

# Agri-e – The Future Energy Supplier



**agri-e**

**«Coming together is a beginning;  
keeping together is progress;  
working together is success»**



Henry Ford



# A **Hydrogen Strategy** for a climate neutral Europe

#EUGreenDeal

8 July 2020



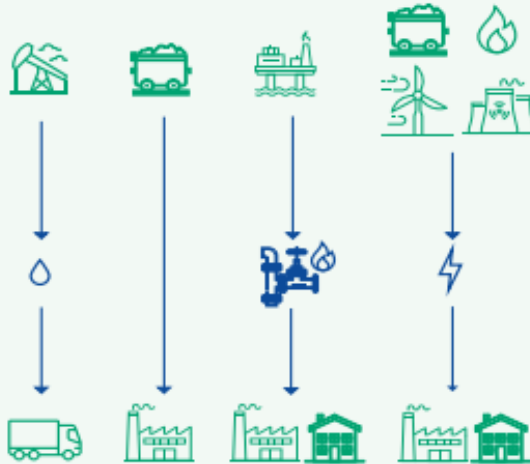
# A hydrogen Strategy for a climate neutral Europe

The EU Hydrogen Strategy will give a boost to **clean hydrogen production in Europe**. Hydrogen can be used as **a feedstock, a fuel or an energy carrier and storage**, and has many possible applications which would reduce greenhouse gas emissions across industry, transport, power and buildings sectors. The Commission's economic recovery plan 'Next Generation EU' highlights **hydrogen as an investment priority** to boost economic growth and resilience, create local jobs and consolidate the EU's global leadership.



# EU Energy System Integration Strategy

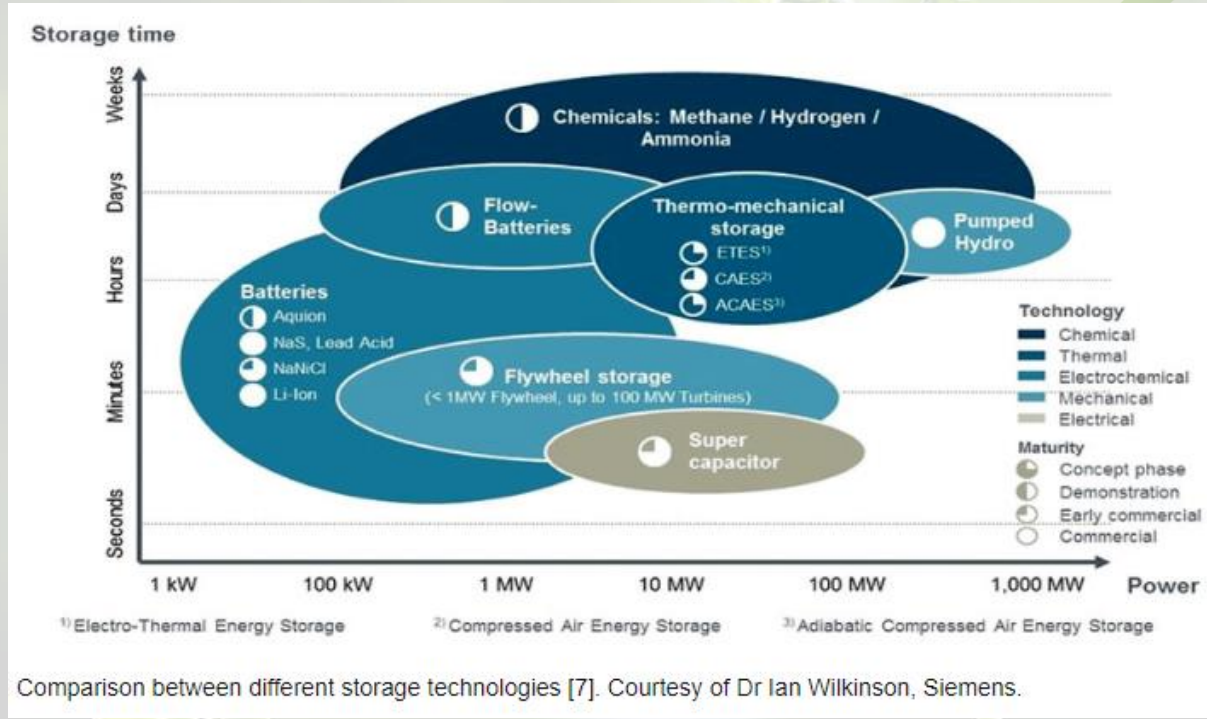
**The energy system today :** linear and wasteful flows of energy, in one direction only



