

MIKKELI

**Eco**Sairila

A wide-angle photograph of a calm blue lake or sea under a bright blue sky with scattered white clouds. The far shore is lined with a dense forest of green trees.

# Success is made here.

**Join a unique environmental business centre**

Three horizontal, wavy blue lines that resemble water ripples, extending across the width of the page.

**MIKSEI** MIKKELI  
[mikseimikkeli.fi/ecosairila](http://mikseimikkeli.fi/ecosairila)



# EcoSairila -

## The environmental business centre

Climate change, overconsumption of the Earth's resources, increasingly frequent droughts and water shortages are global problems of our age. Mikkeli aims to pioneer the transition from a linear economy to a circular economy. The EcoSairila development platform provides solutions to global challenges, creating successful and sustainable businesses.

EcoSairila is a hub of regional material cycles, and it has a strong profile in water treatment technologies. EcoSairila combines a wide range of companies, public entities and RDI and educational organisations to create a unique innovation ecosystem.

Close collaboration between local actors and the authorities and strong networks of expertise ensure productive collaboration.

### Benefit from more than 100 million euros in investments

We can offer your company piloting and testing environments, an extensive range of services, strong networks and levelled plots of land zoned for industrial activity. Mikkeli has seen more than EUR 100 million of investment in expertise and infrastructure in the areas of water technology, material cycles and renewable energy. A new, ultra-modern wastewater treatment and reclaimed water plant and a biorefinery producing biogas and organic nutrients form the basis for an entirely new platform for the development of the circular economy and environmental business. The strongly committed City of Mikkeli, Mikkeli Development Miksei Ltd, the environmental and licensing authorities, and several financial organisations provide their full backing to companies investing in EcoSairila.

**We are now looking for companies to benefit from the expertise in our area and succeed with us. See you in Mikkeli!**

**Juha Kauppinen**  
CEO, PhD  
Mikkeli Development Miksei Ltd



# Who is it for?

## EcoSairila is where success is made.

Companies can start manufacturing and benefit from the area's strengths: materials, nutrients, reclaimed water, targeted environmental and business services, an environmental data platform that facilitates permit procedures and compliance monitoring, and plots of land suitable for industrial activity.

## New things are being created in EcoSairila.

EcoSairila offers a full-service innovation ecosystem for companies that settle in the area to develop something new. Companies may engage in development work exclusively or alongside their production activities. We offer companies access to a modern, diverse RDI infrastructure and strong local, national and international networks of companies and RDI actors. EcoSairila offers unique environment and tailored services for the development and commercialisation of new products and services.

EcoSairila also serves the area's residents and companies, pro-

viding a wide range of circular economy and waste management services. The area includes Kieppi, a reception and sorting centre, which provides recycling and waste management services and also accepts donations of products suitable for reuse, such as furniture and home electronics.

## EcoSairila generates competitive advantage for companies:

- Plots of levelled land with utility connections zoned for industrial circular economy activities
- Technical and biological material cycles and industrial symbiosis
- RDI platforms and piloting environments for the circular economy and water technology
- Strong educational and research activities
- A diverse range of business services and a digital marketplace for materials and services
- The EcoS environmental data platform and cost-effective environmental services
- The full support of the City of Mikkeli's business units

# The three dimensions of EcoSairila

**Production activities and new product development**

**Usage of material flows, data and digitalisation**

**Local and global collaboration and networking**



## Distances from Mikkeli

1. Vaalimaa border crossing: 130 km
2. St Petersburg: 300 km
3. Helsinki: 230 km
4. Kotka (port): 160 km

## Places to succeed in Mikkeli

Mikkeli offers amazing opportunities for research, development, innovation and business. The city operates three development platforms based on local strengths: the EcoSairila circular economy centre, the Memory Campus digital archiving and digitalisation centre, and Kalevankangas, a centre for sports, active life, wellbeing and events. The development platforms bring together companies and top experts in their fields, reinforcing the city's vitality and the diversity of expertise and businesses.

## Three facts about Mikkeli

- A sustainably developing and vibrant regional centre on the shore of Lake Saimaa.
- Excellent location, just over two hours from the Helsinki metropolitan area.
- Individual solutions for land plots and flexible cooperation with the authorities.

