

# Investor analysis & Opportunities arising

NEOCARBON ENERGY PROJECT  
NEW BUSINESS ARISING, WP3

11.12.2017, 9TH RESEARCHERS' SEMINAR

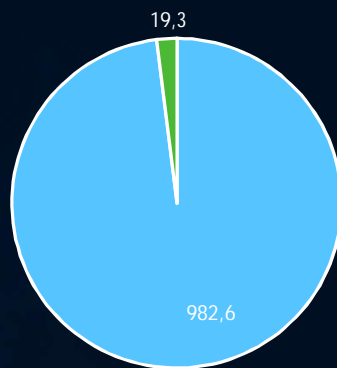
*Petteri Laaksonen*

# Investor analysis

INVESTOR INTERVIEWS 2016-2017 - UK, DE, SE, FI, CH

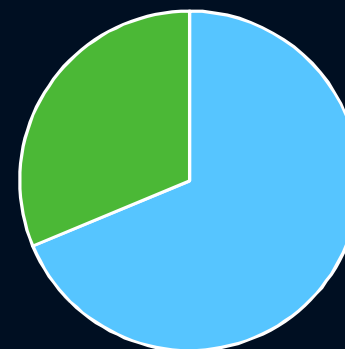
# Investor demographics

Equity by class



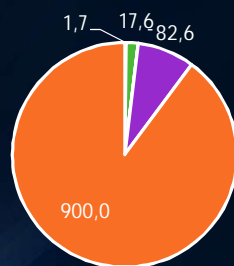
■ Institutional ■ Funds

Renewable and sustainable investments by class



■ Institutional ■ Funds

Classification by equity



■ Small 0,5 - 1 BEUR ■ Medium 1 - 10 BEUR  
 ■ Medium large 10 - 20 BEUR ■ Large 20 - 100 BEUR  
 ■ Extra large > 100 BEUR

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# Investor analysis - Summary

- Changes in Energy Production in Europe
  - EEG - German abbreviation for Renewable Energy Sources Act, came into force on April 1, 2000.
  - Wind power will be the leading production technology
  - Solar PV capacity will increase and catch-up wind – prosumers have an impact
  - Funds are also moving into new areas of investment because institutional investors are increasingly making direct investments in renewable energy production
- Energy Storages
  - Investments in energy storage are still rare
  - Battery storage investments have been made, no other technologies in “radar”

# Investor analysis – Summary *(cont'd)*

- Mobility
  - Not considered an exciting investment opportunity, will cause uncertainty in investments in shares of listed companies (e.g. Daimler-Benz).
  - Will have a big impact on insurance companies (institutional investors) earnings logics
  - Interviewees predicted that electric cars will be the dominant technology
- Industrial CO2 Emission Reduction
  - None of the investors had come across any investment proposals on the reduction of CO2 emissions
  - The capture and recycling of the captured CO2 is still in its infancy and is yet to become a viable investment opportunity