**Future EU integrated energy system :** energy flows between users and producers, reducing wasted resources and money



# 2018 Energy Storage From journal: “Progress in Energy and Combustion Science”



# From Farm to Fork - Strategy



**Make sure Europeans have access to healthy, affordable and sustainable food**



**Tackle climate change**



**Protect the environment and preserve biodiversity**



**Ensure a fair economic return in the supply chain**



**Increase organic farming**

# From Farm to Fork – Strategy 2030 targets



**The use of pesticides in agriculture** contributes to pollution of soil, water and air. The Commission will take action to **reduce the use of chemical and more hazardous pesticides by 50%**



The **excess of nutrients** in the environment is a major source of air, soil and water pollution, negatively impacting biodiversity and climate. The Commission will act to

- **reduce nutrient losses by at least 50%**, while ensuring no deterioration on soil fertility
- **reduce fertilizer use by at least 20%**



**Antimicrobial resistance** linked to the use of antimicrobials in animal and human health leads to an estimated 33,000 human deaths in the EU each year. The Commission will **reduce the sale of antimicrobials for farmed animals and in aquaculture by 50%**.



**Organic farming** is an environmentally-friendly practice that needs to be further developed. The Commission will help the EU's organic farming sector to grow, with the goal of **25 % of total farmland being used for organic farming by 2030**.

# From Farm to Fork - Strategy



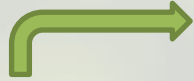
*"The coronavirus crisis has shown how vulnerable we all are, and how important it is to restore the balance between human activity and nature. At the heart of the Green Deal the Biodiversity and Farm to Fork strategies point to a new and better balance of nature, food systems and biodiversity; to protect our people's health and well-being, and at the same time to increase the EU's competitiveness and resilience. These strategies are a crucial part of the great transition we are embarking upon."*

