

A background image of a sunset over the ocean. The sun is low on the horizon, creating a bright glow that transitions into a blue sky with light clouds. The water in the foreground is dark blue with gentle ripples.

Energy

Week

2017 20 - 24
MARCH VAASA,
FINLAND

A decorative horizontal band consisting of alternating white and dark blue diagonal stripes.

PROGRAM



ENERGYWEEK
CONTACTS & INFO

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*Our new
vision
is called
Gigavaasa*

3

ENERGY-
WEEK
2017
POWERED
BY
38

VAASA - THE NORDIC ENERGY CAPITAL AIMING FOR GIGAFACTORY

Once again Vaasa has the honour of hosting Finland's number one event for the energy industry. Vaasa Energy Week brings together some 4,000 experts to exchange thoughts, ponder future trends and make the world a cleaner place to live.



We need visions, they give us the direction to go forward. The vision of the City of Vaasa was to be the Energy Capital of the Nordic Countries and that vision quickly became the reality. Vaasa has an energy industry cluster that is also internationally distinguished. More than 140 companies within the energy sector represent a turnover of over 4 billion euros. All these companies work together with

educational institutions and other organizations towards growth and development.

Now Vaasa wants to become a part of visions that are far greater, visions that will change the world for the better. Our new vision is called Gigavaasa and we are currently preparing a proposal for the next Tesla Gigafactory to be built in Vaasa. Sustainable development is our passion and Vaasa is an

important player in the global energy and environmental issues. That is why we are aiming for Gigafactory.

I wish you a rewarding and enjoyable week in Vaasa!

TOMAS HÄVRY
MAYOR, CITY OF VAASA

ACTIONS ARE NEEDED FOR MEETING THE TARGETS OF THE PARIS AGREEMENT

Last November, the historical agreement reached in Paris came into effect. Still, we live in uncertain times and the challenges we face are great.

Global warming is progressing at alarming speed. Also in Finland, we must not underestimate the needs for action - especially considering renewable energy - if we are to meet the Paris target of 1.5°C.

Firstly, the Finnish government should take a firm stand in banning the use of coal. Secondly, it should change its position on peat. The last government decided to decrease the use of peat systematically.

The current government should continue this process.

Lastly, the government should see the benefits of circular economy. It is important to remember that we all live in a world of alternative costs — waste generation can thus be completely profitable. Therefore, economic incentives for promoting the circular economy should not be ignored in efforts to reach the Paris targets.

We should turn our efforts

in making solar and wind power viable options in Finland. Subsidising electric cars or developing our smart electrical grid are ways to harness our innovative potential. It is better for the environment. It is better for our health. And it is better for creating new jobs.

VILLE NIINISTÖ
KEYNOTE SPEAKER,
VAASA WIND EXCHANGE
AND SOLAR



CONTACTS & INFO



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ENERGYWEEK-ISSUES**
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READ MORE:

VISITVAASA.FI

RESTAURANTS



1H + K

Breakfast, lunch, evening menu
Mon 8.30-16, Tue-Fri 8.30-23, Sat 10-23
Hovioikeudenpuistikko 13 A [2nd floor]
WWW.1HK.FI

AMARILLO

Southern style restaurant
Mon 11-22, Tue-Thu 11-23, Fri-Sat 11-24
Rewell Center 2nd floor, Ylätori
WWW.AMARILLO.FI

BRASSERIE & BAR FONDIS

European style brasserie
Mon-Thu 11-23, Fri 11-02, Sat 12-02
Hovioikeudenpuistikko 15
WWW.FONDIS.FI

FRANS & NICOLE

Mon- Sat 11:00-24:00
Hovioikeudenpuistikko 18
WWW.RAFLAAMO.FI

GUSTAV WASA

Fine Dining & Gastropub
Mon-Fri 18- Sat 16-
Raastuvankatu 24
WWW.GUSTAVWASA.COM

BANK FOOD & WINE

Pure and modern Scandinavian flavors
Mon-Fri 9.30-23
Sat 12-23
Hovioikeudenpuistikko 11
WWW.BANKANDPOCKET.FI

KAFFEHUSET AUGUST

Lunch, à la carte
Mon 9-21, Tue-Fri 9-23, Sat 11-23
Hovioikeudenpuistikko 13
WWW.KAFFEHUSETAUGUST.FI

CAFÉES

AROMA

Finland's best bakery [winner 2014]
Mon-Fri 8-17, Sat 9-14
Hovioikeudenpuistikko 11
WWW.AROMA.FI

CAFE DE PARIS

French café culture. Broad variety of coffees and sweet and salty snacks. Lunch.
Mon-Fri 7.30-19, Sat 07.30-18, Sun 11-16
Rewell Center 1st floor
WWW.CAFEPARIS.FI

FAZER CAFE

Hovioikeudenpuistikko 15 A
Mon-Fre 08:30 - 19:00
WWW.FAZER.FI

KONDITORI WASA

Local bakeries' products, also lunchmenu
Mon-Fri 8-18, Sat 9-15
Market Hall, Vaasanpuistikko 18
WWW.WASAKONDITORI.FI

LOFTET

A café in charming 19th century surroundings that also serves lunch
Mon-Fri 10-17, Sat 10-15
Raastuvankatu 28
WWW.LOFTET.FI

SWEET VAASA

Cakes, salads, lunch
Mon-Tue 10-18, Wed-Thu 10-21
Fri 10-22, Sat 10-18
Hovioikeudenpuistikko 11
WWW.SWEETVAASA.FI

TO DO

BOCK'S CORNER BREWERY

A small independent brewery, also serves food
Mon-Thu 16-22, Fri-Sat 16-02, Sun 14-20
Gerbyntie 18 [2,6 km from city centre]
WWW.BOCKSCORNERBREWERY.COM

BIOREX VAASA

Movie theatre
Hovioikeudenpuistikko 16
WWW.BIOREX.FI

THE CLUB

Pool, darts
Thu 18-22
Kauppapuistikko 20
WWW.THECLUB.FI

TROPICLANDIA

Spa, sauna
Sun-Thu 10-20, Fri-Sat 10-21
Kesäpolku 1
WWW.TROPICLANDIA.FI

WASA CINEMA BOWLING

Bowling, pool
Mon-Tue 13-12, Wed-Thu 13-22, Fri-Sat 13-24
Kauppapuistikko 18
WWW.CINEMABOWLING.COM

VAASA WALKS

Download the App [available in App Store and Google Play] and take a guided walk in Vaasa on your own.



DID YOU KNOW?

The Kvarken Archipelago is the only Finnish natural heritage on UNESCO's World Heritage List. Kvarken is part of a global family of 46 Marine World Heritage sites together with the High Coast in Sweden.

There is room to breathe in our sunny and barren archipelago. Let the tender sea breeze sweep your troubles and worries away. Enjoy here and now, all year round.

The Kvarken Archipelago together with the High Coast in Sweden form a transboundary World Natural Heritage site. We received the World Heritage status because our area is the best place in

the world to witness the phenomenon of land uplift. The Kvarken Archipelago possesses a genuine geological value since the rapid rate of the land uplift is one of the highest observed worldwide. Further, the archipelago, together with the High Coast, is a key area for understanding the processes of land uplift caused by the melting of the ice sheet during the last ice age. Unique traces, or glacial depositional landforms, of the ice age can also be observed in the Kvarken archipelago, as De Geer-moraines and Ribbed-moraines. These landforms add to the variety of the landscape in the region.

Read more: WWW.KVARKENWORLDHERITAGE.FI



SCHEDULE

MARCH 20-24, 2017

MONDAY March 20	TUESDAY March 21	TUESDAY March 21	WEDNESDAY March 22	WEDNESDAY March 22	WEDNESDAY March 22	THURSDAY March 23	THURSDAY March 23	THURSDAY March 23	FRIDAY March 24	FRIDAY March 24
<p>EnergyWeek Evening 1 Fontana Club 19:00 -</p>	<p>Vaasa Wind Exchange & Solar Exhibition Vaasa City Hall 10:00 - 17:00</p> <p>Exhibitor briefings 11:30 - 15:30</p>	<p>Vaasa Wind Exchange & solar Seminar Vaasa City Hall 11:00 - 15:30</p>	<p>Vaasa Wind Exchange & Solar Exhibition Vaasa City Hall 10:00 - 15:00</p> <p>Exhibitor briefings 11:00 - 13:00</p> <p>Energy Match Vaasa City Hall 10:00 - 16:00</p>	<p>Vaasa Wind Exchange & solar Seminar Vaasa City Hall 10:30 - 14:45</p>	<p>Sales Café Workshop Hanken 12:00 - 16:45</p>	<p>Vaasa Gas Exchange Exhibition Vaasa City Hall 09:00 - 17:00</p> <p>Exhibitor briefings 12:00 - 15:30</p> <p>Energy Match Vaasa City Hall 10:00 - 16:00</p>	<p>Vaasa Gas Exchange Seminar Vaasa City Hall 10:00 - 15:10</p>	<p>EnergySpin Vaasa-opisto 13:00 - 17:00</p> <p>EnergySpin networking Vaasa-opisto 17:00 - 19:00</p>	<p>Energy & Buildings Exhibition Vaasa City Hall 09:00 - 15:00</p> <p>Exhibitor briefings 10:00 - 15:00</p>	<p>Energy & Buildings Seminar Vaasa City Hall 09:00 - 14:00</p>
<p>Energia- & ympäristö-seminaari Vaasan kaupungintalo 12:00 - 16:15</p>	<p>Vaasa Wind Exchange & Solar Exhibition Vaasa City Hall 10:00 - 17:00</p>	<p>Energy Business Forum Ritz 13:00 - 17:10</p> <p>Energy Business Networking Ritz 17:10 - 18:00</p>	<p>Energy Regulation Restaurant Central 09:15 - 16:00</p>	<p>Energy Regulation Cocktails and get-together Restaurant Central 16:00</p>	<p>Cyber Security & Digitalization Ritz 9:00 - 17:00</p>	<p>Vaasa Gas Exchange Exhibition Vaasa City Hall 09:00 - 17:00</p>	<p>Vaasa Gas Exchange Seminar Vaasa City Hall 10:00 - 15:10</p>	<p>Energy & Buildings Exhibition Vaasa City Hall 09:00 - 15:00</p>	<p>Energy & Buildings Seminar Vaasa City Hall 09:00 - 14:00</p>	
	<p>EnergyWeek Evening 1 Fontana Club 19:00 -</p>		<p>EnergyWeek Evening 2 Academill 19:00 - 23:30</p>							

- Exchange - events
- Seminar events
- Evening events
- Other events





ENERGIA- & YMPÄRISTÖSEMINAARI

#EnergiaYmparisto
#EnergyWeek

SEMINAARI

Maanantai 20. maaliskuuta, 12:00-16:15
Vaasan kaupungintalo (Senaatinkatu 1)

Vuodesta 2005 lähtien joka kevät järjestetty Energia- & ympäristöseminaari on vaikuttaja-tapahtuma, joka kerää yhteen merkittävän joukon alan päätöksentekijöitä niin julkiselta sektorilta kuin yrityksistäkin keskustelemaan alan ajankohtaisista teemoista. Vuoden 2017 seminaarin keskiössä ovat energia-alan tulevaisuus ja uusiutuvat energialähteet.



OHJELMA

- | | |
|---|--|
| 11:30 Rekisteröinti | 13:55 Kahvia, virvokkeita ja verkostoitumista |
| 12:00 Tervetuloa seminaariin | 14:25 Aurinkosähkö ja hybridiratkaisut
Development Manager Malin Östman ,
Wärtsilä Finland Oy |
| 12:10 Vaasa EnergyWeekin 2017 avaus
Communication & Brand Manager Hanna Alavillamo ,
EnergyVaasa | 14:50 Tulevaisuuden älykkäät sähköverkot
Head of Grid Automation Center of Excellence
Dick Kronman , ABB Oy |
| 12:15 On uskallettava ajatella isosti - case Teslan Gigafactory
Kaupunginjohtaja Tomas Häyry , Vaasan kaupunki | 15:15 IoT & energia - hajautettu energiantuotanto,
kysyntäjousto ja Big data
Toimitusjohtaja Pasi Tuominen , Wapice Oy |
| 12:45 Energia-alan tulevaisuus Suomessa
Ulkomankauppa- ja kehitysministeri Kai Mykkänen | 15:40 Energia-alan rahoitus
Kehitysjohtaja Pekka Sivonen , Tekes |
| 13:15 Sähkömarkkinoiden murros
Sähkömarkkinajohtaja Asta Sihvonen-Punkka ,
Fingrid Oyj | 16:05 Seminaarin päätöspanat
Pohjanmaan maakuntajohtaja Kaj Suomela |
| 13:45 Teknologian valtava muutosvoima
Yrittäjä ja kirjailija Rune Westergård | |

NOTE!
PRESENTATIONS
ARE MOSTLY IN
FINNISH
LANGUAGE

Seminaarin ensimmäisen osan puheenjohtajana toimii
toimitusjohtaja **Juha Häkkinen**, Pohjanmaan kauppakamari

Seminaarin toisen osan puheenjohtajana toimii
päätoimittaja **Jyrki Alkio**, Tekniikka&Talous

PUHUJAT



HANNA ALAVILLAMO
Communication & Brand Manager,
EnergyVaasa
Hanna toimii EnergyVaasan viestintäpäällikkönä.
Hänen vastuullaan on koko EnergyWeekin
koordinointi ja markkinointi. Hannalla on taustaa teollisuudesta,
niin kehitys- kuin markkinointityöstä.



