bonemeal

Construction

Wood is coming again.

High goals of replacing the untouched rock and gravel material sources with recovered materials (wastes, surplus ground etc.).

BioVirrat: wooden schools, kindergartens, etc.

City of Tampere has published UUMA -plan to enhance the use of recovered materials. **Hiedanranta** will be an pilot area and **Tarastenjärvi** will act as a material bank for recycled materials.

https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/