**Frans Timmermans, Executive Vice-President of the European Commission**



# Finnøy, resource utilization across sectors

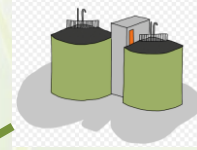
Electricity, heat and CO2



Lauvsnes Gartneri



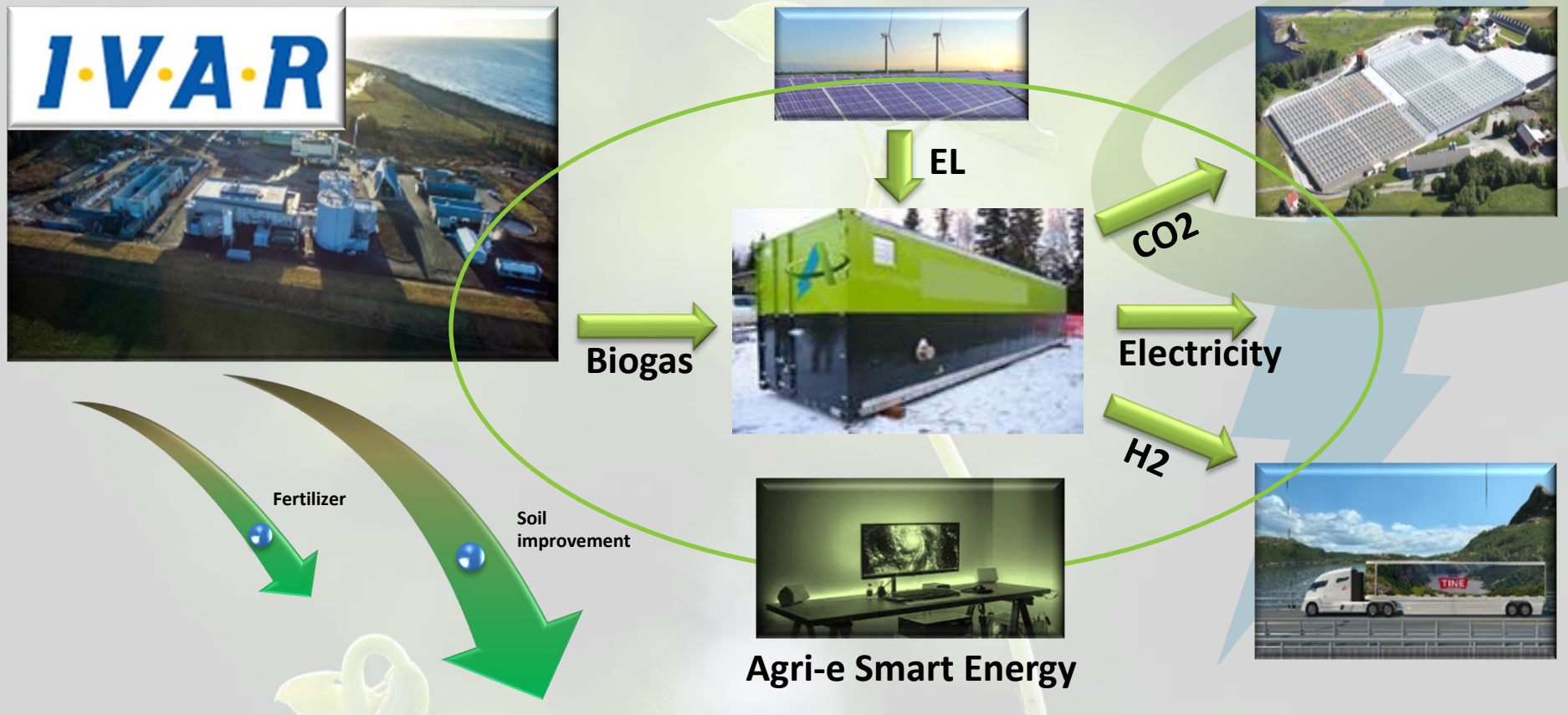
Bioenergi  
Finnøy

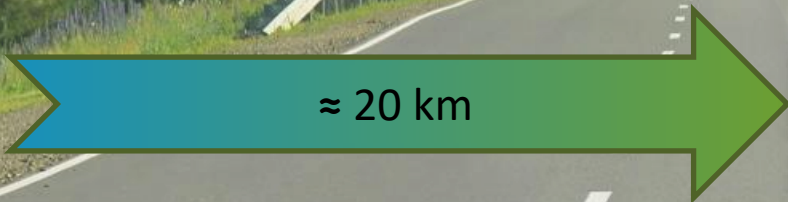
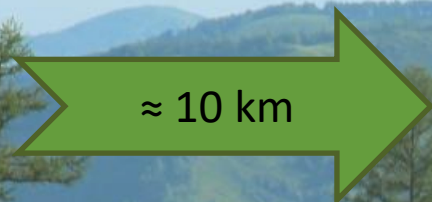


