Regional Snapshots from Strong Energy Regions
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 Vaasa Energy Cluster.

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.
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
> 140 businesses, several global market leaders.
> Turnover EUR 4,4 €BIO annually, export 80%
> 30 % of total Finnish energy technology export
> Currently > 11,000 - ¼ of Finland’s total energy sector manpower
> > 2000 experts in energy related R&D
One of the strengths in the cluster lies in the variety of business areas within energy technology.
Vaasa Airport Park
Main R&D Projects

Sundom Smart Grid 2015-2016

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Main R&D Projects

Vaasa Energy Lab

- Engine and Fuel Research, offering internal combustion engine (ICE) and fuel research for industrial companies and research institutes.
- Main research work in the Biofuel lab specialized on renewable fuels.

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Main R&D Projects

Wasa Station 2015-2020

The Wasa Station is a smart building that will offer commercial premises, hotel, restaurants and leisure area for citizens of Vaasa using the latest technologies within energy and renewable energy.

http://vaasanseutu.fi/app/uploads/sites/7/2015/03/Mikael-Snellman-1.-Wasa-Station-Information.pdf
Gulf of Bothnia Ferry 2015-2020

- Coordination and Design of a new ferry as part of the ‘Midway Alignment of the Bothnian Corridor’.
  - Energy efficient logistics in Kvarken
  - Planning phase 2014-2015
  - Building 2015-2017
  - Light weight steel building technique
  - LNG, ice operation
  - Energy efficient on board power generation.

- Designed for sailing between Vaasa and Umeå across the Gulf of Bothnia in the Baltic Sea.
- required to be innovative, efficient and environmentally sound.
- need for operational flexibility since the transport demands on this route vary from season to season.
The realization of the most advanced wind turbine:

- 3,6 MW capacity
- Rotor diameter 118 m,
- Tower height 125 m,
- Rated wind speed 11.5 m/s
- Theoretical power factor of 50%.

Using numerous technical innovations, we have simplified the traditional wind turbine in order to ensure operational reliability, improved efficiency, prolonged lifetime, and reduced lifecycle costs.

In our wind power plants, we adapt so-called direct drive technology.
Ongoing Projects

- 3 yr INTERREG Project, 60% EU funded, Bothnia Atlantica program.
- Focus: Collaboration between Cleantech Companies in order to promote international business.

Project Objectives:
- Increased cooperation between businesses, the cities and joint export initiatives to new markets: Estonia, Norway, Scotland, USA.
- Development of joint uni-industry projects
- Matchmaking events & international networks
- Integration of foreigners skills
- Export and trade fair missions
Ongoing Projects

**EUROPEAN ENERGY CLUSTER PARTNERSHIP REINA PLUS**

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

**Project Objectives:**
- Market analyses and identification of opportunities outside EU
- Internationalization of SME’s
- Cooperation amongst businesses and cities in the clusters involved
- Cross sectoral collaboration
- Joint export initiatives to new markets: Africa
- Development of joint research projects for companies and universities.
- Matchmaking events, Export and trade fair

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TCE PROJECT
Towards Cluster Excellency

- 18 ms Project, 95% EU-funded
- 4 European Clusters

Project Objectives:
- Learn and achieve EU gold Label in Cluster mgmt.
- Improve Cluster’s skills
- Increase the regional competitiveness
The Vaasa region is powered by EnergyVaasa, the largest energy cluster in the Nordic countries. The annually organized Vaasa EnergyWeek is the place where the cluster companies gather to network and make business.

Vaasa EnergyWeek offers interesting events and forums for experts in both the public and private sectors.

https://www.youtube.com/watch?v=sjv9U_uX2MA
Finnish Algerian Energy Forum

Energy Days

Now or Never

https://www.youtube.com/watch?v=8LbsBgeXlbI
Internationalization of the Cluster

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Part of REINA I, EU Funded project.

- The participation of the cluster companies from Vaasa and other European region such as: VEO, VACON, FINTOS, WÄRTSILÄ, ABB ALA-TALKKARI, SOP METAL

https://www.youtube.com/watch?v=n7U5ezUgu90
Funded by the city of Vaasa and the cluster members

In 2012: Regional Energy Ambassador, project fund around 100,000 € gain a marketing materials of about 3M€ for the companies and for the region.

In 2013: Energy Ambassador goes global USA, Norway, Brazil, China, India, Spain, Ecuador, Tunisia, Thailand.

Project Fund about 150,000€ generated marketing materials income of 4M€ for the companies, the region and the country overall.
Upcoming Activities

The goal:

- Gather the African Power Utilities, mining industries, Financial institutions, and politicians with Finnish Energy Technology providers.
- Implementation: November 2016

Why?

Africa
- Estimated Private equity growth in Africa at 8% in 2018
- Estimated Total investment potential USD 50 billion by 2020.
- Current Collective GDP USD 2 trillion
- Consumer spending is expected to come in at USD 1 trillion by 2020.
- Moreover, continent boasted 29 billionaires in 2014.
Upcoming Activities

TEM 2016-18 for Vaasa

Growth strategy for Finland

6 cities selected out of 18

Innovate in all aspects of City development

The goal:

- Develop the Energy Initiatives in the Vaasa region
- Implementation: June 2016 for 2yrs

Why?

- Citizen involvement
- Increase in investment potential for regional projects
- Research & Development projects for industry, research centers and universities

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Some of the Cluster Members

- Wärtsilä
- ABB
- Vacon
- Mervento
- The Switch
- Vaasan Ammattiopisto
- Westenergy
- Mateve Oy
- Vaasan Sähkö
- Vasa Elektriska
- EPV
- There
- Vamp
- Arcteq
- VEO
- E Ya!
- Vaska Energy Institute
- WE Tech
- Leinolat Group
- SOP Metall
- Österberg Group
- Escarmat
- Oy Mapromec Ab
- VM Group Oy
- UltraCut
- KiGa Tool
- InCap
- Vakk
- Vaasa Yliopisto
- Novia
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