TOMAS HÄYRY
Kaupunginjohtaja, Vaasan kaupunki
Vaasan seudun energiaklusterilla ja Teslalla on
yhteinen tavoite: nopeuttaa maailman siirtymistä
kestävään energiaan. Tämä on hanke, joka
rakentaa Vaasan tulevaisuutta useaksi sukupolveksi eteenpäin, kertoo
Tomas.



KAI MYKKÄNEN
Ulkomankauppa- ja kehitysministeri
Kai nousi ministeriksi viime kesäkuussa ensim-
mäisellä kansanedustajakaudellaan. Ennen poliit-
tista uraansa hän on mm. työskennellyt EK:ssa ja
elinkeinoministeri Häkämiehen erityisavustajana. Kain ydinosuamista
ovat talous- ja energia-asiat sekä Venäjä.



ASTA SIHVONEN-PUNKKA
Johtaja, markkinat, Fingrid Oyj
Asta on ennen Fingridiä vetänyt Viestintävirastoa
sekä Energiamarkkinavirastoa. Fingridissä hän on
osallistunut yhtiön keskustelupaperin valmisteluun
ja sen jatkotyöhön, ja hän edustaa Fingridiä pohjoismaisessa ja euroop-
palaisessa ENTSO-E:n markkina-asioita käsittelevässä työryhmässä.



RUNE WESTERGÅRD
Yrittäjä ja kirjailija
Rune on parantumaton tekniikkaoptimisti. Hän
on uransa aikana ollut mukana luomassa useita
urauurtavia ympäristöteknisiä ratkaisuja, ja hän
uskoo vahvasti, että uudessa ja paremmassa tekniikassa on ratkaisu
nykyisiin ympäristöongelmiin.



MALIN ÖSTMAN
Development Manager, Project Development,
Wärtsilä Energy Solutions
Malin on tuotantotalouden diplomi-insinööri Aalto-
yliopistosta. Valmistuttuaan hän on työskennellyt
Boston Consulting Groupissa ja vuodesta 2013 Wärtsilässä. Hän tekee
projektikehittämistä, lisäksi hän on viimeiset 3 vuotta ollut mukana
kehittämässä hybridiratkaisuja ja aurinkosähköstrategiaa.



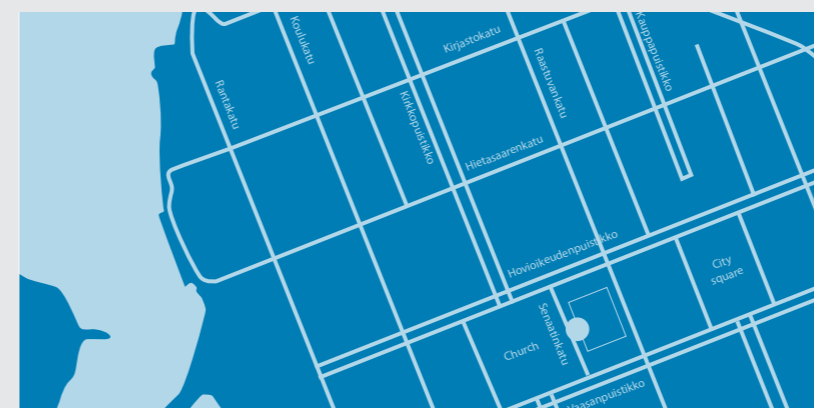
DICK KRONMAN
Head of Grid Automation Center of Excellence,
ABB Oy
Dickillä on 30 vuoden kokemus automaatiosta ja
sähkönjakelusta. Hän oli mukana lanseeraamassa
älyverkkoja Suomeen ja käynnistämässä ensimmäistä tutkimushanketta.
Tällä hetkellä tutkimus jatkuu digitalisaation ja IoT:n saralla. Dickin
ydinosaamista on tutkimustulosten muuntaminen kannattavaksi
liiketoiminnaksi.



PASI TUOMINEN
Tekn.tri, toimitusjohtaja, Wapice Oy
Wapicen osaaminen on langattomassa etäohjauk-
sessa ja mittausjärjestelmissä. IoT:n käyttö ener-
giaratkaisuissa ja myös laajemmin on jatkuvan
kehityksen kohde Wapicella. 30% Suomen sähköyhtiöiden loppu-
asiakkaista käyttää Wapicen tuotetta sähkön käytön seurantaansa.



PEKKA SIVONEN
Kehitysjohtaja, Tekes
Pekka vastaa Tekesin digialueen strategiasta ja
ohjelmista. Uusimpina avauksina hänen tiiminsä
on valmistellut ohjelmat tekoälyn, täydennetyt ja
virtuaalitodellisuuden soveltamiseen teollisuudessa ja yhteiskunnassa.
Näillä eväillä maamme energiaklusterista tehdään kansainvälinen,
disruptiivinen innovaatioalusta.



Yhteystiedot

Kysyttävää? Kysy Mialta
MIA BRÄNNBACKA
Pohjanmaan kauppakamari
mia.brannbacka@chamber.fi
+358 (0) 50 309 2331



VAASA WIND EXCHANGE & SOLAR

#WindSolar
#EnergyWeek

SEMINAR

Tuesday March 21, 11:00-15:30
Vaasa City Hall [Senaatinkatu 1]

The intense, two-day networking forum Vaasa Wind Exchange & Solar is the largest expert event in Finland in the trade. The event now arranged for the seventh time as part of the Vaasa EnergyWeek focuses on wind and solar power, and consists of an exhibition, briefings and a seminar. The event is once more expected to attract more than a thousand visitors from Finland and the rest of Europe.

PROGRAMME

VAASA WIND EXCHANGE & SOLAR OPENING

11:00 Opening speech

Miapetra Kumpula-Natri, Member of the European Parliament, Member of the Committee on Industry, Research and Energy (ITRE), EU Commission.

SEMINAR AND PANEL DISCUSSION 11.30 - 13.15

ZERO ANTHROPOGENIC GREENHOUSE GAS EMISSIONS BEFORE 2050

Moderator: **Darius Snieckus**, Editor-in-chief at Recharge

11.30 The role of media in the energy switch. Media has a strong role affecting the common opinion related to the energy switch. In order to understand the whole field of energy, a vast competence is required. Do media have time to penetrate these complicated issues?

Darius Snieckus, Editor-in-chief at Recharge

11.45 What is the Energy Union? The role of the Energy Union in the EU energy politics. How does EU contribute to the commitments of the Paris Agreement?

Miapetra Kumpula-Natri, Member of the European Parliament, Member of the Committee on Industry, Research and Energy (ITRE), EU Commission

12:00 Finnish energy politics. The Finnish government's greenhouse gas reduction targets and required policy for fulfilling the commitments of the Paris Agreement.
Ville Niinistö, Member of Parliament, chairperson of the Greens

12:15 For a cleaner world – transformation of the energy sector. Fortum's vision "For a cleaner world" reflects the ambition to drive the transformation towards a low-emission energy system and optimal resource efficiency. What does reshaping the energy system mean in practice?

Kari Kankaanpää, Senior Manager Climate Affairs, Fortum

12:30 Energy [R]evolution. The environmental organization road map towards energy production without greenhouse gases. Does this road map differ from the Energy Union's?

Sini Harkki, Country Director, Greenpeace

12:45 Panel discussion

SEMINAR AND PANEL DISCUSSION 14.00 - 15.30

ELECTRICITY GRID FOR FUTURE ELECTRICITY GENERATION UTILIZING MORE RENEWABLES

Moderator: **Adrian Timbus**, Technology & Solution Manager, Smart Grids and Wind Power, ABB

14.00 Power systems with high penetration of renewables. Renewable energy production is intermittent, decentralized and smaller scale. The future electricity grid that utilizes more renewables is different.

Adrian Timbus, Technology & Solution Manager, Smart Grids and Wind Power, ABB

14.15 Renewables in the national transmission system. What are the challenges and limits of the national transmission system with an increased use of renewables?

Petri Parviainen, Customer Manager, Grid Services, Fingrid

14.30 Trading of renewable electricity. In Denmark, an average of 40% of the electricity is generated by wind power. Practical experiences from trading electricity in a grid with more than 40% wind power.

Sten Lillienau, Key Account Manager Nordic at Neas Energy

14.45 Neo Carbon Energy. New opportunities in electricity generation with an increased use of renewables. Alternatives to energy storage.

Pasi Vainikka, Principal Scientist, VTT Technical Research Centre of Finland

15.00 Panel discussion

KEYNOTE SPEAKERS



MIAPETRA KUMPULA-NATRI

Member of the European Parliament, Member of the Committee on Industry, Research and Energy (ITRE), EU Commission

Energy, digital markets and sustainable future are matters close to Miapetra's heart. She is currently working as a rapporteur on the Wholesale roaming markets report that calls for a more coherent and fair use of telecommunication within Europe.



DARIUS SNieckus

Editor-in-chief, Recharge

A journalist with over 20 years of experience covering the global energy sector. Snieckus wrote for several high-profile oil and gas titles before joining Recharge in 2009. He has chaired panels at major industry conferences around the world run by the foremost international Wind energy associations.



VILLE NIINISTÖ

Member of Parliament, chairperson of the Greens

Ville Niinistö served as the Minister of the Environment in Finland from 2011 to 2014.



KARI KANKAANPÄÄ

Senior Manager Climate Affairs, Fortum

Kari Kankaanpää has profound expertise and experience in energy sector sustainability and public affairs issues. He is following climate and energy policies at national, EU and global level, and is involved in several industry associations and coalitions. He has an M.Sc. in Environmental and Chemical Engineering.



SINI HARKKI

Country Director, Greenpeace

Sini has a master's in administrative sciences, and long experience in environmental issues and campaigning.



ADRIAN TIMBUS

Technology & Solution Manager, Smart Grids and Wind Power, ABB

Adrian Timbus received his master's and doctoral degree from Aalborg University in Denmark. Since 2007, he has held several positions at ABB and has been working with renewables for more than a decade. His expertise includes product and systems design, control and automation, and grid integration.



PETRI PARVIAINEN

Customer Manager, Grid Services, Fingrid plc

Petri Parviainen has experience in grid business, planning, and operation since 1990 at the Finnish national grid company, Fingrid. His responsibilities are grid services including customer care, grid connection, and transmission business issues.



STEN LILLIENAU

Key Account Manager Nordic, Neas Energy

Sten Lillienau has a broad background within the green and renewable industry sector. Apart from his position at Neas Energy, he has worked for Thermia/Danfoss heat pumps and Metso Paper, and has served as Sector Expert Energy & Environment at the Danish Trade Council.



PASI VAINIKKA

Principal Scientist, VTT Technical Research Centre of Finland

Dr Pasi Vainikka works as Principal scientist at VTT Technical research centre of Finland Ltd, and he holds the position as Adjunct professor at Lappeenranta University of Technology (LUT). He is a responsible leader of the Neo-Carbon Energy project – the largest renewable energy research project in Finland so far.



Contact

Got a question? Ask Hanna:

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VAASA WIND EXCHANGE & SOLAR

#WindSolar
#EnergyWeek

SEMINAR



Wednesday March 22, 10:30-14:45
Vaasa City Hall (Senaatinkatu 1)

PROGRAMME

WIND POWER

SEMINAR AND PANEL DISCUSSION 22 MARCH 2017

10.30 - 12.30

Moderator: **Joël Meggelaars**, Head of Advocacy & Messaging, Wind Europe

10.30 Wind power in Europe.

Is the wind power in Europe in continuous growth or a stagnating business? Forecast

Joël Meggelaars, Head of Advocacy & Messaging, Wind Europe

11.00 Status and future of wind power in Finland.

Installed wind power over the years. Will the trend continue or will there be a halt due to a lacking support system?

Jari Suominen, Finnish Wind Power Association

11.15 Lifecycle management of wind farm electrifications in the Nordic countries.

Are there special requirements on wind farm electrification in cold climates? What specialties need to be considered in electrical lifecycle maintenance and proactive actions for Nordic wind farm's?

Esa Ala-Honkola, Vice President Expert Services, VEO Oy

11.30 Wind resource assessment in cold climates.

Challenges and mitigation with wind resource assessment in cold climates. The performance of turbines in cold climates may be significantly reduced by ice accretion on the blades.

Hugues Fournier, Head of Section for Offshore & Scandinavia, DNV GL, United Kingdom

11.45 IEA Wind Task 19 contribution.

Wind power in cold climates has a huge potential. Despite the fact that wind power has been constructed in cold climates for decades, there is still a lack of standardisation and understanding. What can IEA Wind Task 19 do to improve the situation?

Ville Lehtomäki, Senior Scientist, VTT Technical Research Centre of Finland

12.00 Panel discussion

SOLAR POWER

SEMINAR AND PANEL DISCUSSION 22 MARCH 2017

13.00 - 14.45

Moderator: **Karoliina Auvinen**, Director of FinSolar project and Stakeholder Relations Manager of Smart Energy Transition project, Aalto University

13.00 Solar power in Finland.

Feasibility of solar power in Finland. Do we have grid parity with solar power in Finland? Are energy storage systems crucial for the solar power?

Karoliina Auvinen, Director of FinSolar project and Stakeholder Relations Manager of Smart Energy Transition project, Aalto University

13.15 Solar Photovoltaics [PV]

Solar PV technology from Finland. Energy production during the day and consumption in the evening. The need of energy storage system and balance management for solar PV.

Miko Huomo, Partner, GreenEnergy Finland Oy

13.30 Solar photovoltaic.

Finnish solar panel manufacturing competing with mass production in China, is it possible? How would the system work in existing buildings, residential, industrial and general power production?

Pasi Kautonen, Marketing Manager, Valoe Oyj

13.45 Large scale solar power.

Experiences from large scale solar power in Finland. Will the levelized cost of energy with solar power in Finland be lower than spot electricity price? What are the most advanced solar power products on the market?

