



MERINOVA

TECHNOLOGY CENTRE



MERINOVA

Merinova - The Largest Energy Cluster in Nordic Countries

Technology Centre Merinova

Main Role

The Cluster - In figures

The Cluster invest in the future

OVERVIEW

- Merinova is a public private company, established in 1989 to develop the energy sector in the Vaasa region
- The Cluster organization was founded by the City of Vaasa, the University of Vaasa with the participation of the major international companies in the region such as Wärtsilä, ABB, Vacon, Veo, Vamp. . .
- Since its establishment Merinova created and managed the Largest Energy Cluster in Nordic Countries
- Today Vaasa is the most competitive city in Finland and the only region with economic growth.
- Merinova got the EU Bronze certificate label of the Cluster Management Excellence in 2011, and on the 2nd of May 2016 got the Label for the second time. Gold label will be obtained end 2016.



MAIN ROLE

- Technology Centre Oy Merinova Ab promotes the utilization of new technologies by offering development projects and services within the energy technology sector.
- Management of research and development projects
- Strengthening the research infrastructure
- Design and implement development projects for the public and private sector
- Develop and strengthen the international cooperation between several energy actors and the technology providers.
- Increase the collaboration between companies and research institutions

THE CLUSTER – IN FIGURES

- More than 140 businesses, several on which are global market leaders.
- Total business turnover 4,4 billion Euro annually, export rate over 80%
- About 30 % of total Finnish energy technology export are located within one location
- Current number of employees over 11,000, 1/4 of Finland's total energy sector manpower
- More than 2000 experts specialized in energy related research and development

MORE THAN

140



BUSINESSES, SEVERAL OF WHICH ARE **GLOBAL MARKET LEADERS** IN THEIR FIELD

A STUNNING

30%



OF FINI AND'S TOTAL EXPORT IN **ENERGY TECHNOLOGY**

TOTAL BUSINESS TURNOVER SOME



4.4

BILLION ANNUALLY

EXPORT RATE OVER 80%

CURRENT NUMBER OF EMPLOYEES:

11,000



25% OF TOTAL MANPOWER IN THE FIELD OF ENERGY IN FINLAND

THE CLUSTER – IN FIGURES

One of the strengths in the cluster lies in the variety of business areas within energy technology



THE CLUSTER INVEST IN THE FUTURE

The R&D investments in EneerVaasa companies have almost tripled since 2005.
At the same time personnel doing R&D work have doubled to 2000.