# EcoSairila development platform and industrial area

## Services, partnerships, RDI environments and industrial symbiosis.

In EcoSairila, materials circulate, generate added value and take on a new life safely and efficiently. The EcoSairila development platform and industrial area is built on collaboration between the public and private sectors, expertise and education, and the research and development work and infrastructure in the area.

The area's services and functions are developed with the aim of enabling companies to obtain added

value by utilising the technical and biological raw material flows, energy, technology and services that they produce and that are directed to the area. Companies may have access to resources such as biomethane, carbon dioxide, reclaimed water, surplus heat, slurries and recycled wood. Companies benefit from the shared EcoS environmental information platform in the area, services tailored for the companies in the area, and partnerships with public actors in the region. The circular economy development platform enables companies to launch their production businesses and develop and launch new technologies, products and services more quickly than usual.



**"The XAMK environmental safety research group offers applied research, product development, measurement and monitoring solutions for the bio, water and circular economy sectors. Annually we provide services and cooperate with 400 companies in research and development projects. Research and education collaboration aims for new innovations and technological insights."**

South-Eastern Finland University of Applied Sciences creates pioneering solutions for entities in EcoSairila, promises Principal Lecturer **Arto Sormunen** and Research Manager **Hanne Soininen**.



**"ICLEI and Mikkeli are partners on the joint Horizon 2020 project. Mikkeli is a European trailblazer driving the transition to a circular economy."**

**Simon Clement**  
Coordinator  
ICLEI European Secretariat GmbH  
Freiburg im Breisgau, Germany

ICLEI is a leading global network of more than 1,500 cities and regions committed to sustainable development



**"Our Circular Economy Innovation Ecosystems project recognises the EcoSairila concept as an interesting operating model that can provide companies with a new platform for experimentation and growth in the circular economy. The EcoSairila team is keen and competent, and we work well with them on our projects."**

**Inka Orko**  
Project Manager  
VTT Technical Research Centre  
of Finland Ltd  
Espoo, Finland



# Blue Economy Mikkeli brings together top experts in the water sector

**Expertise, networks and commercialisable innovations**

**“EcoSairila is spearheaded by the Blue Economy Mikkeli centre of excellence, which focuses on the circular economy and digitalisation of the water management.**

It provides companies with RDI and training services, as well as the opportunity to take advantage of a unique testing and piloting environment for developing their business activities. Mikkeli’s strengths and investment in water expertise are recognised nationally and internationally. One example of this is the innovation ecosystem agreement that Mikkeli has signed with the Finnish Ministry of Employment and the

Economy to develop a centre of excellence between 2021 and 2027.

A wastewater treatment and reclaimed water plant utilising the latest technology, a biogas plant and a wide range of research, development and testing environments form a comprehensive entity for developing new water businesses. All interested companies and other actors in the area of water technology are invited to join the Blue Economy Mikkeli cluster established in the centre of excellence. The Blue Economy Mikkeli centre of excellence tailors its services to the needs of the companies in the cluster.

# Water Smart Territories partnership

Blue Economy Mikkeli is active in international networks. The most significant of these - the European Commission’s smart specialisation platform Water Smart Territories - couples Blue Economy Mikkeli with a European network of water expertise. The network includes more than 20 areas specialising in water expertise, including the associated RDI activities and companies, in various parts of Europe. The actors in the network are organised into clusters like the one in Mikkeli.

The Blue Economy Mikkeli cluster and the Water Smart Territories network provide companies with access to the services and expertise of a European innovation communities.

Blue Economy Mikkeli and Water Smart Territories enable companies to find new partners, access new markets and participate in the European Commission’s development programmes and structural and investment funding.

**The Blue Economy Mikkeli cluster brings together companies in the water sector, enabling networking and international collaboration. Come and join us!**



Collaboration between the academic and business worlds leads to breakthroughs. I believe that companies will benefit significantly from the solutions created by top-level applied research at LUT University. The experts from LUT University are strongly committed to the Blue Economy Mikkeli innovation ecosystem.

**Amit Bhatnagar**  
Professor of Water Treatment  
Department of Separation Science  
LUT University  
Mikkeli, Finland



“The Blue Economy Mikkeli is a great European example of how to connect important stakeholders in the water technology sector. It is a pleasure to cooperate with them and I wish BEM a great deal of success!”

**Hein Molenkamp**  
CEO  
Water Alliance  
Leeuwarden, Netherlands



The Blue Economy Mikkeli is a significant enabler for Operon Group to grow and internationalize through innovative technologies in wastewater treatment and water reclamation.