Atte Kallio, Project Director, Helen Oy

14.00 Solar power in the Nordic power market.

An increased use of solar power switches trading from day-ahead market towards intraday market. How much solar power can be incorporated in the Nordpool system?

Riku Merikoski, Analyst, SKM Market Predictor

14.15 Panel discussion

KEYNOTE SPEAKERS



JOËL MEGGELAARS

Head of Advocacy & Messaging, Wind Europe
Master in International & European Law, Joël coordinates WindEurope's lobbying and press activities in Brussels and EU Member States. The legislative proposals put forward by the European Commission on power market design and renewables deployment towards 2030 are the top priority for his team in 2017. He also represented the European wind industry at international and UN climate talks.



JARI SUOMINEN

Finnish Wind Power Association

Jari Suominen is the CEO of the Renewable energy business units of St1, and in charge of the company's renewable energy business in Finland, Sweden, and Norway. Since 1981, he has been filling leading positions at ExxonMobil, and since 2007 at St1 within areas related to fuel, electricity and heat generation. He also holds several public offices within the trade.



ESA ALA-HONKOLA

Vice President Expert Services, VEO Oy

Esa Ala-Honkola has over a decade of experience in the renewable energy sector. Since 2011, he has concentrated on maintenance and product lifecycle services. He specializes in electrification, automation system usability, and PLM services.



HUGUES FOURNIER

Head of Section for Offshore & Scandinavia DNV GL, United Kingdom

Hugues Fournier has over a decade of experience in the wind industry in, among others, Scandinavia, South America, France, and the United Kingdom. He holds an M.Sc. in Environmental Science, specializing in Renewable Energy, from the University of Paris VII Denis-Diderot.



VILLE LEHTOMÄKI

Senior Scientist, VTT Technical Research Centre of Finland

Ville Lehtomäki has been part of the VTT Wind Power team since 2009, focusing on coordinating and developing new projects and technology innovations. He specializes in icing effects on wind turbines. He is on a mission to unlock the potentials of cold climates to the wind industry.



KAROLIINA AUVINEN

Director of FinSolar project and Stakeholder Relations Manager of Smart Energy Transition project, Aalto University

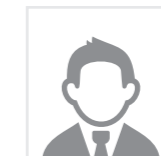
Karoliina Auvinen, M.Sc. (tech.) has more than 15 years of experience in clean energy and climate change mitigation work in new business sector development and market creation.



MIKO HUOMO

Partner, GreenEnergy Finland

Miko Huomo represents the field of industrial automation and nanotechnology. Since 2012, he has been involved in creating the foundation of Finland's GreenEnergy business model in distributed energy production and balance management.



PASI KAUTONEN

Marketing Manager, Valoe Oyj

Pasi Kautonen is an expert in marketing, sales and business development. He holds an M.Sc. degree in Industrial Engineering (Innovation and Technology Management, LUT), and is currently taking his BBA degree in International Business at the Helsinki School of Economics HSE.



ATTE KALLIO

Project Director, Helen Oy

Atte Kallio has strong experience with business development, the energy industry, and project management. He has been responsible for building two of the largest solar power plants in Finland, developing several new products for Helen Ltd, and leading many other smart and clean energy programmes.



RIKU MERIKOSKI

Analyst, SKM Market Predictor

Riku works for one of the leading power market analysis companies in the Nordic, Baltic, and Russian markets. He has also worked as a portfolio manager and analyst at Tampereen Sähkölaitos.



Got a question? Ask Hanna:

HANNA NYHOLM

Pohjanmaan Expo Oy
hanna.nyholm@pohjanmaanexpo.fi
+358 (0) 400 691 681



VAASA WIND EXCHANGE & SOLAR

#WindSolar
#EnergyWeek

EXHIBITION

March 21 - 22 (Tuesday 10-17, Wednesday 10-15)
Vaasa City Hall

Vaasa Wind Exchange & Solar is an international exhibition, networking and seminar event for wind and solar power and renewable energy solutions. The event is arranged for the seventh time this spring as a part of the EnergyWeek. Get to know the latest developments in the business, meet the experts, decisionmakers, partners and colleagues of the trade in Vaasa! This event is arranged by Pohjanmaan Expo Oy.

EXHIBITOR'S BRIEFINGS

Tuesday 21.3.2017

- 11.30** *Solar heat in the arctic winter*
Timo Sivula, Senior Vice President
Heliostorage
- 12.00** *Distributed energy production-demand for smart grid solutions*
Miko Huomo, Executive Partner
GreenEnergy Finland Oy
- 13.00** *36 years of solar innovations – what have we learned*
Markus Andersén, Sales Director
Naps Solar Systems Oy
- 14.00** *VTT Wind and Solar innovation activities and offering*
Paljakka Matti, Key account manager
VTT Technical Research Centre of Finland
- 14.30** *10 years of experiences with calculation of production losses caused by icing*
Lars Tallhaug, Managing director (MD),
Kjeller Vindteknikk AS
- 15.00** *Windenergy Auction Price Sensitivity Simulations*
Staffan Asplund, Managing Director
Etha Wind Ltd

Wednesday 22.3.2017

- 11.00** *Distributed energy production-demand for smart grid solutions*
Miko Huomo, Executive Partner
GreenEnergy Finland Oy
- 11.30** *How to shift to renewable energy systems in sparsely populated areas?*
Jakob Nymann Rud, Head of Section, Energy
Planning, District heating
Torill Meistad, Senior Adviser
Nordic Energy Research
- 12.00** *36 years of solar innovations – what have we learned*
Markus Andersén, Sales Director
Naps Solar Systems Oy
- 12.30** *What influences the power price and what can you do to maximize your value?*
Sten Lillienau, Key Account Manager
Neas Energy A/S

VAASA WIND EXCHANGE & SOLAR PARTNER



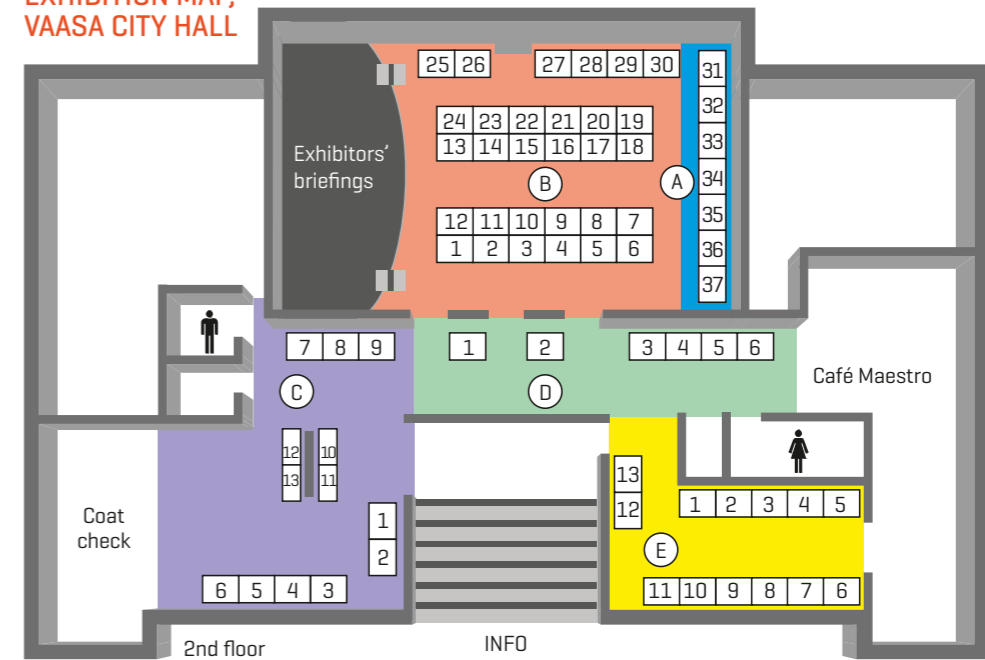
Contact

Got a question? Ask Hanna:
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Pohjanmaan Expo
hanna.nyholm@pohjanmaanexpo.fi
+358 (0) 400 691 681



VAASA WIND EXCHANGE & SOLAR EXHIBITORS

EXHIBITION MAP, VAASA CITY HALL



WIND
A Logistics **B** Investors, developers, manufacturers, subcontractors, constructors
C Consulting, operators, maintenance, services **D** Municipalities, authorities, attorneys, associations

SOLAR
E Solar energy systems, equipment, components, consulting, services

LOGISTICS

OY BLOMBERG STEVEDORING AB WWW.BLOMBERG.FI	A36	E12 ATLANTICA TRANSPORT WWW.VASEK.FI	A35
SILVASTI WWW.SILVASTI.COM	A37	THE CITY OF VAASA, DEVELOPMENT OF LOGISTICS / NLC – NORDIC LOGISTIC CENTER WWW.VAASA.FI / WWW.NLCVAASA.FI	A35
KVARKEN PORTS LTD WWW.KVARKENPORTS.COM	A35		

INVESTORS, DEVELOPERS, MANUFACTURERS, SUBCONTRACTORS, CONSTRUCTORS

ABB WWW.ABB.COM	B7	DNV GL ENERGY WWW.DNVGL.COM/ENERGY/	B17
GE RENEWABLE ENERGY WWW.GE.COM/FI	B25	ELTEL NETWORKS OY WWW.ELTELNETWORKS.COM	B6
AMPNER OY WWW.AMPNER.COM	B26	ENERCON GMBH WWW.ENERCON.DE	B9-10
AXPO FINLAND OY WWW.AXPO.COM	B4	ESCARMAT LTD OY WWW.ESCARMAT.COM	B21
BAZE TECHNOLOGY A/S WWW.BAZETECHNOLOGY.COM	C1	FINGRID OYJ WWW.FINGRID.FI	B23-24
BLADEFENCE WWW.BLADEFENCE.COM	B12	GAMESA WWW.GAMESACORP.COM	B1-2
CO-ENGINEERING OY WWW.CO-ENGINEERING.FI	B8	LAGERWEY SYSTEMS B.V. WWW.LAGERWEY.COM	B29

NORDEX ENERGY GMBH FINNISH BRANCH
WWW.NORDEX-ONLINE.COM

B 13-14



TEKNOLOGIAN TUTKIMUSKESKUS VTT OY - VTT TECHNICAL RESEARCH CENTRE OF FINLAND LTD
WWW.VTT.FI

B 16



OBELUX OY
WWW.OBELUX.COM

B 3



TERMA A/S
WWW.TERMA.COM

B 27



PEIKKO FINLAND OY
WWW.PEIKKO.FI

B 18



VAISALA OYJ
WWW.VAISALA.COM/ENERGY

B 22



PROPLATE OXELÖSUND AB
WWW.PROPLATE.SE

B 19



VEO OY
WWW.VEO.FI

B 5



ROSE HOLM A/S
WWW.ROSEHOLM.DK

B 19



VESTAS
WWW.VESTAS.COM

A33



SIEMENS
WWW.SIEMENS.FI

B 30



CONSULTING, OPERATORS, MAINTENANCE, SERVICES

CRAMO FINLAND OY
WWW.CRAMO.FI

C 3



KJELLER VINDTEKNIKK AB
WWW.VINDTEKNIKK.SE

C 6



ETHA WIND OY AB
WWW.ETHAWIND.COM

C 1



KPMG OY AB
WWW.KPMG.FI

C 5



FCG SUUNNITTELU JA TEKNIikka OY
WWW.FCG.FI

C 7



NORTHWIND CONSULTING OY
WWW.NORTHWINDCONSULTING.FI

C 2



FORTUM
WWW.FORTUM.COM

C 4



PORI ENERGIA OY
WWW.PORIENERGIA.FI

B 15



HAFMEX OY
WWW.HAFMEX.FI

B 28



RAMIRENT FINLAND OY
WWW.RAMIRENT.FI

B 11



JBE SERVICE OY
WWW.JBESERVICE.FI

C 8



WIND CONTROLLER JV OY
WWW.WINDCONTROLLER.FI

C 9



MUNICIPALITIES, AUTHORITIES, ATTORNEYS, ASSOCIATIONS

BERGMANN ATTORNEYS AT LAW
WWW.BERGMANN.FI

D 6



NEAS ENERGY A/S
WWW.NEASENERGY.COM

B 20



FLANDERS INVESTMENT & TRADE
WWW.FLANDERSINVESTMENTANDTRADE.COM

D 3



SUOMEN TUULIVOIMAYHDISTYS RY - FINNISH WIND POWER ASSOCIATION
WWW.TUULIVOIMAYHDISTYS.FI

D 1



INVEST IN FINLAND, FINPRO
WWW.FINPRO.FI

D 2



THE CITY OF VAASA - VAASAN KAUPUNKI - VASA STAD
WWW.VAASA.FI

C 10-11



THE MUNICIPALITY OF KORSHOLM - KORSHOLMS KOMMUN - MUSTASAAREN KUNTA
WWW.KORSHOLM.FI

C 10-11



SOLAR ENERGY SYSTEMS, EQUIPMENT, COMPONENTS, CONSULTING, SERVICES

ETELÄ-SAVON ENERGIA OY
WWW.ESE.FI

E 10



NAPS SOLAR SYSTEMS OY
WWW.NAPSSYSTEMS.COM

E 11



GREENENERGY FINLAND OY
WWW.GEF.FI

E 13



ORIMA-TUOTE OY
WWW.ORIMA.FI

E 2



HELIOSTORAGE, DOUBLE M PROPERTIES
WWW.HELIOSTORAGE.COM

E 12



SOLARBIOX OY
WWW.SOLARBIOX.FI

E 1



ENERGY BUSINESS FORUM

#EnergyBusiness
#EnergyWeek

SEMINAR



Tuesday March 21, 12:30-17:10
Ritz, Kirkkopuistikko 22

GREAT BRITAIN, USA, CHILE, ESTONIA, HONG KONG, MEXICO, SCOTLAND, SWEDEN, TUNISIA
The Energy Business Forum highlights the energy sector investments and business opportunities in selected countries. It is a unique opportunity to learn more and establish the best contacts in the present energy market hot spots!