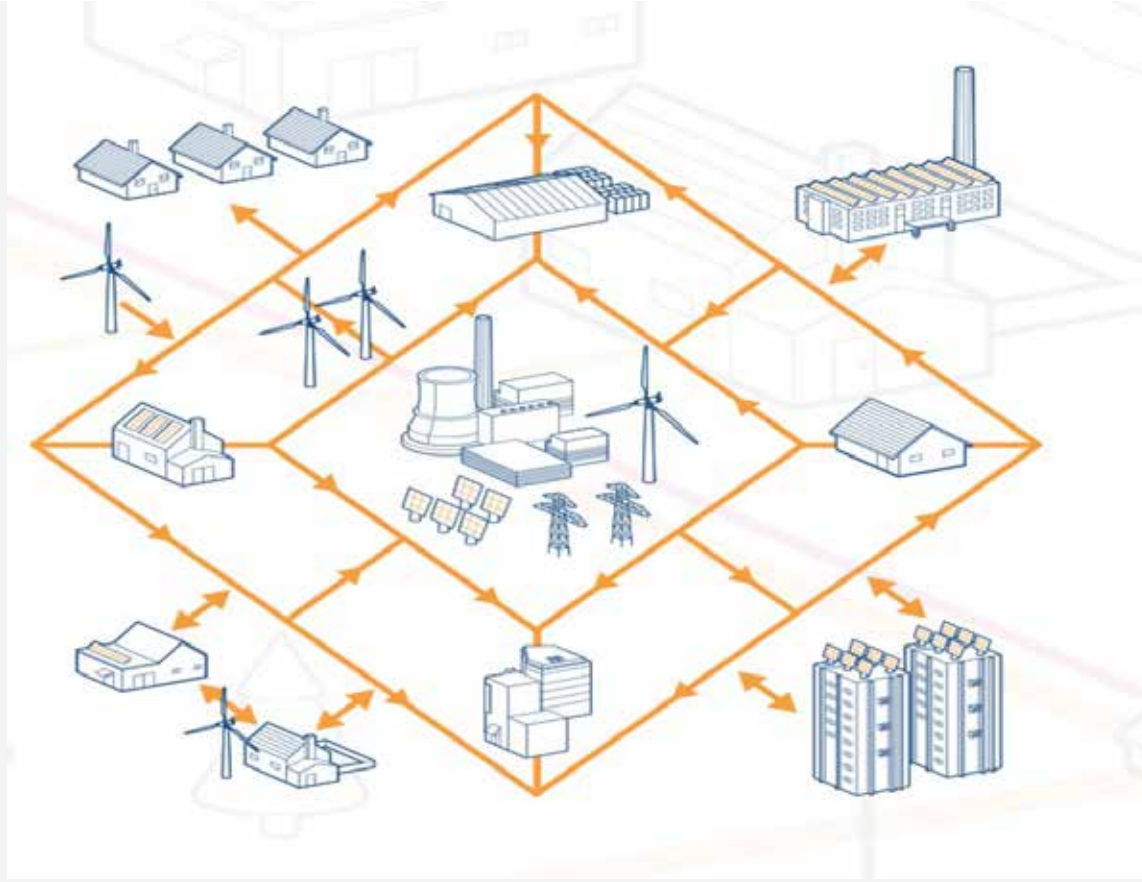




R&D
PROJECTS

Sundom Smart Grid
Vaasa Energy Lab 2014-2016
Vaasa Station 2015-2020
Gulf of Bothnia Ferry 2015-2020

MEGA R&D PROJECTS
SUNDOM SMART GRID
2015 - 2018

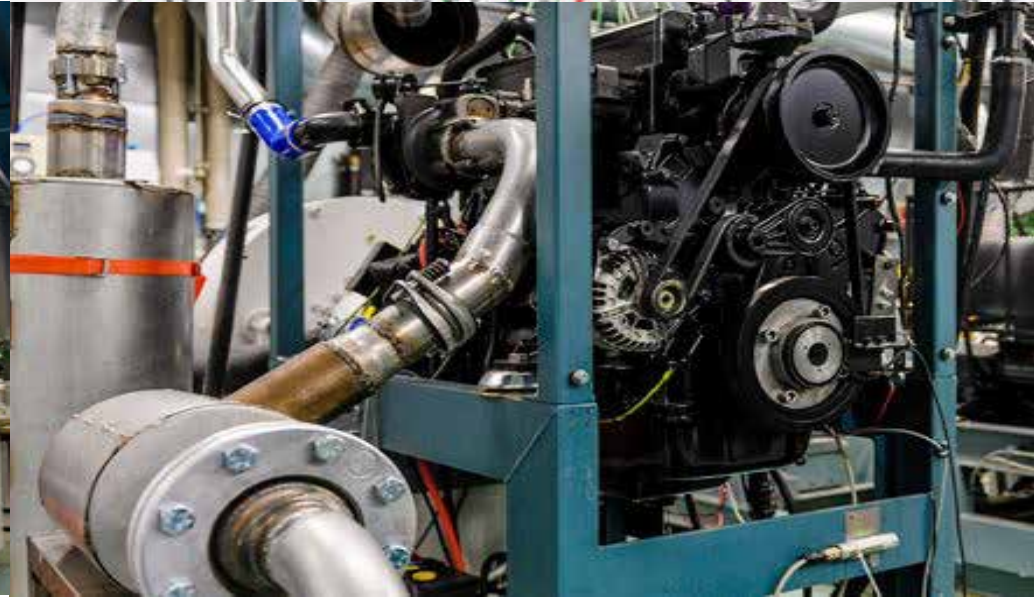
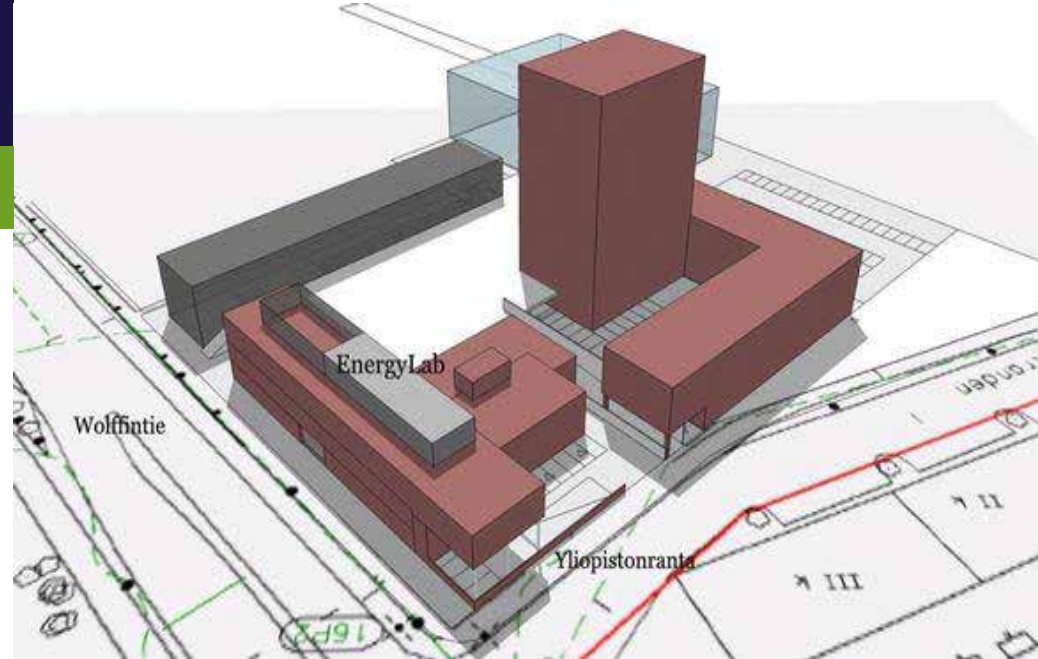


MEGA R&D PROJECTS

VAASA ENERGY LAB 2014-2016

Is a laboratory for Engine and Fuel Research offers internal combustion engine (ICE) and fuel research for industrial companies and research institutes.