Hydrogen

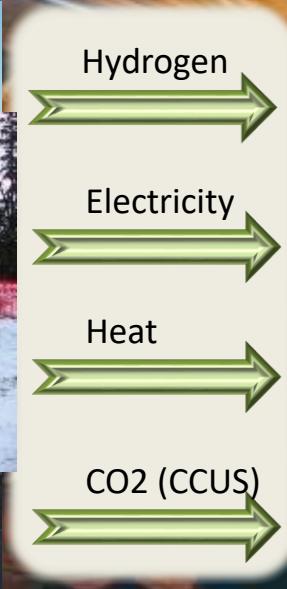


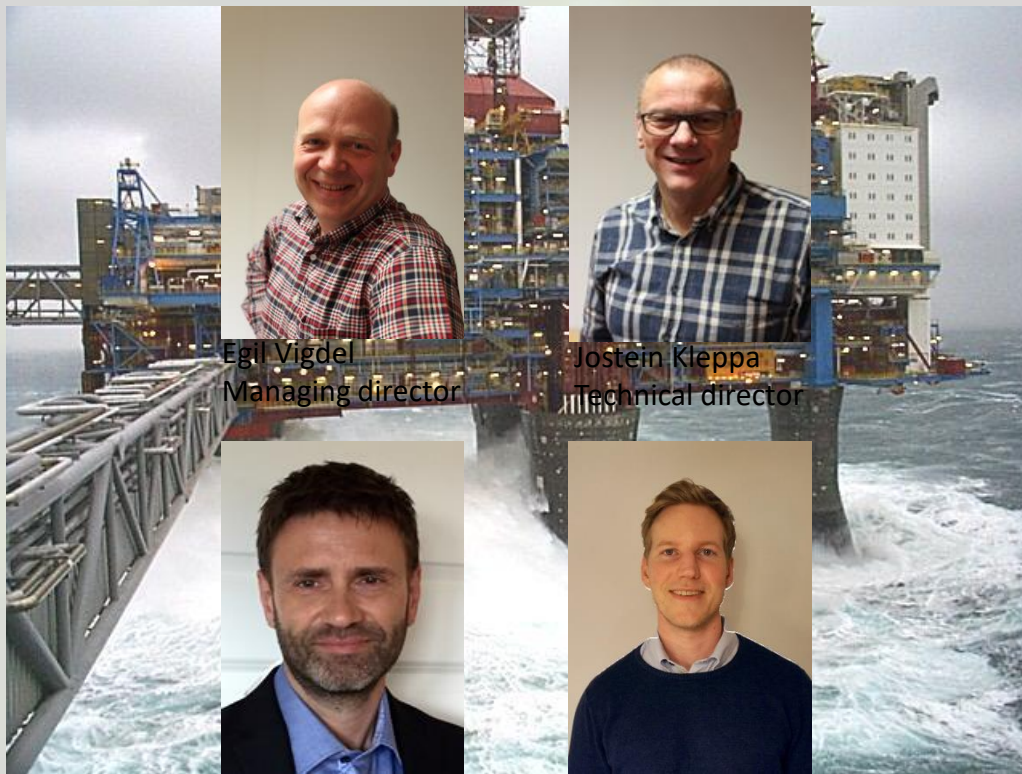
# Resource utilization across sectors





Electricity and Hydrogen





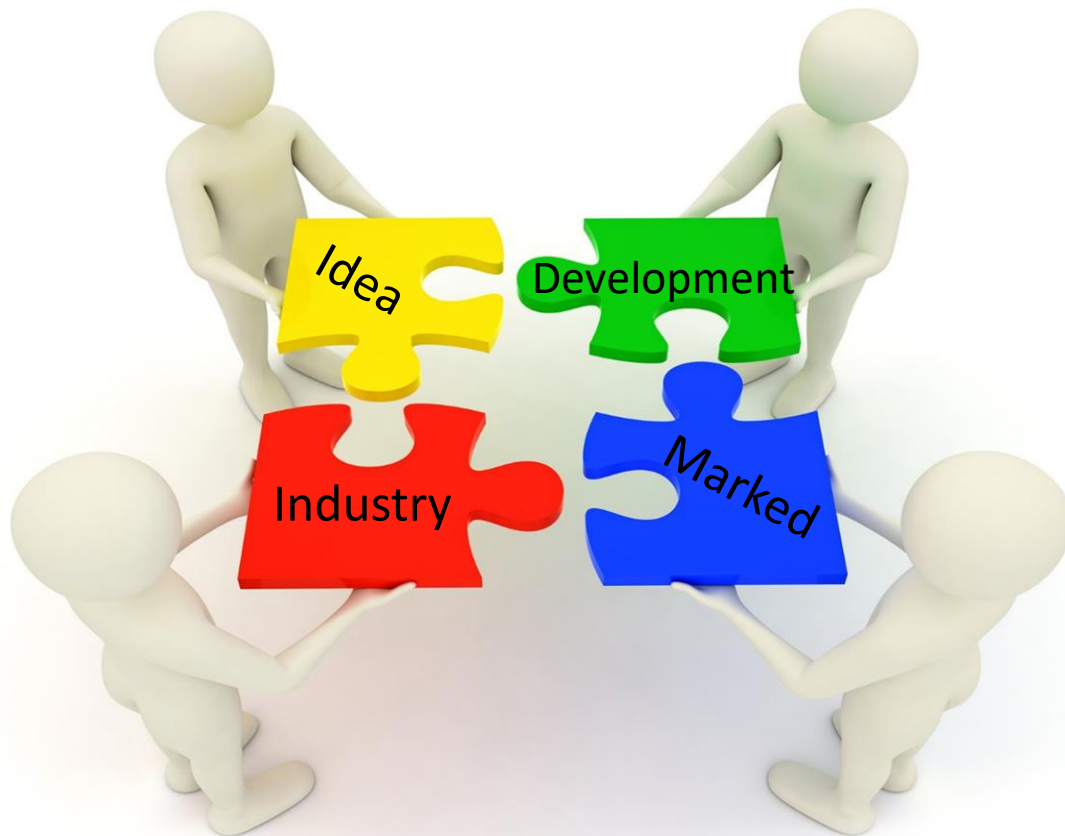
Egil Vigdel  
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Jostein Kleppa  
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Kjell Husabø  
Project director

Trym Dysvik Eide  
Senior Automation  
Engineer

# Our partners



# Strategic Execution for Norwegian Energy Solutions (NES)

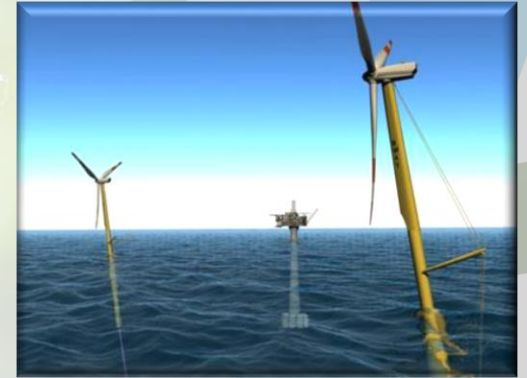
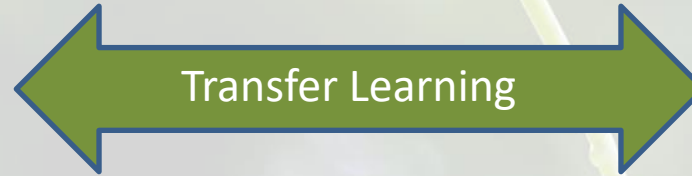


Oil & Gas

*New Innovations*  
*Subsurface Solutions*  
*Low Emission*  
*Decom*



Energy Innovation  
&  
Transition



New Energy

*Transformation process*  
*New energy Solutions*  
*Carbon handling*



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Thank You for Your attention