International Contacts & Business in Energy-Cleantech-Investments-R&D Sectors

PROGRAMME

12:00 Registration	15:25 SCOTLAND Mr. Stephen Fox , CEO. Panliska LTD "Scotland-opportunities after BREXIT"
13:00 Welcome and opening of the event Mr. Tomas Häyry , Mayor of Vaasa. City of Vaasa Ms. Sarah Price , British Ambassador to Finland. British Embassy Helsinki Ms. Donna A Welton , Charge d'Affaires. U.S. Embassy in Helsinki Mr. Joakim Strand , Member of Parliament/Chairman of Vaasa City Council. The Finnish Parliament	15:45 ESTONIA Ms. Marit Sall , Cleantech Innovation Lead. Startup Estonia "Estonian Cleantech startups and programs. What cooperation is offered to bigger energy companies?" Mr. Sulev Alajõe , Investor consultant, West Estonia. Estonian Investment Agency "Estonian economic ecosystem at a Glance. Developments in the energy sector, important aspects for the attention of Nordic companies"
13:20 GREAT BRITAIN Mr. David Cairns , British Ambassador to Sweden. British Embassy Stockholm "Business and investment opportunities in the energy sector in the UK"	16:15 SWEDEN Mr. Peter Hedman , Project Manager. Cleantech Kvarken and Cleaner Growth, Kompetensspridning i Umeå "Cross-border cooperation in business development and internationalisation"
13:40 CHILE Mr. Daniel Mora , Deputy Chief of Mission Embassy of Chile. Embassy of the Republic of Chile in Finland	16:30 FINLAND Mr. Sami Gräsbeck , Global Director. Jukolux Oy "Industrial luminaires for hazardous locations" Mr. Rune Westergård , Entrepreneur and Author. Citec Oy Ab. "One planet is enough" Mr. Sture Udd , CEO. UpCode/ UPC Centre "The future of international business"
13:50 USA Mr. Justin Dutram , Director of Business Development. Tech Parks Arizona Global Advantage: Business Expansion Opportunities in Arizona for Clean Tech Companies	17:00 MEXICO Mr. Johan Wasberg , Development Director. Technology Centre MERINOVA "Low Carbon Business Action Opportunities in Mexico"
14:15 TUNISIA Mr. Chiheb Rebai , Deputy Chief Executive Officer. SACEM "SACEM GROUP, Towards Product Line Extension for Africa and Middle East"	17:10 Conclusions
14:35 Refreshments and Energy Business NETWORKING	17:15 Refreshments and Energy Business NETWORKING
15:05 HONG KONG Mr. Mats Gerlam , Investment Promotion Executive in the Nordics. Invest Hong Kong "Business opportunities in China/Hong Kong within the energy and cleantech sector"	18:00 End of the event

WELCOME WORDS BY



SARAH PRICE

British Ambassador to Finland. British Embassy Helsinki. Great Britain

Sarah Price is the British Ambassador to Finland since 2013. She has also served in Helsinki in two previous occasions, in 1992 and 1999, as well as in Belgrade and Prague, among other things. Ms Price joined the Foreign and Commonwealth Office in 1990.



MS. DONNA A WELTON

Charge d'Affaires. U.S. Embassy in Helsinki. USA

Donna A Welton arrived at the U.S. Embassy in Helsinki in August 2016 following a detail to the Department of Defense as the acting Director for Southeast Asia in the Office of the Secretary of Defense (Policy). She returned to the Foreign Service in 2000, serving in public diplomacy positions in Tokyo, Nagoya, Washington, and Jakarta and as Consul General in Sapporo, Japan.



TOMAS HÄYRY

Mayor of Vaasa. City of Vaasa. Finland

Tomas Häyry is the Mayor of the City of Vaasa and was appointed Mayor in August 2011. Prior to this he served as Acting Mayor, Director of the Technical Sector, and Director of City Planning and Development.



JOAKIM STRAND

Member of Parliament/Chairman of Vaasa City Council. The Finnish Parliament. Finland

Joakim Strand is a member of the Finnish Parliament since 2015. He is a member of Vaasa City Council since 2005 and the Chairman of Vaasa City Council since 2012. Mr. Strand is also the Chairman of the Board of the Regional Council of Ostrobothnia, the Kvarken Council and Vaasan Sähkö Oy.



CHIHEB REBAI

Deputy Chief Executive Officer. SACEM. Tunisia
Chiheb Rebai is working for elaborating industry leading Smart Grid solutions with a diverse set of products in Africa, Middle-East and Europe. He is

also a panelist for an accountable funding agency and TCP member in various scientific and industrial journals and conferences. Wind Energy, Energy Efficiency, Smart Grid, Micro Grid, Scada System, Waste to Energy.



MARIT SALL

Cleantech Innovation Lead. Startup Estonia. Estonia

Marit Sall is passionate about building a collaborative platform, that helps to foster the cleantech entrepreneurial ecosystem. She is leading the world's largest cleantech business ideas programme, ClimateLaunchpad in Estonia, and manages Europe's main climate innovative initiative - Climate-KIC activities in Estonia. She is the contact person for international partners interested in cleantech.



MATS GERLAM

Investment Promotion Executive in the Nordics. Invest Hong Kong. Hong Kong

"Business opportunities in China/Hong Kong within the energy and clean tech sector". "Mats Gerlam has been assisting Nordic based companies in their internationalization since 2003. Many Cleantech companies have shown interest in finding partners in Hong Kong since Asian countries are pushing the development of renewable-energy options (biomass, solar and wind power). Invest Hong Kong offers solution oriented investment promotion, facilitation and after care services to ensure that companies have all the support required to establish or expand operations in Hong Kong. Their services are free of charge."



PETER HEDMAN

Project Manager. Cleantech Kvarken and Cleaner Growth. Kompetenspridning i Umeå. Sweden

Peter Hedman is the Project Manager of the Cleantech Kvarken and the Cleaner Growth projects. During the last 20 years, he has been working in leading positions in Västerbotten County Council, Region Västerbotten, Regionakademien, Uminova Innovation AB and other organisations.



SAMI GRÄSBECK

Global Director. Jukolux Oy. Finland

Jukolux Oy has developed new solutions for energy efficient LED lighting in hazardous locations and industrial environments. Sami Gräsbeck will present the company's latest innovations that will turn lighting into much more than just light.



RUNE WESTERGÅRD

Entrepreneur and Author. Citec Oy Ab. Finland
Rune is the founder of the technical consulting company CITEC. Today, the company employs 1300 people in 11 countries and operates mainly

in field of power plant solutions: "My company has been involved in hundreds of international environmental - and power plant projects. In this way, I have personally witnessed the consequential improvement of people's health and welfare - all over the world - when provided with electricity. During my professional career, I realised that it is quite possible to solve energy and environmental problems, and that the industry can play a leading role when working in cooperation with well-balanced governmental control"



STEPHEN FOX

CEO. Panliska LTD. Scotland

Stephen Fox is a former Senior Scottish Government official and diplomat with extensive EU policy experience in Brussels. He now runs his own business in Edinburgh, specialising in making connections for supply chain links between companies in the energy and other cleantech sectors. He can explore business opportunities, partner searching and screening, B2B contacts and generally support for doing business in Scotland. He also helps to build international consortia for the EU R&I programme HORIZON 2020.



STURE UDD

CEO. UpCode/UPC Centre. Finland

Sture is the founder and CEO of UpCode, which offers innovative end to end solutions based on AutoID of items, people, documents, processes, etc. UpCode is today worldwide recognized for autoID and autoReport system specially used in lifecycle management. UpCode is a part of the UPC Center, which also comprises UPC Print, UPC Media, Bock's Corner Brewery and Bock's Corner Village. UPC exports worldwide.



SULEV ALAJÕE

Investor consultant, West Estonia. Estonian

Investment Agency. Estonia
Estonian economic ecosystem at Glance. Developments in energy sector, value for attention of Nordic companies. "Sulev Alajõe serving foreign companies and landing investments since 2012, former Vice Mayor from Pärnu, sister city of Vaasa. Estonia: small country's flexible advantages for business expansions, propositions in energy related matters, references."



JOHAN WASBERG

Development Director. Technology Centre

MERINOVA. Finland
Johan Wasberg is responsible for internationalization activities in Technology Center Merinova. During the last 25 years, he has worked with international cooperation in Africa, Australia and Europe. His presentation will focus on the business opportunities in the European Union - funded Low Carbon Business Action initiatives in Mexico.

KEYNOTE SPEAKERS



DAVID CAIRNS

British Ambassador to Sweden. British Embassy Stockholm. Great Britain

David Cairns is the British Ambassador to Sweden and the FCO's Director for the Nordic Baltic Region. Prior to Sweden, he has served in Japan and Geneva and held a number of positions in London. Mr Cairns joined the Foreign and Commonwealth Office in 1993. In his presentation, Ambassador David Cairns will discuss the UK energy sector and the business, investment and cooperation opportunities for Finnish and Swedish companies in the UK, as well as the work the UK does around climate change and energy issues in the Nordic Baltic Region.



MR. DANIEL MORA

Deputy Chief of Mission Embassy of Chile. Embassy of the Republic of Chile in Finland



JUSTIN DUTRAM

Director of Business Development. Tech Parks Arizona. USA

"Partnership for fast growing technology companies with market access to North America, product development support, manufacturing assistance, and business development through the comprehensive suite of services". "Justin Dutram is responsible for the attraction, expansion and retention of technology companies. Through the Global Advantage program, Tech Parks Arizona and Tucson, Arizona provide an ideal location for Finnish and Swedish advanced energy and cleantech companies to enter the US and North American markets, due to its geographic location and proximity to large markets; the region's world class technology sector strengths and product development support in advanced energy, optical sciences, aerospace and defense, and mining innovation; and high quality manufacturing solutions and business development support."



Contact

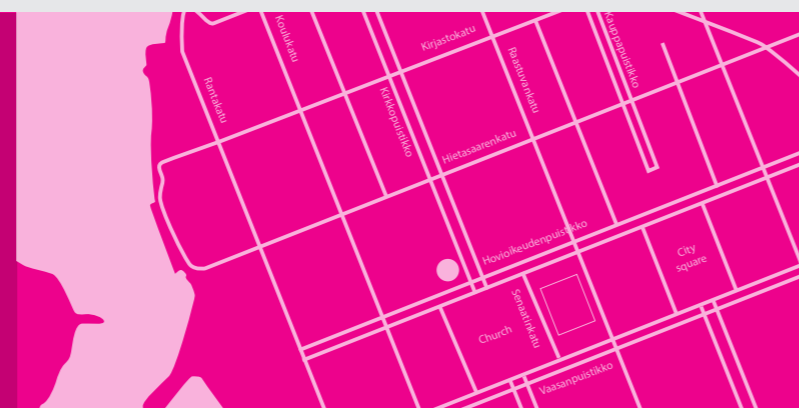
Got a question? Ask Triinu or Johan:

TRIINU VARBLANE

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JOHAN WASBERG

Technology Centre MERINOVA
johan.wasberg@merinova.fi
Tel. +358 [0] 40 346 4658



EVENT SPONSOR:
JUKOLUX.FI



ENERGY REGULATION

#EnergyRegulation
#EnergyWeek

SEMINAR



Wednesday March 22, 9:15-16:00



Restaurant Central, Hovioikeudenpuistikko 21, Vaasa

Energy regulation is in motion. Finnish gas markets and their regulation are going through a fundamental change: from monopoly to competition. This transformation is driven through a government decision to open-up Finnish gas markets. Significant changes are also taking place in electricity markets and the Finnish regulation in this area. The drivers of the change in the power markets are different from those of gas: technological change, concerns of security of supply and changes in the roles of consumers to prosumers are all part of the bigger picture requiring regulatory changes. ENERGY LAW IN MOTION will examine and discuss these trends from an academic, industry and regulators perspective.

PROGRAMME

ENERGY LAW IN MOTION: FUTURE TRENDS IN REGULATING FINNISH ENERGY MARKETS

- 9:15** Registration
- 9:45** Welcome words by Chair of the day, **Kim Talus**

PART I : THE FINNISH ELECTRICITY MARKETS

Future of Finnish electricity market regulation

What are the future trends in electricity markets? How will local distribution networks be regulated? Are we moving to demand based network tariffs? Who pays for security of electricity supply? What do the users of the power system think? These are among the questions that the Energy Law event will focus on.

Organised in cooperation with **EL-TRAN** research consortium

- 10:00** **The views of users: what do WE think?**
Pami Aalto, Professor, University of Tampere, Director of EL-TRAN research consortium
- 10:30** **Future electricity markets: how and where?**
Satu Viljainen, Senior Expert, Fingrid Oyj
- 11:00** **Demand based network tariffs**
Pertti Järventausta, Professor of Electrical Engineering, Tampere University of Technology
- 11:30** **Future changes and legal consequences**
Kim Talus, Professor of Energy Law, University of Helsinki and UEF Law School
- 12:00** Discussion and wrap-up
- 12:15** LUNCH

PART II: THE FINNISH GAS MARKETS

The new regulatory framework for the Finnish gas markets: industry views

The Finnish gas markets are about to change. This change is driven primarily through government intervention and introduction of a new legislative framework. The central idea of the new Gas Market Act is to allow new companies to enter the markets and compete with the incumbent. How is this new framework seen by the industry, users of gas and the regulator?

