

# Hydrogenklyngen

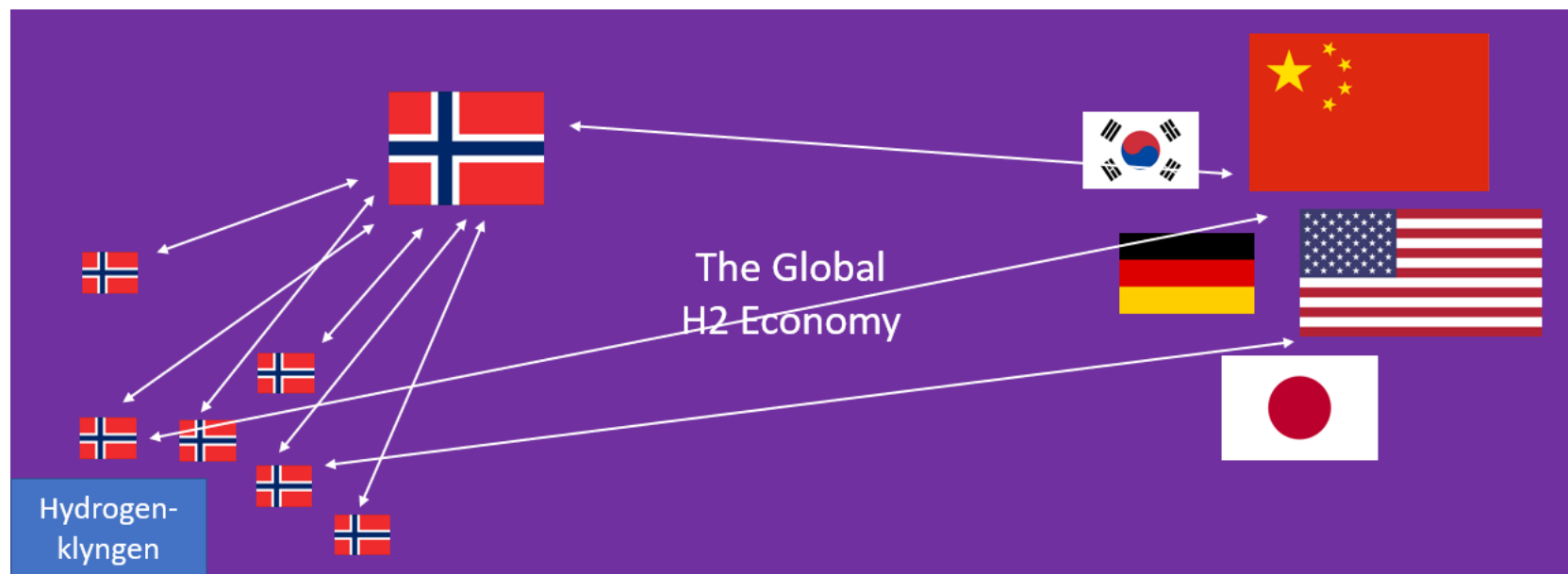
## The newly established Norwegian «land-based» Hydrogen Cluster

Kristian Vik, Secretary General,  
Norwegian Hydrogen Association  
Sept 19th, Florø



# Hydrogen is growing exponentially, on global level

- **From commercialization/industrialization**
- **Growth from renewables**
- **Tightened emissions reduction demand**
- **Enforces stronger focus on sustainable energy carriers & energy systems**
- Increasing political awareness on the key role of hydrogen for decarbonization
- New products and innovations is being **implemented in new market segments**
- From «outsider» to «insider» – **financial institutions sees the potential**



## The process so far

- **Cluster study** by Norsk Hydrogenforum 2018
- **Spring 2019: Operative collaboration** between NHF and Kunnskapsbyen
- **Official launch og the cluster** at the Norwegian Hydrogen Conference on May 27th
- **Hydrogen Cluster team** between Norwegian Hydrogen Association and Lillestrøm Centre of Expertise
- **Interim steering board, followed by a cluster board shaping**
- **Application sent to Innovation Norway on Sept 6th.**



27/05/2019

### Vil etablere en nasjonal hydrogenklynge

Kunnskapsbyen Lillestrøm og Norsk Hydrogenforum har tatt initiativ til å etablere en nasjonal hydrogenklynge for å sette fart på den industrielle utviklingen.



17/06/2019

### Enige om å etablere hydrogenklynge

Et tjuetalls norske hydrogenaktører ble i dag enige om å gå videre med arbeidet for å danne en egen næringsklynge for hydrogen.



# Hydrogenklyngen

**The Norwegian Hydrogen Cluster will focus on increased value creation among the companies in the Hydrogen cluster, through intensified cooperation on R&D, competence & information sharing, business models, market development and international market positioning**



## VISJON

The Norwegian hydrogen industry to become a world leader in technology, business models and solutions for production, transport, storage, use and export of hydrogen. By 2025, hydrogen is playing a significant role in the global market



## MISJON

Create an attractive national innovation arena where new and existing companies collaborate on innovation, competence building, market development and market positioning.