**Mikko Laitinen**  
CEO  
Operon Group Oy  
Mikkeli, Finland



# Research, development and innovation environments to support companies

**EcoSairila has a wide range of environments to support companies in their product development activities. The EcoSairila development platform consists of the research, development and innovation environments in the area, as well as production units and processes adapted for use as development environments. The operations are based on top-level expertise, collaboration between the actors in the area, and partnerships.**

## Water technology

In connection with Mikkeli's new wastewater treatment plant built into the bedrock, a wide range of research, development and piloting environments have been created for wastewater treatment and the production of reclaimed water. These environments are integrated as a part of the actual water purification process.

The Department of Separation Science at LUT University seeks to research, develop and commercialise separation methods based on micro and nano technologies, membrane separation, chromatographic separation, adsorption, ion

exchange and microalgae. Mikkeli's top-class laboratories and research infrastructure are constantly being updated with new equipment and installations to create the extra advantage to companies collaborating with BEM.

The environmental safety research group at the South-Eastern Finland University of Applied Sciences (XAMK) offers applied research, product development and measurement and monitoring solutions in the bio, water and circular economy sectors. One example of XAMK's expertise is the unique RDI environment focused on the treatment of urban runoff, implemented with the City of Mikkeli.

## RDI environment for treating urban runoff

The treatment system uses retention, biofiltration, biochar and other filtration materials to clean the runoff water before discharging to the local lake. The system is equipped with a continuous monitoring system to verify the performance of various filtration materials. The RDI environment is a great example of combining research and development work related to water expertise and biochar.



**The environment implemented in Mikkeli offers tangible opportunities for the development and testing of new filtration materials based on biochar. We are pleased that companies' development needs are taken into consideration when the urban infrastructure is built.**

**Charlotta Liukas**  
Development Director  
Carbo Culture Oy

## Biological cycles

In the EcoSairila area, RDI environments focusing on the nutrient cycle are composed around the activities of composting and biogas plants, and the processing and refinement of organic material flows. Demonstration environments allow for the development and optimisation of biogas processes, nutrient recovery and refinement, among other things. EcoSairila also offers the opportunity to develop new solutions for utilising biochar and ash.

## Technical flows

The material flow RDI platform is built around the Kieppi reception and sorting centre in EcoSairila and the other EcoSairila functions and infrastructure. EcoSairila makes it possible for companies to experiment with new operating models based on material flows and conduct pilot studies in areas such as the development of recycled construction and demolition waste and excavation materials.

## Renewable energy

The renewable energy RDI platforms consist of a heat pump plant that uses the surplus heat from wastewater, a power generator operating on gas from a landfill site, a solar power demonstration plant designed for product development, a regional heating centre implemented with a combination of solar energy and wood chips, and a biogas plant, including systems for refining and distributing biogas for transportation use. In addition, The Mikkeli region has a long tradition in sustainable forestry. Research and development is focused on fuel logistics and analysis, combustion processes and biochar processing as well as carbon capture.