- 13:45** **Opening of the afternoon session**
Kim Talus
- 14:00** **Kristiina Vuori**
Vice President, Legal Affairs and Human Resources, Gasum Group
- 14:30** **Mikael Ohlström**
Senior Expert, Confederation of Finnish Industries - EK
- 15:00** **Antti Paananen**
Director, Energy Authority
- 15:30** Discussion and wrap-up
- 16:00** **Join us for Cocktails and get-together**
After the seminar, we invite You for cocktails and conversation at Restaurant Central hosted by **Roschier, Attorneys Ltd.**

KEYNOTE SPEAKERS



ANTTI PAANANEN

Director of Markets Unit, Energy Authority

Mr. Paananen has almost 20 years' of experience with energy market regulation by working at the Energy Authority. As the Director of Markets Unit he is responsible for the supervision and development of wholesale and retail markets for electricity and natural gas. In addition to being a member of working groups at ACER, CEER and NordREG, he has worked in several ad hoc committees set by the Ministry of Economic Affairs and Employment for preparing national energy market legislation.



MIKAEL OHLSTRÖM

Chief Policy Adviser with the responsibility of energy and climate policy related lobbying, Confederation of Finnish Industries EK

Mr. Ohlström has a M.Sc. degree in Energy Technology and Environment Protection from Aalto University. He represented EK in the working group which canvassed the reform of the Natural Gas Market Act, appointed by the Ministry of Economic Affairs and Employment.



PAMI AALTO

Professor of International Relations at the School of Management, University of Tampere

Mr. Aalto leads a large consortium funded by the Strategic Research Council, which examines the transition of the electric energy system into a more resource effective and climate neutral direction.



KRISTIINA VUORI

Vice President in charge of Legal Affairs and Human Resources, Gasum Group

Ms. Vuori is specialized in sector-specific legislation and competition law. She has participated in many M&A projects restructuring the gas and energy markets and various co-operation and other commercial arrangements between different market players. Ms. Vuori acted as an expert representative in the working group set by the Ministry of Economic Affairs and Employment for the preparation of the new Natural Gas Market Act.



PERTTI JÄRVENTAUSTA

Professor and leader of the laboratory of Electrical Energy Engineering, Tampere University of Technology

The main interest focuses on the issues of Smart Grids from the grid and electricity market point of view. Mr. Järventausta has M.Sc. (Tech.) and Lic.Sc. (Tech.) degrees in Electrical Engineering from Tampere University of Technology and received the degree of Dr.Tech. in Electrical Engineering from Lappeenranta University of Technology.



SATU VILJAINEN

Senior Expert, Fingrid Oyj

Ms. Viljainen works with regulatory affairs and the European electricity market integration. She holds D.Sc. and M.Sc. degrees in electrical engineering from Lappeenranta University of Technology where she has worked as a professor of Electricity Markets. Her research interests included the Nordic, European and Russian electricity markets, consumer behavior in the Finnish electricity sector, and the economic regulation of electricity distribution networks.



KIM TALUS

Professor of Energy Law, UEF Law School and University of Helsinki

Dr. Talus is also the co-Director of the Center for Climate Change, Energy and Environmental Law and the Editor-in-Chief for OGEL. Dr. Talus acts as an Of Counsel at Eversheds Sutherland and has worked widely with energy issues from upstream oil and gas to renewable energy, waste-to-energy as well as energy efficiency related legal and regulatory matters for both governments and the industry.



Contact

Got a question? Ask Kim or Cea:

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University of Helsinki
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+358 (0) 50 442 3315

CEA MITTLER

University of Helsinki
cea.mittler@gmail.com
+358 (0) 40 9000 528

0101000
1101001

CYBER SECURITY & DIGITALIZATION

#CyberDigi
#EnergyWeek

SEMINAR

Wednesday March 22, 8:30-17:00
Ritz, Kirkkopuistikko 22

Today's society is heavily dependent on reliable production and transmission of energy. Without a constant energy supply the Internet wouldn't work for long, and without the Internet today's society wouldn't work for long. That's because there are so many online services available today and in many cases it would be hard, if not even impossible, to deliver the service without the Internet connection.

On the other hand, modern production and transmission of energy are heavily dependent on the Internet and ICT solutions. Different kinds of interconnected sensors, devices and information systems are used to control and measure modern power networks. If, for example, the data connection between the power station and the control room was disconnected or disturbed it might cause severe problems to the energy transmission. So it is vital to put enough effort on Cyber Security in the energy sector in order to keep today's society running.

Digitalization is changing our everyday living in many sectors, like we have seen in banking or retail markets. But it is a hot topic in the

energy sector too. Smart meters can collect the energy consumption data and smart appliances can be controlled remotely. How could the consumer data collected from smart meters be utilized in providing better services for end customers? What are the latest global trends on digital innovations in the energy sector? New digital innovations can change our everyday living by providing new ways to control our homes and appliances, but they can also help us conserve energy. All this requires proper ways to collect, store and process the data considering both Cyber Security and Privacy aspects.

PROGRAMME

CYBER SECURITY SESSION

- 8:30** Registration
- 9:00** Opening: Cyber security concerns everyone
Pekka Vepsäläinen, Development Manager, Jykes Oy
- 9:30** Cyber security in the Energy Sector
Mats Warg, Engineering Manager, VEO Oy
- 10:00** Research Collaboration with Energy Company: Case CIRP Project
Viivi Nuojua, Project Manager, Jyväskylän Energia Oy & University of Jyväskylä
- 10:30** EU GDPR - new responsibilities and liabilities for organisations
Charlotta Henriksson, Legal Counsel, KPMG Oy Ab
- 11:00** Panel Discussion
- 12-13** Lunch break

DIGITALIZATION SESSION

- 13:00** Opening of the afternoon session
- 13:15** Global views on Digital Innovations in Energy Sector
Ari Tolonen, CEO Northern Europe, Landis+Gyr
- 13:45** Datahub
Pasi Aho, Managing Director, Fingrid Datahub Oy
- 14:15** Coffee & Networking Break
- 15:00** 10 Things Utilities Could Do With Customer Data
Lauri Anttila, Business Development Manager, Futurice Oy
- 15:30** Digitalization of Power Distribution
Tuomas Vanhanen, Area Sales Manager, ABB Oy
- 16:00** Digitalization: Real world IoT success stories
Mathias Grädler, IoT-Ticket Product Manager, Wapice Oy
- 16:30** Closing remarks

KEYNOTE SPEAKERS

**PEKKA VEPSÄLÄINEN***Development Manager, Jykes Oy*

Pekka Vepsäläinen is heading Cyber Security theme at Tekes's Innovative Cities program. He has advised and mentored organizations in different sectors from start-ups and SMEs to larger organizations about how to take cyber security as part of everyday operations and innovation development. He emphasizes the role of each individual as a success factor in Cyber Security of organizations.

**MATS WARG***Engineering Manager Automation, VEO Oil and Gas power plants department*

Mats has more than 15 years of global working experience in the power plant and marine business. First working as Project Engineer with programming and commissioning tasks, later on as Engineering Manager. As engineering manager he has the task of coordinating the engineering resources with continuous development of their skills as well. An important role is to lead the technical development of the systems delivered and actively follow the new inventions available on the automation market.

**VIIVI NUOJUA***Project Manager, Jyväskylän Energia Oy, Project Researcher, University of Jyväskylä*

Viivi has a master's degree in statistics. She works three days a week at Jyväskylän Energia Oy, where she coordinates two cyber security projects and takes part in the overall cyber security development. In addition, she is a doctoral student and works two days a week at the University of Jyväskylä. Her specialties are cyber security and data analysis.

**CHARLOTTA HENRIKSSON***CIPP/E Certified Information Privacy Professional, Legal Counsel and the Head of Data Privacy Law Team of KPMG*

Charlotta has started working at KPMG Legal Services in June 2016 with the responsibility of leading the Data Privacy Law Team. She works with projects and assignments in the fields of data privacy law, GDPR and TMT law. Charlotta has over 10 years of professional experience in her fields of specialization, both as an attorney-at-law and as an in-house lawyer. Charlotta advises clients in all matters of data privacy law and GDPR including e.g. planning together with clients GDPR implementation strategies and advising in GDPR projects, examining and drafting data privacy agreements and documentation.

**ARI TOLONEN***CEO Northern Europe, Landis+Gyr*

Ari Tolonen currently serves as CEO Northern Europe of Landis+Gyr. Mr. Tolonen has responsibility for Landis+Gyr operations in Northern Europe region which include all Nordic (Finland, Sweden, Norway, Denmark, Iceland) and Baltic (Estonia, Latvia and Lithuania) countries. Mr. Tolonen has over 30 year expertise in ICT and Energy business, system and solutions.

**PASI AHO***Project Manager, Fingrid Datahub program, Managing Director, Fingrid Datahub Oy*

Pasi has over 20 years' experience from different TSO's business areas. He has been 10 years as manager of balance service department and deeply involved in the Nordic balance settlement harmonisation project. Last years he is more concentrated on the electricity retail market issues. Pasi was also Project Manager of Finnish datahub study in the year 2014.

**LAURI ANTILA***Business Development Manager, Futurice Oy*

Lauri has long history of developing new innovative things for energy companies. Before his current job at Futurice he worked at Elenia - the 2nd largest electricity distribution company in Finland - where he was responsible of designing new digital services for internal and external use.

**TUOMAS VANHANEN***Master of Science (tech), Area Sales Manager at ABB*

The reason that I'm active in the energy discussion is the need for well founded arguments on which direction Finland and EU should take when fighting global warming. There is need for objective discussion, argumentation and decision making. Important parts of the road map are Smart Grids and digitalization. Electric vehicles, demand response and other solutions can help us in building a sustainable future energy system.

**MATHIAS GRÄDLER***Product Manager for IoT-TICKET®, Wapice Oy*

Mathias helps transform industrial companies into digital champions to create a better future. With over 1.6 million users IoT-TICKET is a complete, modern and easy-to-use Internet of Things platforms. For more information visit IoT-TICKET.com



Contact

Got a question? Ask Pekka or Esko:

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ENERGY MATCH

#EnergyMatch
#EnergyWeek

OTHER

March 22-23, 10:00 - 16:00
Vaasa City Hall [Senaatinkatu 1]

Energy Match is a quick and easy way to meet potential cooperation partners. High speed meetings are perfect for first impressions and new contacts!

MATCHMAKING EVENT



ENERGY MATCH – WHAT TO DO?

1. Register in the online matchmaking tool, on 15 March 2017 at the latest.
www.b2match.eu/energymatch2017
2. Send meeting invitations to other participants, on 16 March 2017 at the latest. Note that you do not need to agree specific times to meet – the organizers schedule the meetings based on the participants' availability and accepted meeting invitations.
3. Receive your personal meeting schedule by email on 20 March 2017
4. Prepare for the meetings
5. Meet potential cooperation partners on 22-23 March 2017
6. After the event, give feedback about the event and the meetings to the event organizers

The event is free of charge, however registration is mandatory.

Energy Match is organized by Enterprise Europe Network, the largest business support organization in Europe, in cooperation with EnergyWeek organizers. We offer support before, during and after the event, e.g. by helping you to formulate an informative cooperation profile, accompanying you to your meeting, following up with each of the companies you have met during the matchmaking event, etc.



SALES CAFÉ

#SalesCafe
#EnergyWeek

OTHER

Wednesday March 22, 12:30-16:45
Hanken School of Economics, Kauppapuistikko 2
[entrance from Kirjastokatu 16]

Sales Café is in town again! Get the latest tips and tools for making your sales grow. Join to meet colleagues, professionals, and to strengthen your network. Get inspired, contribute, and pls. have a "take-away" to your own business!

PROGRAMME

12:00 Registration begins	15:15 Second session
13:00 Welcome to Sales Café	16:00 Break
13:15 Dr. Petri Parvinen's lecture	16:10 Panel discussion
14:15 First session Topic 1: Customer Analytics Topic 2: Networking As Sales Tool	16:45 Ending of the event
15:00 Break and changing of tables	

KEYNOTE SPEAKER



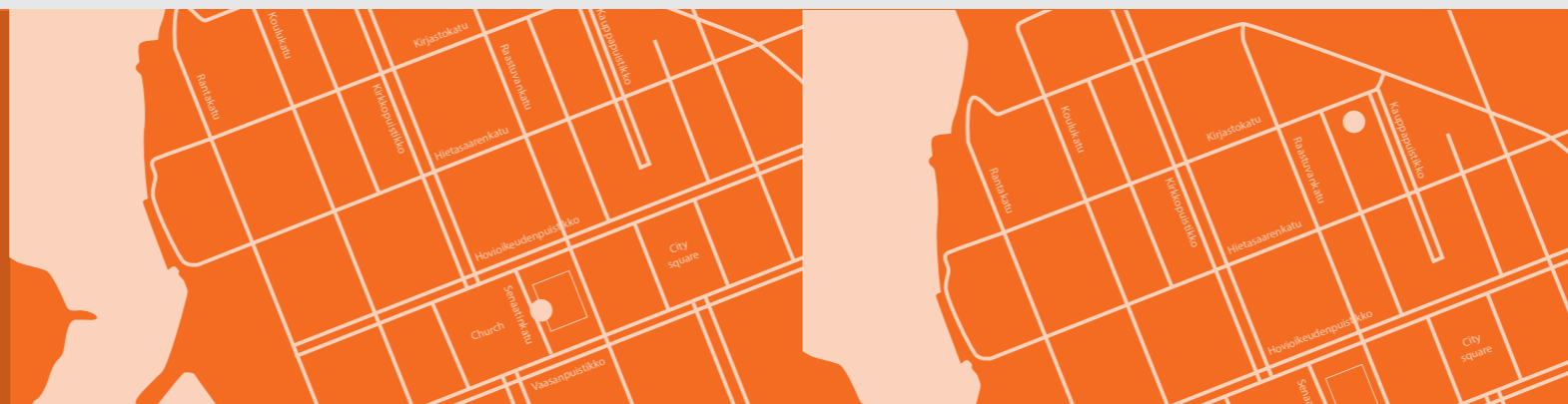
DR. PETRI PARVINEN
Professor of Strategic Marketing and Management
University of Helsinki, Finland
Dr. Parvinen works as Full Professor of Strategic Marketing and Management at the University of Helsinki and as part-time Professor of Sales Management at the Aalto University Department of Industrial Engineering and Management. Dr. Parvinen has worked with over 200 organizations, reinforcing commercial and business thinking particularly in environments where it has not spawned naturally. Dr.