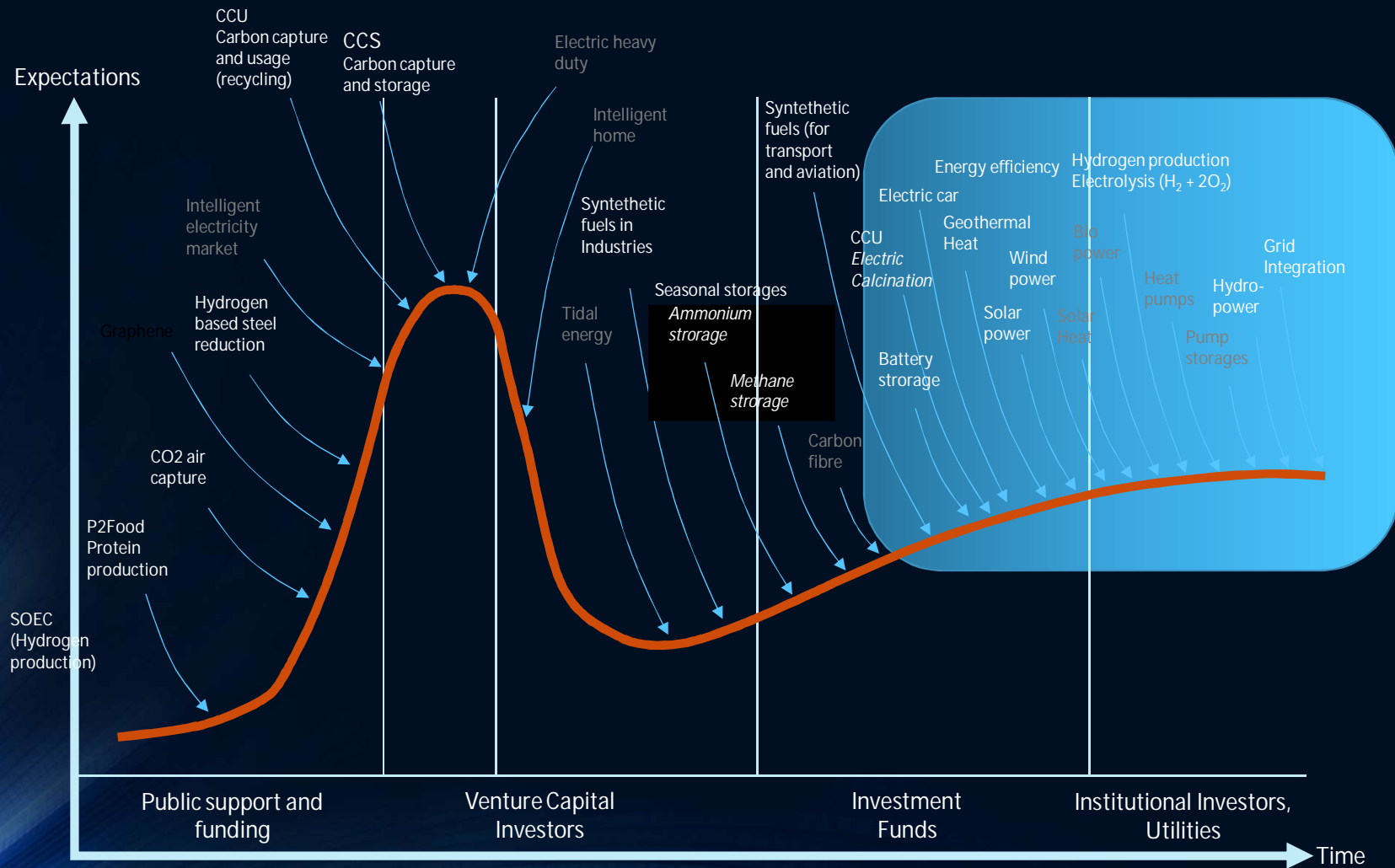
# Investor analysis – Summary *(cont'd)*

- Europe - Brexit - UK voted to leave the European Union
  - Impact on funds, which are operating under the mandate to invest only in EU countries
  - The main concern was the legal impacts and costs for operating from the UK to Europe
- USA
  - In the USA, President Trump was making statements and promises for radical changes that would potentially have an impact on investment returns and stability
- Finland
  - Considered as a positive investment environment: euro country, stable society, and economically in a good shape
  - As a market Finland is small and remote from Central Europe
  - The changes in wind power subsidy systems at the end of the period in 2016 irritated and caused uncertainty

The background is a deep blue gradient with a complex, abstract pattern of curved lines and a grid-like structure that creates a sense of depth and movement. The lines are more pronounced on the right side, curving away from the center.