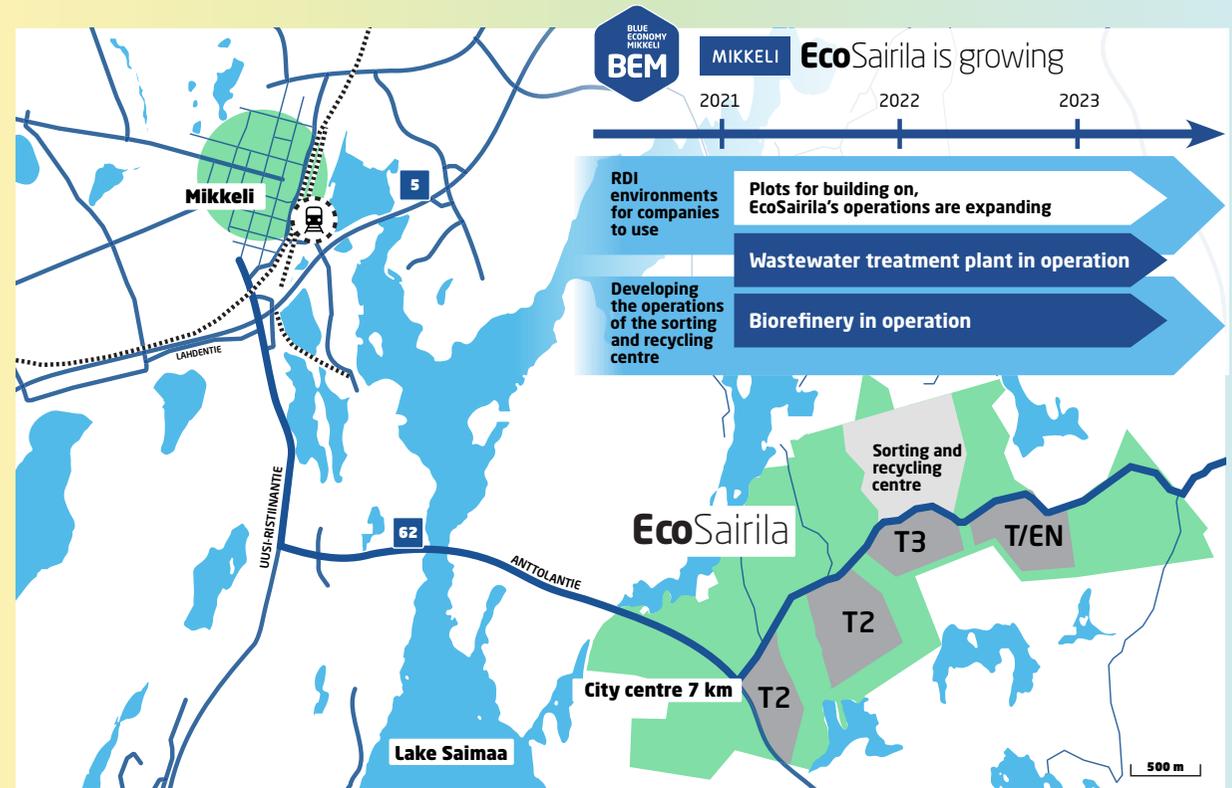
# Space for success

The levelled plots of land with utility connections in EcoSairila are tailored to each company's individual needs.

Companies can make use of RDI environments focusing on the circular economy of the water supply and material flows

Wastewater treatment plant operating since early 2021

Biorefinery operating since early 2021



We offer tailored location options, versatile material flows, industrial symbiosis and synergies, modern infrastructure and targeted, cost-efficient services.

The EcoSairila area and its actors form a hub of biological and technical material flows arising in the Mikkeli region and directed here from further afield. A wastewater treatment plant utilising the most advanced purification technology in Europe, a modern, diverse waste management centre, and a biogas plant offer business opportunities and synergies with other companies and actors located in the area.

The Kieppi centre provides better service for residents and companies using recycling and waste management services in the area. The reception and sorting centre is

jointly established by the Metsäsairila municipal waste management company and a local NGO, Mikkelin Toimintakeskus. Kieppi takes all disused materials and develops new methods for exploiting recycled and discarded materials. This improves the material recycling rate and creates business profitability for the processing and reuse of recycled and discarded materials in the area.

**More than 100 hectares have been zoned in the area for new companies, providing them opportunities for industrial production activities. The plots are levelled and ready to be connected to the municipal utilities.**

"BioSairila is an active developer of the EcoSairila area, seeking partnerships with organisations engaged in the processing and further refinement of biowaste. The use of the biomethane and digestate produced by our biorefinery offers new business opportunities for companies in the area."



**Ville Kakkonen**  
CEO  
BioSairila Oy

"Mikkeli Waterworks offers very practical and concrete ways to collaborate in developing processes and technology in the field of water management. Further collaboration with BEM can result in covering the whole water supply and sanitation sector."



**Reijo Turkki**  
Director  
Mikkeli Waterworks

MIKKELI

EcoSairila



## All of this awaits your company!

- Strong local, national and international networks
- Technical and biological material cycles and industrial symbiosis
- The EcoS environmental data platform and cost-effective environmental services
- A diverse range of business services and a digital marketplace for materials and services
- Strong educational and research activities
- RDI platforms and piloting environments for the circular economy and water technology
- Levelled plots of land zoned for industry

## Contact us

We can help your company to become an integral part of our success story.

Panu Jouhkimo  
Programme Coordinator  
044 598 6854  
panu.jouhkimo@mikseimikkeli.fi  
www.mikseimikkeli.fi



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Vipuvoimaa  
EU:lta  
2014–2020