Parvinen continuously works a multi-entrepreneur, salesman and consultant internationally. He has personally founded 14 companies and is keen to share his successes and failures e.g. as a Leader at the Aalto Venture Program and frequent Visiting Scholar at Stanford University. He is a popular worldwide lecturer, a non-executive director and a board member in various corporations. In a book review, Dr. Parvinen has been pegged "an academic enfant terrible, whose uncontainable power of expression is something new and fresh from the academic community".



Contact

Got a question? Ask Satu:
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Enterprise Europe Network
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Contact

Got a question? Ask Lasse or Pauliina:

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ENERGYSPIN FORUM

#EnergySpin
#EnergyWeek

SEMINAR

Thursday March 23 12:30-17:00
Festive Hall, Vaasa-opisto [Raastuvankatu 31]

EnergySpin is a forum where world class energy startups and talents meet with international investors and executives. EnergySpin Forum features top tier speakers ranging from business founders and experienced investors to simply fantastic people behind the newest success stories within business.



PROGRAMME

- | | |
|--|--|
| <p>12:30 Registration</p> <p>13:00 Welcome and opening speech: Energy Future Is Now
Jukka Viitanen, CEO, Resolute HQ,</p> <p>13:10 New Frontiers, Opportunities rising around the Globe
Marcelo Garcia, United Nations Smart Cities Expert and TMT Consultant; Strategy Execution Consultant in the areas of Smart Cities and Telecom, Expert with the UNECE PPP ICoE [United Nations Economic Commission for Europe; International PPP Centre of Excellence],TEDx Speaker</p> <p>Fireside Chat
Tapio Peltonen, Founder of EEX Oy
Mika Turpeinen, General Manager, Senior Energy Adviser, Swan Management Plc</p> <p>14:00 VC's and Accelerators Changing how the Game is played: Case Energy Storage
Akash Bhavsar, Managing Director of SkyQuest Technology Group, Chief Architect of the Sustainable Development Goals Accelerator [SDGA].</p> | <p>Fireside Chat
Jyri Arponen, Programme Manager, Tekes
Ph. D David Brown, CEO BroadBit Batteries</p> <p>14:40 EnergySpin – EnergyTech Business Accelerator Launch
Official launch of global energytech accelerator program starting in August 2017, Marko Koski, EnergySpin Operations</p> <p>Call for mentor network, Anna-Kaisa Valkama, Merinova, Program Director</p> <p>15:00 Break</p> <p>15:20 EnergySpin Top 30 Most Promising Energy Startups by Vaasa Entrepreneurship Society VES</p> <p>15:40 Pitching & Speed dating session
Pitching session moderated by Emmi Kaipio, CEO Nordic Innovation Accelerator, TEKES and VES Vaasa Entrepreneurship Society</p> <p>Speed dating by Tekes and VES Vaasa Entrepreneurship Society</p> <p>17:00 Networking with snack</p> |
|--|--|

MODERATOR



TAPIO PELTONEN
Founder of EEX Oy
EEX is a startup which provides learning and tools for strategic cooperation of large corporations and startups.

TOP 30 ENERGY STARTUPS



As a part of EnergySpin Vaasa Entrepreneurship Society (VES) presents the result of an analysis of a bunch of potential energy startups. Which are the most promising ones and which are the innovators of tomorrow?

KEYNOTE SPEAKERS



JUKKA VIITANEN
CEO, Resolute HQ
Building innovation future



MARCELO GARCIA
United Nations Smart Cities Expert and TMT Consultant
Strategy Execution Consultant in the areas of Smart Cities and Telecom, Expert with the UNECE PPP ICoE (United Nations Economic Commission for Europe; International PPP Centre of Excellence),TEDx Speaker.



AKASH BHAVSAR
Managing Director of SkyQuest Technology Group, Chief Architect of the Sustainable Development Goals Accelerator (SDGA)



MIKA TURPEINEN
General Manager, Senior Energy Adviser, Swan Management Plc
Mika Turpeinen has wide and deep understanding of energy sector in Africa. He has been residing in Ethiopia nearly a decade and been working in various positions in large multinational company ABB Ltd as well as founding two start-up companies in Ethiopia.



JYRI ARPONEN
Programme Manager, Tekes
Over twenty years of experience in business development, marketing and financing. Responsible of Cleanweb programme in Finnish Funding Agency

for Innovation, Tekes partnering companies with global networks, business accelerators and investors.



PH. D DAVID BROWN
CEO BroadBit Batteries, founding CEO of Canatu Inc
Ph. D David Brown, CEO BroadBit Batteries, founding CEO of Canatu Inc, Particle Stream Technologies, Teicos Pharma and StreamWise. More than 150 scientific articles, 200 patents and applications In 2014 and 2015, nomination for the European Inventor of the Year award.



MARKO KOSKI
Vaasa Region Development Company VASEK, EnergySpin - Energy Solutions Business Accelerator - Operations, FiBAN Finnish Business Angels area coordinator, startup enthusiast

Marko runs the EnergySpin accelerator program, which is intended for helping new startups and growth companies in boosting their international development and growth.



ANNA-KAISA VALKAMA
Technology Centre MERINOVA, Program Director
Anna-Kaisa Valkama leads development projects and is responsible for the preparation of the comprehensive energy projects. She has an extensive network, both internationally and nationally, and is particularly versed in electrical engineering.



EMMI KAIPIO
CEO, Nordic Innovation Accelerator
Nordic Innovation Accelerator is focused in clean-tech and offers the tools for corporates and investors to find the best dealflow from the Nordic countries.



Contact

Got a question? Ask Marko:

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WELCOME TO ENERGYWEEK!

How exciting! Here we are, in the Nordic energy capital, getting to know each other, learning about the hottest trends and topics in the energy sector, doing business and enjoying ourselves. It has been a year since the last EnergyWeek and a great deal has happened since then.

When I was studying power plant engineering fifteen years ago, wind power was seen as a very marginal energy production method, and so was solar power. Today, I am really happy to see that wind power is getting increasingly mainstream, and solar power is also becoming more popular. Alternative fuels are being studied all the time, energy saving has taken huge steps forward and grids are getting smarter. One of the most exciting topics that have raised discussion lately is energy storage and batteries. I bet you have noticed the news about Vaasa aiming for the Tesla Gigafactory?

Today, I am really happy to see that wind power is getting increasingly mainstream, and solar power is also becoming more popular.

This week is filled with fascinating topics, and I am sure that everyone in the energy sector can find a number of interesting events on the menu that we offer. The event organizers have done a fantastic job in putting these events together, and I want to thank all of them. I also want to thank the EnergyWeek partners who made this week possible. But most of all I want to thank you, the visitor, for being here in Vaasa and for making this week so special! I hope to see you here next year as well, on March 19th to 23rd.

HANNA ALAVILLAMO
COMMUNICATION & BRAND
MANAGER, ENERGYVAASA



VAASA GAS EXCHANGE

#GasExchange
#EnergyWeek

EXHIBITION

Thursday March 23 09:00-17:00
Vaasa City Hall [Senaatinkatu 1]

The Vaasa Gas Exchange [VGE] is an international networking event for energy experts, focusing on natural gas and biogas in all formats for power generation, transportation and shipping. The event will be held for the second time in 2017 and consists of an exhibition, an in-depth seminar and exhibitor briefings.

FIND OUT WHAT POSSIBILITIES BOOMING GAS MARKET OFFERS

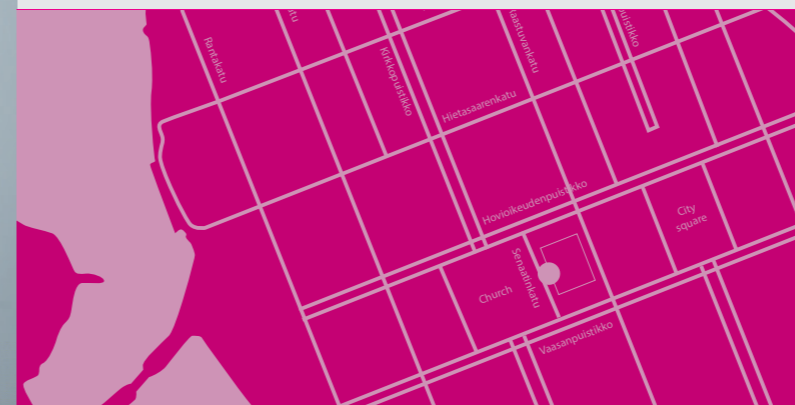
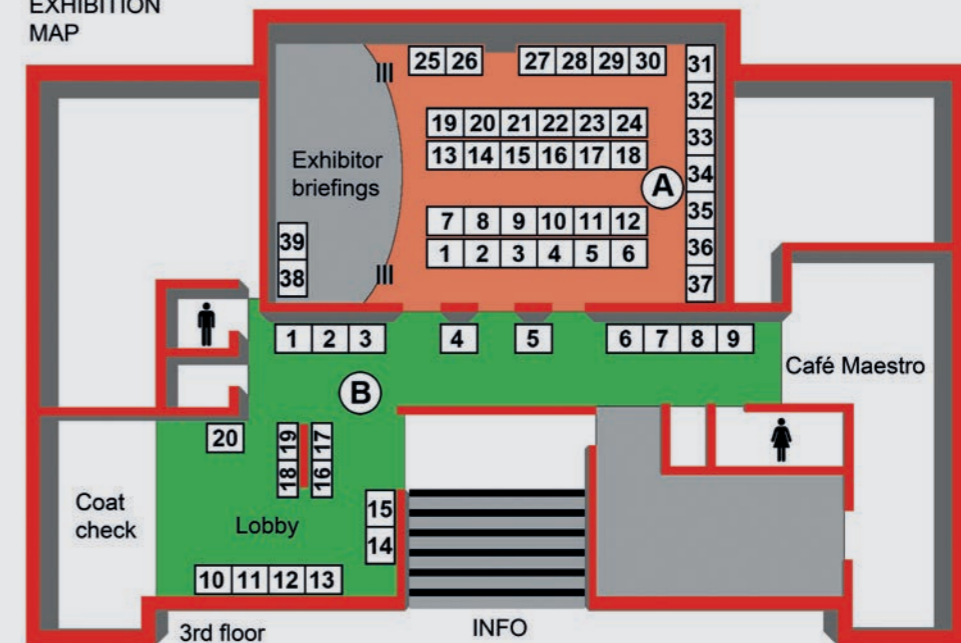
VGE is held in the rapidly growing regional gas cluster. The cluster has several active companies and actors working together with innovative projects such as a new energy laboratory and gas fueling stations.

At VGE, enterprises will have the opportunity to meet other actors, driving forces and potential partners from Finland and abroad. During the event visitors can find out what possibilities, challenges

and alternatives the booming gas market offers currently and in the near future.

VGE is organised by the Vaasa Energy Institute in partnership with Gasum, Merinova, Stormossen, University of Vaasa, VASEK, Wärtsilä and the Åbo Akademi University. More than 60 exhibitors have registered for 2017.