## HOVEDMÅL

Økt verdiskapning blant bedriftene i Hydrogenklyngen nasjonalt og internasjonalt, gjennom forpliktende samarbeid om FoUoI, kompetanseheving, samt posisjonering i markedet.

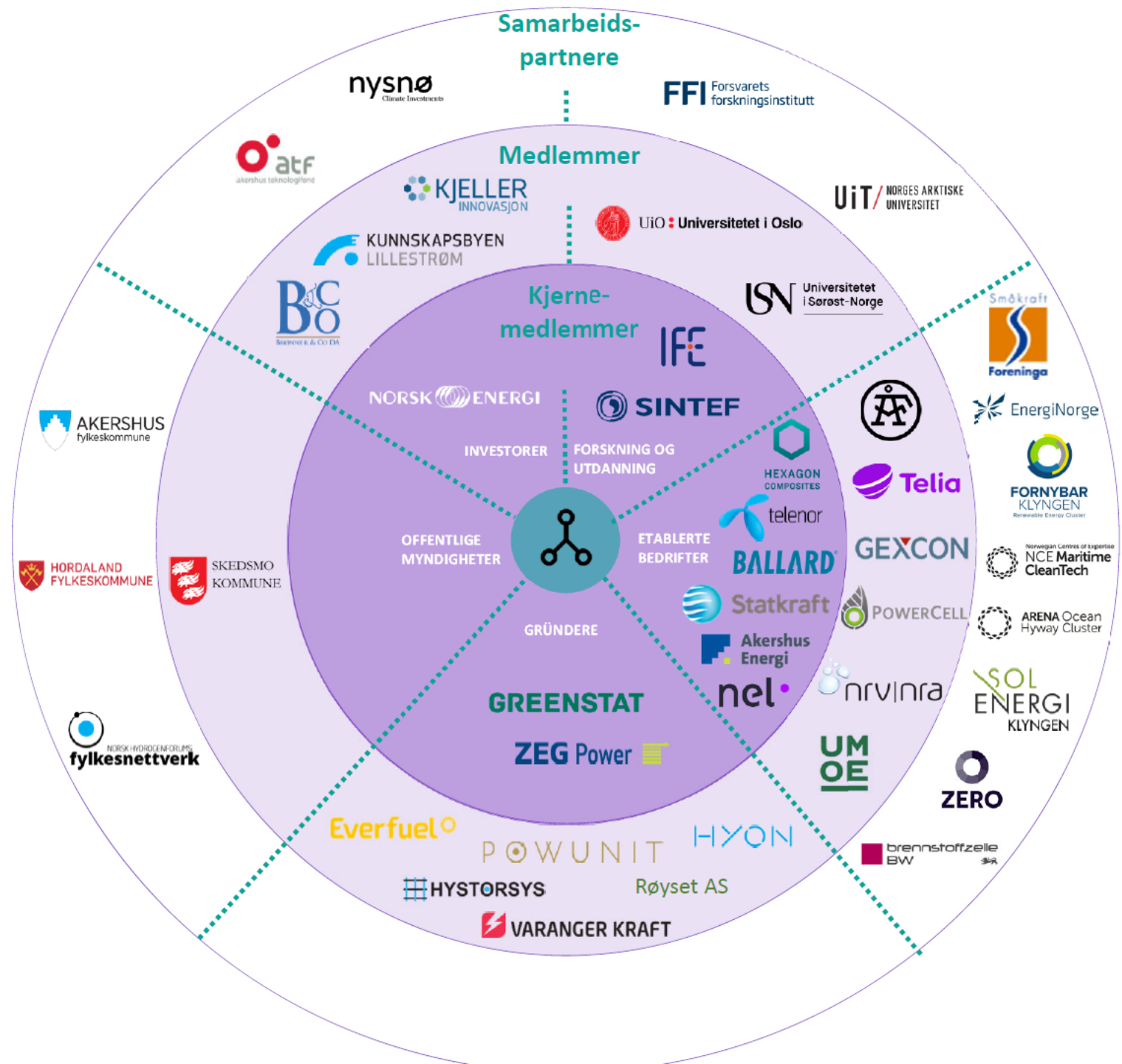


# Cluster partnership

The Hydrogen Cluster has partners based on three categories:

- 11 core group members
- 18 standard members
- 14 associate partners

The cluster has in total 29 members and 14 associate partners



# STRATEGIC FOCUS AREAS

Focus area 1:

Collaboration, public perception, safety assessments, market positioning

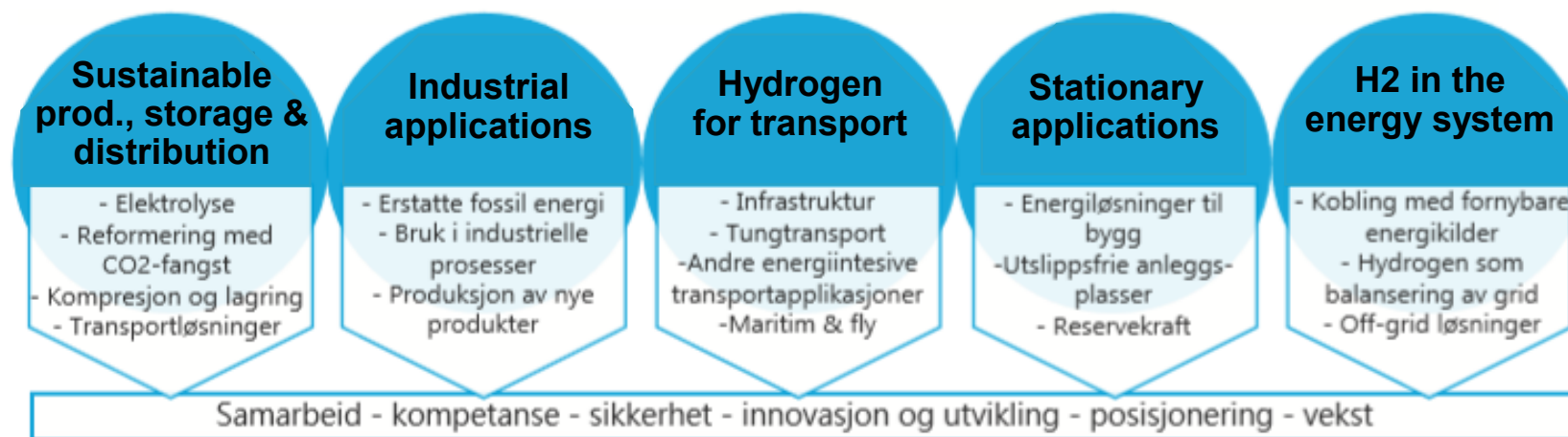
Focus area 2:

R&D, Innovation

Focus area 3:

Investor relations, market competence, market development

## MARKET AREAS:



# The Hydrogen Cluster team



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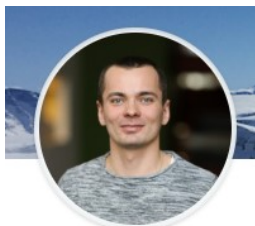
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**Janis Danebergs**  
IFE &  
FME MoZEES

# Cluster Board

- Vegard Frihammer, Greenstat
- Solveig Sæther, Hexagon
- Nina Hjorth, Ballard Europe
- Geir Brekke, NHF Board / Statkraft
- Steffen Møller-Holst, SINTEF
- Erik Lindseth, Akershus Energi
- Kari Espegren, IFE
- Arnstein Nordheim, Norsk Energi
- Kathrine Ryengen, ZEG Power



# Next Wave

## *Next Nordic Green Transport Wave – Large Vehicles*

Duration: 2019 – 2021  
Budget: 3,8 mill. NOK (50% funding from Nordic Innovation)  
Program: Nordic Smart Mobility and Connectivity

- Accelerate decarbonisation of the heavy-duty transport sector with fuel cell vehicles. The project will analyze large-scale transport of hydrogen, action plans for business potential for roll-out of hydrogen buses and trucks in the Nordic region, stimulate demand side and analyze potential for other heavy-duty equipment.
- contribute to National and Nordic hydrogen strategy processes - providing input to a possible Nordic Hydrogen Strategy.

The short-term goal of the project is fourfold:

1. To perform thorough analysis on large-scale transport of hydrogen
2. To develop and design an integrated hydrogen infrastructure roll-out plan for HD vehicles
3. To encourage Nordic industry to join forces in delivering such hydrogen equipment
4. To stimulate Nordic companies to demand and use hydrogen for heavy-duty transport

Co-financed by:



Partners:



Scandinavian Hydrogen  
Highway Partnership



Brintbranchen  
Hydrogen Denmark

VÄTGAS  
SVERIGE

Supporting partner:  
KUNNSKAPSBYEN  
LILLESTRØM





SAVE THE DATE!

THE NORWEGIAN HYDROGEN CONFERENCE

# hydrogenkonferansen

3.-4. JUNI 2020

CLARION HOTEL OSLO, BJØRVIKA



Arbeidet er i gang med utviklingen av  
Hydrogenkonferansen 2020 – som vil finne sted på  
Clarion Hotel Oslo, Bjørvika, 3.-4. juni 2020.

See [www.hydrogenkonferansen.no](http://www.hydrogenkonferansen.no)  
and [www.hydrogen.no](http://www.hydrogen.no)

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