The research work in the Biofuel laboratory is mainly concentrated on renewable fuels.





MEGA R&D PROJECTS VAASA STATION 2015-2020



WASA STATION

Is a mega smart building that will offer a commercial premises, hotels, restaurant and leisure area for the citizens of the Vaasa city using the latest technologies within energy and renewable energy.

MEGA R&D PROJECTS

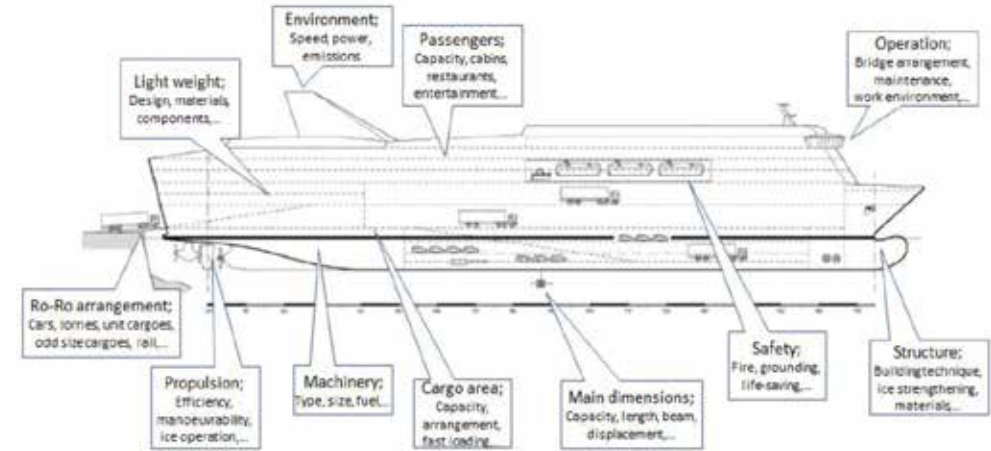
GULF OF BOTHNIA FERRY 2015-2020

In the cluster we coordinate and Design a new ferry as part of the 'Midway Alignment of the Bothnian Corridor' project.

- ◆ Energy efficient logistics in Kvarken
- ◆ Planning phase 2014-2015
- ◆ building 2015-2018.
- ◆ Light weight steel building technique,
- ◆ LNG, ice operation.
- ◆ Energy efficient on board power generation.

The ferry is designed for sailing between Vaasa in Finland and Umeå in Sweden across the Gulf of Bothnia in the Baltic Sea.

The new vessel is required to be innovative, efficient and environmentally sound. The design will also take into account the need for operational flexibility since the transport demands on this route vary from season to season.





DEVELOPMENT
PROJECTS

TCE - Towards Cluster Excellency

Reina Plus

Cleantech Kvarken

Innovation Cluster II

DEVELOPMENT PROJECTS

TCE - TOWARDS CLUSTER EXCELLENCY



- 18 Months Project, funded by EU 95%
- 4 European Clusters included

Project Objectives:

- Learn, strengthen and get The EU gold Label in the management of the Cluster.
- Improve the cluster's skills to perform better
- Improve the performance of cluster member and support them on all level.
- Increase the competitiveness of regions

In Partnership With



DEVELOPMENT PROJECTS

REINA PLUS



In Partnership With



- 2 years EU funded project 75% EU and 25% Local contribution.

Project Objectives:

- Market analyses and identification of the opportunities outside EU area
- Establishment of partnership agreement with organizations outside EU area
- Internationalization of SME'S in new Market.
- Increased cooperation between businesses among the clusters involved within the project.
- Increased cooperation between the cities,
- Cross sectoral collaboration
- Joint export initiatives to new markets: Africa
- Development of joint research projects for companies and universities.
- Matchmaking events
- Establishment of international networks
- Export and trade fair missions

- 3 year INTREG Project, 60% of it funded by EU. This is within the Botnia Atlantica program.
- Focus: Collaboration between Cleantech Companies in order to promote international business.

Project Objectives:

- Increased cooperation between businesses
- Increased cooperation between the cities
- Joint export initiatives to new markets: Africa, Estonia, Norway, Scotland, USA.
- Development of joint projects for companies and universities
- Cooperation in technical and business visits
- Matchmaking events
- Establishment of international networks
- Integration of foreigners skills
- Export and trade fair missions





DEVELOPMENT PROJECTS **INNOVATION CLUSTER II**

The goal will be achieved by developing the know-how and cooperation between firms and public bodies, research institutions and universities. Additionally, one should promote the realisation of national reference projects.





www.merinova.fi