EXHIBITION
MAP



Contact

Got a question? Ask Teemu:
TEEMU NÄRVÄ
Vaasa Energy Institute
teemu.narva@vei.fi
+358 (0) 400 817 006

VAASA GAS EXCHANGE EXHIBITORS

AMMONGAS A/S WWW.AMMONGAS.DK	B6		GE ENERGY WWW.GEPOWER.COM	A24	
ASKALON AB, FILIAL I FINLAND WWW.ASKALON.FI	A32		GLS TANKS INTERNATIONAL GMBH WWW.GLSTANKS.COM	B7	
BEIJING FORTUNE HIGH CO., LTD. FORTUNEHIGH.COM	B16		HÖYRYTYS OY WWW.HOYRYTYS.FI	B14	
BEUP AUTOMATION OY WWW.BEUP.FI	A15		INSPECTA OY WWW.INSPECTA.COM	A33	Inspecta
BIOGTS OY WWW.BIOGTS.FI	B1		IPEC WWW.IPEC.FI	B3	iPEC
BRUGG-PEMA OY WWW.BRUGGPEMA.FI	B4		IVECO FINLAND OY WWW.IVECO.FI	A8	IVECO
CITY OF VAASA - LOGISTICS DEVELOPMENT UNIT WWW.VAASA.FI	A28		JEPPO BIOGAS AB WWW.JEPPOBIOGAS.FI	A7	
DETECTOR OY WWW.DETECTOR.FI	A13		KLINGER FINLAND OY WWW.KLINGER.FI	A11	
E12 ATLANTICA TRANSPORT WWW.KVARKEN.ORG/PROJECTS/E12/	A28		KLINKMANN OY WWW.KLINKMANN.FI	B20	KLINKMANN
ENDRESS+HAUSER OY WWW.FI.ENDRESS.COM	A35		KOKKO CONTROL OY WWW.KOKKO-CONTROL.FI	A10	
ENVIRONMENT & BIO SOLUTIONS AB ABEBS.SE	B7		KONTRAM OY WWW.KONTRAM.FI	B13	
ESCARMAT WWW.ESCARMAT.COM	A22		KOSAN GAS FINLAND OY WWW.KOSANGAS.FI	B5	
EVERSHEDS ASIANAJOTOIMISTO OY WWW.EVERSHEDS.FI	A9	EVERSHEDS	KOVARTEK OY WWW.KOVARTEK.FI	B11	
FESTO OY WWW.FESTO.COM	A12		KVARKEN PORTS LTD. WWW.KVARKENPORTS.COM	A28	
FIMUSKRAFT OY WWW.FIMUSKRAFT.COM	A36		KÄYTTÖAUTO OY WWW.KAYTTOAUTO.FI	B17	KÄYTTÖAUTO
FLAMKONTROLL AB WWW.FLAMKONTROLL.SE	A34		LNGTAINER LTD. WWW.LNGTAINER.COM	A19	
FUCHS OIL FINLAND OY WWW.FUCHS-OIL.FI	A29		MALMBERG WATER AB WWW.MALMBERG.SE	B14	
GASMET TECHNOLOGIES OY WWW.GASMET.COM	B2		MASINO INDUSTRY OY WWW.MASINO.FI/COMPANIES/MASINO-INDUSTRY-OY/	A20	
GASUM WWW.GASUM.FI	A6		NESTE JACOBS OY WWW.NESTEJACOBS.COM	B10	

NORDIC GAS SOLUTIONS AB WWW.NORDICGAS.COM	A4		TECON TEXTILE CONSTRUCTIONS GMBH WWW.TECON.BIZ	B7	
OILON OY WWW.OILON.COM	A30		TEKNOLOGIAN TUTKIMUSKESKUS VTT OY WWW.VTTRESEARCH.COM	A16	
RAMATOR OY WWW.RAMATOR.FI	B12		TONISCO SERVICE OY WWW.TONISCO.FI	A27	
RMV TECH OY WWW.RMV-TECH.COM	A37		TRANSALGAE, BOTNIA-ATLANTICA PROJECT WWW.BIOFUELREGION.SE/TRANSALGAE	A21	
ROSCHIER, ATTORNEYS LTD. WWW.ROSCHIER.COM	A23	ROSCHIER	UNIVERSITY OF VAASA WWW.UVA.FI	A5	
SCANIA SUOMI OY WWW.SCANIA.COM/FI/	B15		UWIRA OY WWW.UWIRA.FI	A26	
SICK OY WWW.SICK.COM/FI/FI/	A17		VAASA ENERGY INSTITUTE WWW.VEI.FI	A39	
SINTROL OY WWW.SINTROL.COM	B18		VAHTERUS OY WWW.VAHTERUS.COM	A25	
SIGA-TECH S.C. WWW.SIGATECH.PL	B7		VEHO OY AB WWW.VEHOTRUCKS.FI	B17	
SK PROTECT OY WWW.PROTECT.FI	B8		VISSMANN OY WWW.VIESSMANN.FI	B19	
STARLINE VALVES OY WWW.STARLINE.FI	A14		WESTENERGY OY AB WWW.WESTENERGY.FI	A2	
AB STORMOSSEN OY WWW.STORMOSSEN.FI	A3		WÄRTSILÄ WWW.WARTSILA.COM/OIL-GAS/	A1	
SULZER PUMPS FINLAND OY WWW.SULZER.COM/SULZER-PUMPS-FINLAND	A31		ÅBO AKADEMI UNIVERSITY WWW.ABO.FI	A38	
OY SÄÄTÖ AB WWW.SAATO.FI	B9				





VAASA GAS EXCHANGE

#GasExchange
#EnergyWeek

SEMINAR

Thursday March 23 10:00-15:10
Vaasa City Hall (Senaatinkatu 1)

The role of gas as transition fuel towards a more sustainable world energy production and its position in the climate strategy is discussed on a European and National level in the seminar. Biogas and imported LNGs role in the Nordic ecosystem is presented in several presentations together with the prospects of sustainable bio methane production. Practical example of use of gas in transport vehicles is also presented and discussed.

PROGRAMME

THEME: The Role of Gas in Sustainable Energy Development
CHAIRMAN: Lasse Pohjala, Senior Business Advisor, VASEK

10:00-12:00 FIRST SESSION

- 10:00** Opening words from chairman
- 10:05** Energy Policy in the European Parliament
Henna Virkkunen, Member of the European Parliament, European Parliament
- 10:35** The Role of Gas in the National Energy and Climate Strategy
Riku Huttunen, Director General, Energy Department, Ministry of Economic Affairs
- 11:00** Nordic Biogas Market Developing – Biogas as a Part of the Nordic Gas Ecosystem
Jukka Metsälä; Vice President, Biogas; Gasum
- 11:25** Building a Successful Mid-Scale LNG Terminal in Arctic Conditions
Kenneth Engblom, Director, Wärtsilä Energy Solutions & **Mika Kolehmainen**, CEO, Manga LNG
- 11:55** Summary from chairman

13:00-15:10 SECOND SESSION

- 13:00** Opening words from chairman
- 13:05** Status Quo and Future Prospects for Biogas as a Transport Fuel in Europe
Susanna Pflüger, Secretary General, European Biogas Association
- 13:30** Biomethane Production – Overview of Available Technologies
Leif Åkers, Managing Director, Ab Stormossen Oy
- 13:55** Future Industrial Biogas Production in the Nordics
Matti Vikkula, CEO, Scandinavian Biogas Fuels

- 14:20** Energy Systems in Transition Opens Up for Gas R&D
Margareta Wihersaari, Professor, Åbo Akademi University
- 14:45** Sustainable Transport and Methane Powered Vehicles
Johan Améen, Regional Manager, Scania Sverige AB

EXHIBITOR BRIEFINGS

CHAIRMAN: Jouko Putkonen, Energy Expert, Oy Merinova Ab

12:00-13:30 FIRST SESSION

- 12:00** iPEC Consortium
- 12:10** Wärtsilä
- 12:20** Ab Stormossen Oy
- 12:30** University of Vaasa
- 12:40** Gasum
- 12:50** Fuchs Oil Finland Oy
- 13:00** Roschier, Attorneys Ltd.
- 13:10** Nordic Gas Solutions AB
- 13:20** Eversheds Asianajotoimisto Oy

14:00-15:30 SECOND SESSION

- 14:00** TONISCO Service Oy
- 14:10** LNGTainer Ltd.
- 14:20** Neste Jacobs Oy
- 14:30** Beup Automation Oy
- 14:40** TransAlgae, Botnia-Atlantica project
- 14:50** Ramator Oy
- 15:00** Westenergy Oy Ab
- 15:10** Teknologian tutkimuskeskus VTT Oy
- 15:20** Klinkmann Oy

SPEAKERS



HENNA VIRKKUNEN

Member of the European Parliament, European Parliament

Henna Virkkunen has been a member of the European Parliament since 2014 and is a member of the European People's Party (EPP). Her primary committee is the Committee on Industry, Research and Energy (ITRE). She is a substitute member of the committee on Transport and Tourism (TRAN).



SUSANNA PFLÜGER

Secretary General, European Biogas Association

Susanna Pflüger is EBA's Secretary General, in charge of the association's coordination and relations towards the EU institutions in Brussels. She is specialised in topics related to sustainability of biogas and biomethane's use as a transport fuel. Susanna joined EBA in 2012 and has experience from the interest representation in Brussels since 2010.



RIKU HUTTUNEN

Director General, Energy Department, Ministry of Economic Affairs and Employment

Riku Huttunen (M. Pol. Sc.) has previously served as Director General of the Finnish Energy Authority and before that in several positions at the Ministry's Energy Department. He has also worked as Counsellor for the Ministry for Foreign Affairs in Finland's Permanent Representation to the European Union in Brussels.



LEIF ÅKERS

Managing Director, Ab Stormossen Oy

Leif has over 27 years of experience in biogas production with biowaste and sewage sludge. He has been working with the development of Ab Stormossen Oy's biogasplant since 1988 and as Managing Director since 1990. He is also a member of the board in Finnish Solid Waste Association and in Nordic Waste Association.



JUKKA METSÄLÄ

Vice President, Biogas; Gasum

Jukka Metsälä is the vice president of biogas in Nordic's leading gas player, processor of biodegradable waste and supplier of organic fertilizers and biogas, Gasum. The Finnish energy company Gasum imports natural gas to Finland, offers LNG in Nordics and upgrades biogas in Finland and Sweden and transmits and delivers these for energy production, industry, homes, and land and maritime transport.



MATTI VIKKULA

CEO, Scandinavian Biogas Fuels

M.Sc in Economics 1986 from the Helsinki School of Economics and IEP Insead. Mr. Vikkula has held several positions as CEO or SVP in such listed companies as Ruukki Group Oyj, Elisa Oyj and Saunalahti Group Oyj, as well as been a partner at PwC Management Consulting. He also holds/ has held board positions in several companies including Efore Oyj, AinaCom Oy and iTaito Oy.



KENNETH ENGBLOM

Director, Sales & Marketing of LNG Infrastructure Solutions, Wärtsilä Energy Solutions

Kenneth Engblom (Msc) graduated from Helsinki University of Technology, Finland with a Master degree in Mechanical Engineering. He joined Wärtsilä 1997 and have since that had various managerial positions in R&D, Project Management and Sales. Besides Finland, he has been stationed for longer times in Mumbai, Houston and Sydney during these years.



MARGARETA WIHERSAARI

Professor, Åbo Akademi University

Wihersaari has been acting as a professor in Energy Technology since 2012 at Åbo Akademi University. She has about 30 years of experience within energy and environmental technology research, mainly at VTT. Her research focuses on energy systems and especially future challenges and possibilities for improving sustainability of energy supply chains.



MIKA KOLEHMAINEN

CEO, Manga LNG Oy

Mika Kolehmainen (MSc) is CEO of Manga LNG Oy and Manga Terminal Oy. Mika joined Manga companies in mid-2015 to establish the operations and business activities. Earlier he worked as VP Operations at Havator Oy with responsibility of operations in Finland and Baltic countries. Mika graduated in 1997 from University of Oulu, Finland with a Master degree in Civil Engineering and Logistics.



JOHAN AMÉEN

Regional Manager, Scania Sverige AB

Johan Améen is Business Manager at Scania Sweden and he's responsible for alternative fuels. Background from Scania, BPW, Volvo Cars and aviation.



Contact

Got a question? Ask Teemu:

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ENERGY & BUILDINGS

#EnergyBuildings
#EnergyWeek

SEMINAR

Friday March 24 09:00-14:00
Vaasa City Hall [Senaatinkatu 1]

Ever since the first house was built, mankind has attempted to create an environment different from what the open air has to offer: a safer, healthier environment that provides physical comfort.

Today, we live in comfortable indoor environments, but heating, ventilation and air-conditioning systems inside our buildings are often still inefficiently operated, and the structure of the building can itself cause problems with the indoor environment.

Now that sustainability and the cost of energy have become central concerns, we need to take on the challenge of how to create safe, healthy

and comfortable indoor environments in an energy efficient way. And this is what the Energy & Buildings seminar focuses on this time.

Come and listen to experts, discuss with colleagues and meet companies with new and exciting solutions.

PROGRAMME

SEMINAR PART I

- 9.00** Welcome to the Energy & Buildings Seminar
Mauritz Knuts, Project Manager, Vaasa Region Development Company VASEK
- 9.05** Opening Speech; Energy-efficiency and sustainability in buildings – can we have both?
Anders Adlercreutz, Member of Parliament at Parliament of Finland / Architect
- 9.20** Main Sponsor Presentation: Building Automation and IoT
Harri Liukku, Sales Manager, ABB
- 9.40** Main Sponsor Presentation: IoT and Service Systems for Buildings
Jyrki Keskinen, Segment leader of Business Solutions, Wapice
- 10.00** Networking break and possibility to visit the exhibition

SEMINAR PART II

- 10.30** “Energy savings measures” Do they work? Measuring energy efficiency measures accurately and lessons learned from a wide range of experiments
Richard Fitton, Lecturer in Energy Efficiency, Applied Buildings and Energy Research Group, University of Salford

- 10.50** Impact and future challenges of European research for energy efficient buildings
Frances Bean, Project Manager, Buildings Performance Institute Europe (BPIE)
- 11.10** Renovation of Buildings for Energy Efficiency
Rajnish Kaur Calay, Head of research group, Institute for Building, Energy and Materials Technology, UiT Norway’s Arctic University
- 11.30** Networking and lunch break, and possibility to visit the exhibition

SEMINAR PART III

- 13.00** Energy efficient thermal comfort-theory and practice
Bin Yang, Assistant Professor in Energy Engineering, University of Umeå
- 13.20** Effects of improved energy efficiency on indoor environmental quality, health and wellbeing - results from INSULAtE-project
Ulla Haverinen-Shaughnessy, Senior Researcher, Tampere University of Technology / National Institute for Health and Welfare
- 13.40** Is Europe ready for a Smart Building Revolution?
Isabel Pinto-Seppä, ECTP The European Construction, built environment and energy efficient building Technology Platform / VTT

KEYNOTE SPEAKERS



ANDERS ADLERCREUTZ

Member of Parliament at Parliament of Finland / Architect

Anders Adlercreutz is a Member of Parliament and an architect. After a long career as an architect and entrepreneur, he entered politics on a local level in 2012 and was elected to Parliament in 2015. In Parliament, he has focused on issues concerning the environment, energy and sustainability. He is one of the founding members of the Energy-reform group in the Finnish parliament.



HARRI LIUKKU

Sales Manager, ABB

Harri Liukku works as sales director responsible for the construction industry at ABB Finland. Liukku has more than 15 years of experience in automation for both commercial and residential construction.