Opportunities arising

# Maturing of technology and investment opportunities



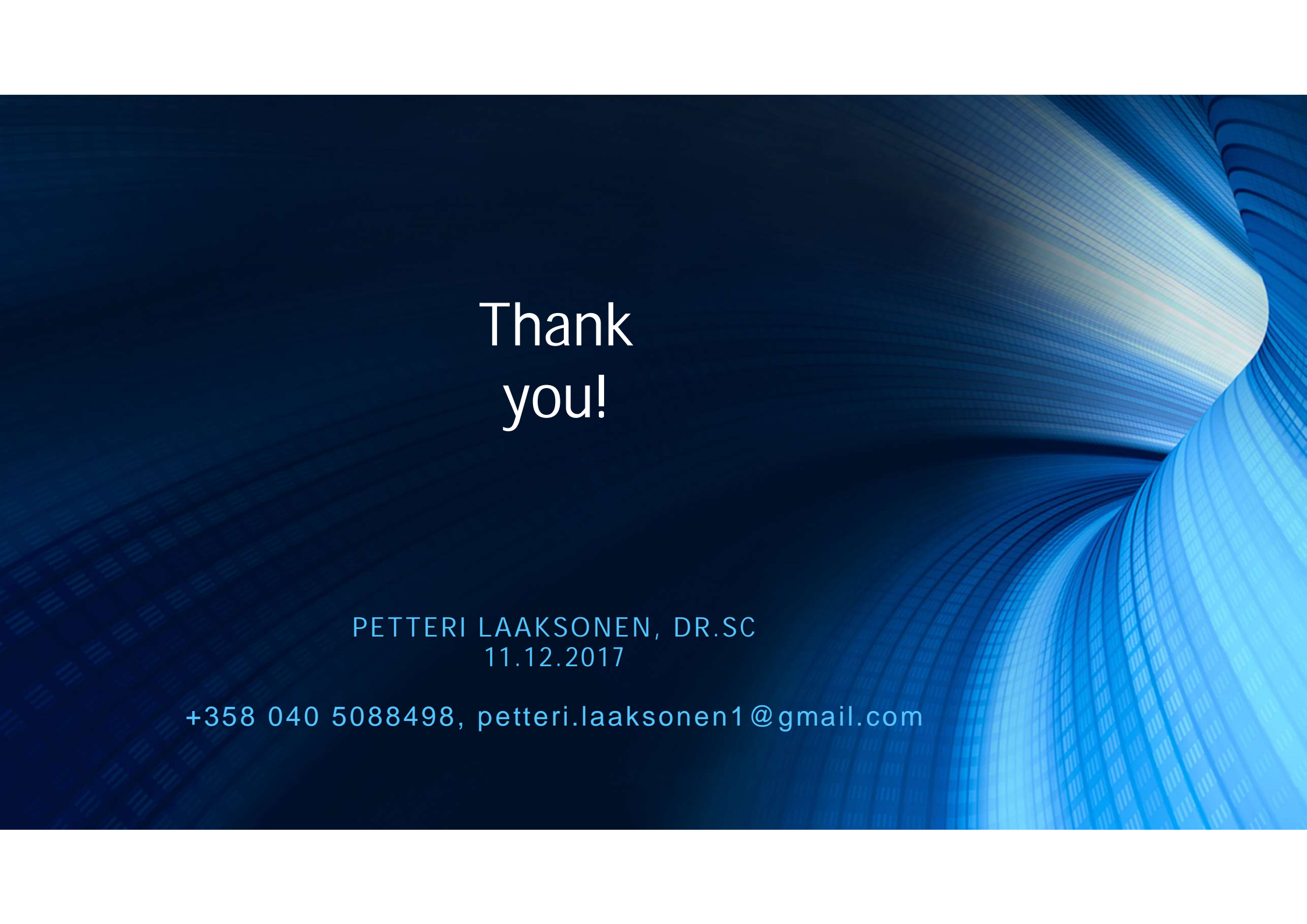
Petteri Laaksonen

Adapted from Gartner Hype Curve: <https://www.gartner.com/technology/research/methodologies/hype-cycle.jsp>  
 Source: Neo Carbon Energy, New Business Models Arising from the Energy Market's Strategic Change, Final Report



# Opportunities arising

- Hydrogen – production and manufacturing of electrolysis equipment
- Internet of Energy – New energy market roles, Artificial Intelligence robots in trade and control, Protocols (identification, security, business securities, etc.)
- Energy efficiency – integration of technology into solutions and investment projects - Finance and technology knowledge
- Energy production (wind, solar)
- Energy storages
- Virtual power plants
- Water purification and desalination
- Electricity distribution and integration
- New carbon based materials (carbon fibre, graphene, etc.)



Thank  
you!

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