JYRKI KESKINEN

Segment leader of Business Solutions, Wapice Oy

Jyrki has over 20 years experience of digitalization and IoT projects in energy and industry environments.



RICHARD FITTON

Lecturer in Energy Efficiency, Applied Buildings and Energy Research Group, University of Salford

Richard is the lead researcher in the Energy House Research Facility at the University of Salford. His main research interests are in the measurement of building energy performance. Richard was as a Building Surveyor for 12 years before becoming an academic in the area of building physics.



FRANCES BEAN

Project Manager, Buildings Performance Institute Europe (BPIE)

Frances has worked in the energy efficiency, climate change and the wider environmental policy field for over 9 years. Prior to joining BPIE, she was Policy Director at Stefan Scheuer Consulting, working on energy efficiency policies for a range of clients including the European Climate Foundation and the Coalition for Energy Savings.



RAJNISH KAUR CALAY

Head of research group, Institute for Building, Energy and Materials Technology, UiT Norway’s Arctic University

Rajnish Calay has a broad engineering background with Bachelors in Civil Engineering from India and masters and PhD in Mechanical Engineering from Cranfield University, UK. She has worked at universities in the UK and industry in the UK and India. At present Rajnish is research leader at Institute of Building, Energy and Material technology at University of Tromso.



BIN YANG

Assistant Professor in Energy Engineering, University of Umeå

Bin Yang is an Assistant Professor in the Research Lab in Energy Efficiency with a focus on Buildings at Umeå University in Sweden. He got his Ph.D. degree from Technical University of Denmark and National University of Singapore. He is a researcher with more than 10 years research experience in thermal comfort, indoor air quality, building energy efficiency and HVAC.



ULLA HAVERINEN-SHAUGHNESSY

Senior Researcher, Tampere University of Technology / National Institute for Health and Welfare

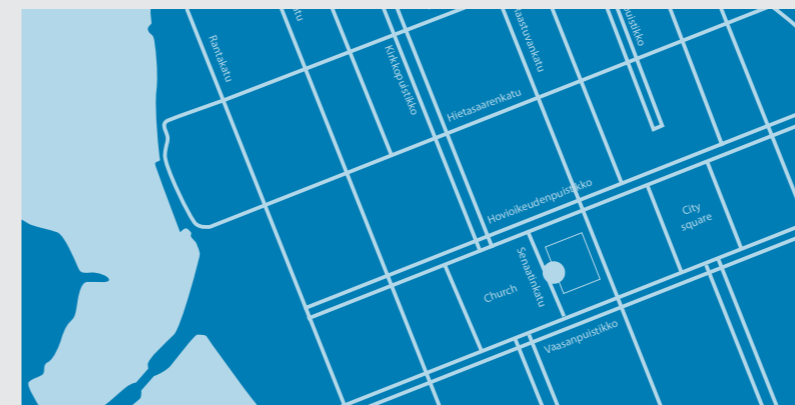
Ulla Haverinen-Shaughnessy is a Docent of Healthy Buildings at Tampere University of Technology, Finland, a Visiting Professor at the University of Tulsa, USA, and a Senior Researcher at the National Institute for Health and Welfare, Dept. of Health Protection, Finland.



ISABEL PINTO-SEPPÄ

ECTP The European Construction, built environment and energy efficient building Technology Platform / VTT

Isabel has Interdisciplinary expertise in clean tech, sustainable built environment, Smart Cities and in the construction and forest products industry. She is also experienced in R&D management, international project coordination and research policy making.



Contact

Got a question? Ask Mauritz:

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mauritz.knuts@vasek.fi

+358 (0) 50 306 8419



ENERGY & BUILDINGS

#EnergyBuildings
#EnergyWeek

EXHIBITION

Friday March 24 09:00-15:00
Vaasa City Hall (Senaatinkatu 1)

The construction sector expert event Energy & Buildings is arranged as part of the Vaasa EnergyWeek. The event focuses on topics related to energy efficiency as well as construction and automation solutions for new build and refurbishment purposes.

PROGRAMME

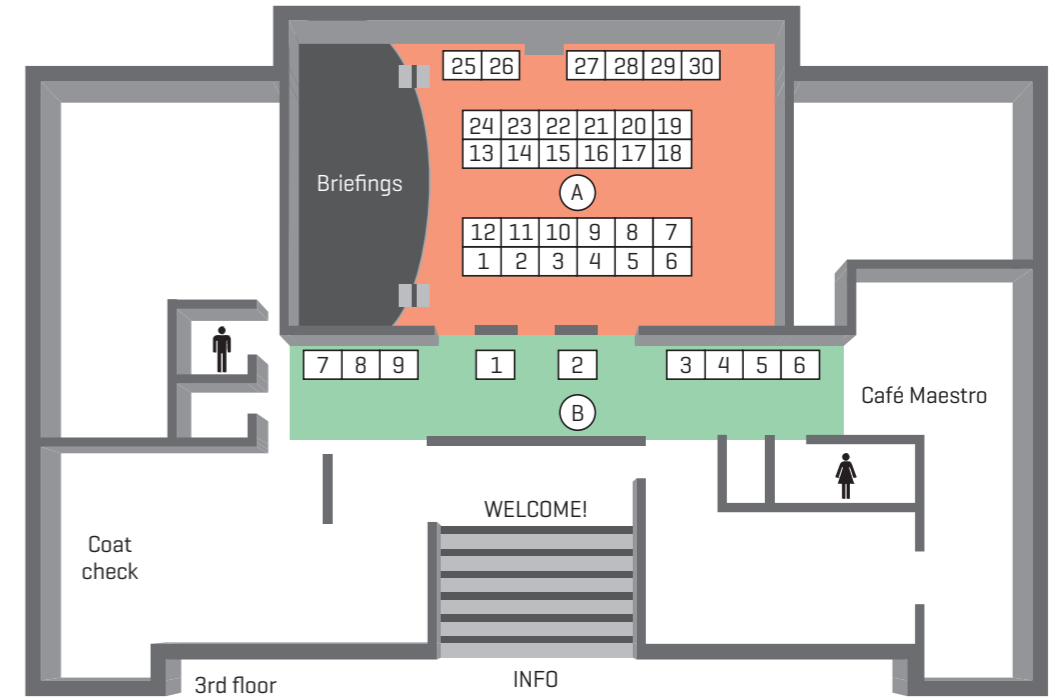
- 7.00-9.00** Stand set-up
- 8.00-** Visitor registration
- 9.00-15.00** Exhibition is open
- 9.00-10.00** Seminar part 1
(We start the day for all participators)
- 10.30-11.30** Seminar part 2
- 13.00-14.00** Seminar part 3
- 10.00-15.00** Exhibitors' briefings

EXHIBITORS BRIEFINGS

- 10.00** Ilmanvaihdon lämmöntalteenotto ja energiatehokkaat ilmanvaihtoratkaisut
Markus Castrén, Toimitusjohtaja, DI, Retermia
- 10.30** Lumizone Smart Poles & Smart Lights
Tomi Lindström, CEO, Partner, Lumizone Global Oy
- 11.00** Parempi sisäilma kuuluu kaikille
Petri Hänninen, Vanhempi erityisasiantuntija, Skaala
- 11.30** Noise and breaking cause energy inefficiency. Can we do anything about them?
Anton Salmi, Business Development Manager, Hammerglass

- 12.00** Aurinkosähköä 36 vuoden kokemuksella - mitä olemme oppineet.
Markus Andersén, Myyntijohtaja, Naps Solar Systems
- 12.30** Miksi luvattua energiatehokkuutta ei saavuteta? Laskelmista käytäntöön
Hanna Stammeier, Energia-asiantuntija, SWECO
- 13.00** Wasa Station - Pohjolan energiapääkaupungin kohtaamispaikka, Mötesplatsen för Nordens energihuvudstad
Mikael Snellman, Aluejohtaja, Lemminkäinen
- 13.30** Wasa Station energiaratkaisut ja MOBO energioptimoinnit
Ville Reinikainen, Toimialajohtaja, energia, Granlund Consulting Oy
- 14.00** Jätteenkeräys kustannustehokkaasti, hiilijalanjälkeä vähentämällä
Jenni Rahkonen, Tutkimusinsinööri, jätehuollon tutkimus- ja koulutustehtävät, Molok Oy
- 14.30** Tehokas ja terveellinen rakennus - Rambollin toiminnanvarmistuspalvelu
Markku Ahonen, Johtava konsultti, Ramboll Finland Oy

NOTE!
SOME OF THE BRIEFINGS ARE HELD IN FINNISH LANGUAGE



ENERGY & BUILDINGS EXCHANGE EXHIBITORS

ABB OY WWW.ABB.FI	A2	ABB	NOVOSAN OY WWW.NOVOSAN.FI	A8	novosan
CAVERION SUOMI OY WWW.CAVERION.FI	A6	Caverion	PREVEX OY AB WWW.PREVEX.COM	A4	PREVEX
GRANLUND POHJANMAA OY WWW.GRANLUND.FI	A28	Granlund Less energy gives more	RAMBOLL FINLAND OY WWW.RAMBOLL.FI	A15	RAMBOLL
HAMMERGLASS FINLAND HMGFINLAND.FI	A11	Hammerglass Finland	RETERMIA OY WWW.RETERMIA.FI	A25	RETERMIA
HIKVISION EUROPE B.V WWW.HIKVISION.COM	A12	HIKVISION	SCHNEIDER ELECTRIC WWW.SCHNEIDER-ELECTRIC.FI	A19-20	Schneider Electric
INNOLINK GROUP OY WWW.INNOLINK.FI	A21	INNOLINK	SKAALA IKKUNAT JA OVET OY WWW.SKAALA.COM	A17	SKAALA
INVEST IN FINLAND, FINPRO WWW.FINPRO.FI	B2	FIN PRO	STRAVENT OY WWW.STRAVENT.FI	A3	STRAVENT
LEMMINKÄINEN TALO OY WWW.LEMMINKAINEN.FI	A29	Lemminkäinen	SWECO WWW.SWECO.FI	A13	SWECO
LUMIZONE GLOBAL OY WWW.LUMIZONEGLOBAL.FI	A10	LUMIZONE GLOBAL	VAASAN SÄHKÖ OY WWW.VAASANSAHKO.FI	B-LOBBY	VAASAN SÄHKÖ VASA ELEKTRISKA
MOLOK OY WWW.MOLOK.FI	A1	ORIGINAL MOLOK	VEXVE OY WWW.VTT.FI	A18	VEXVE
NAPS SOLAR SYSTEMS OY WWW.NAPSSYSTEMS.COM	A14	NAPS 35 solar years	VTT WWW.VTT.FI	A16	VTT

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EnergyWeek 2017

POWERED BY



ABB is a pioneering technology leader in electrification products, robotics and motion, industrial automation and power grids, serving customers in utilities, industry and transport & infrastructure globally. Continuing more than a 125-year history of innovation, ABB today is writing the future of industrial digitalization and driving the Energy and Fourth Industrial Revolutions. ABB operates in more than 100 countries with about 135,000 employees of which 5,000 in Finland.

ABB.COM



VEO is an energy expert offering automation and electrification solutions for power generation, power distribution and process industry. Renewable energy solutions have played a strong part in deliveries from the very beginning in VEO's history. VEO's head office and factory is located in Vaasa, Finland.

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Wapice is a leading Technology Partner for industrial businesses. With their software and electronics expertise Wapice creates solutions that boost industrial innovation and enhance the clients' performance across all functions

WAPICE.COM



Wärtsilä is a global leader in advanced technologies and complete lifecycle solutions for the marine and energy markets. The company has operations in over 200 locations in more than 70 countries with approximately 18,000 employees.

WARTSILA.COM



Arcteq's AQ 200 series for high-voltage transmission and medium voltage distribution systems, is the most accurate power grid protection on the market. The ultra fast AQ 100 arc protection provides safety at any type of medium or low voltage application.

ARCTEQ.FI



Citec provides multi-discipline engineering and information management services to the Energy industry, and other technology-dependent industries. Citec helps their customers deliver sustainable solutions that supply the society with the energy it needs. They offer services according to local presence & global resourcing models - 1300 employees and operations in 11 countries.

CITEC.FI



EPV Energy Ltd is a Finnish energy company specialized in the generation and supply of electricity and heat. It procures or produces around 5 % of all the electricity used in Finland. The company's objective is to gradually refine its energy acquisition towards lower emissions.

EPV.FI



Westenergy is a strong link between municipal waste treatment and energy production: The company owns and operates a modern Waste-to-Energy plant where energy in combustible waste is transformed into electricity and district heating in an efficient, safe and clean way. The plant is also open for visitors.

WESTENERGY.FI

ENERGYVAASA

The Nordic Leader in Energy Technology

The Vaasa region is proud to present more than 2.000 experts specialized in energy related R&D. We are enriched with versatile competence and large resources to take on challenges in the energy field. You can really feel the growth here. And growing companies create more jobs. Did you know that the region already has the best rate of employment in Finland?

Compared to other Finnish economic regions, the Vaasa region has the most enterprises per head of population, creating the densest concentration of businesses in the country. We've decided to focus our efforts on clean energy. In addition to having the leading Cleantech industry in the world, our own energy production is the cleanest one in Finland.

ENERGYVAASA IS HAPPY TO HAVE YOU HERE! ENJOY ENERGYWEEK!

MORE THAN

140



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

EUR



4.4

BILLION ANNUALLY

EXPORT RATE OVER 80%

30%



OF FINLAND'S TOTAL EXPORT IN **ENERGY TECHNOLOGY**

CURRENT NUMBER OF EMPLOYEES:

11,000



25%

OF TOTAL MANPOWER IN THE FIELD OF ENERGY IN FINLAND



EnergyVaasa