

M⊕ZEES

Mobility Zero Emission Energy Systems



The Research Council of Norway

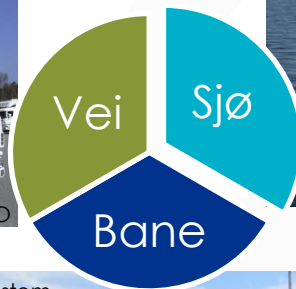
MoZEES - Norsk forskningscenter for nullutslipp i transport

Ett av åtte sentre utpekt i 2016



Tungtransportsektoren

-potensiale for innovasjon og verdiskapning



Batteri og hydrogen – teknologiverdikjeder



Materialer

Komponenter

Batterier og
brenselceller

Moduler

Systemer

260 millioner, 8 år og 19 PhD og postdocs –
en langsiktig storsatsning!

Forskningspartnere



Offentlige partnere



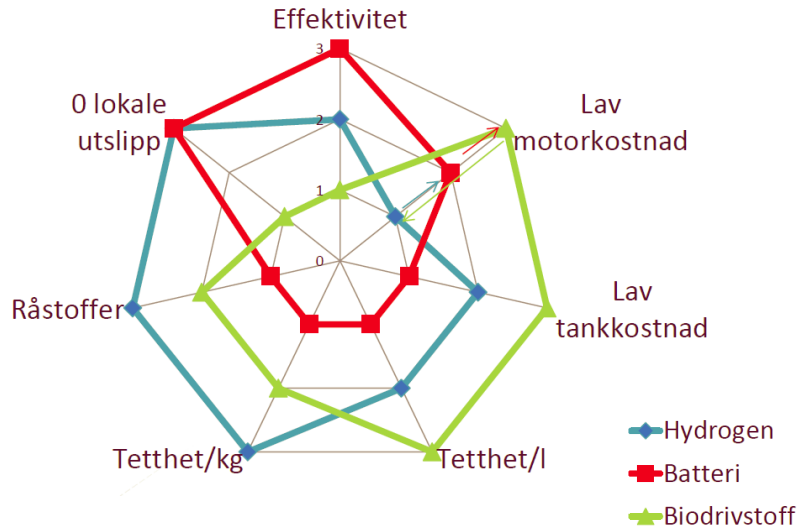
Private og industrielle partnere



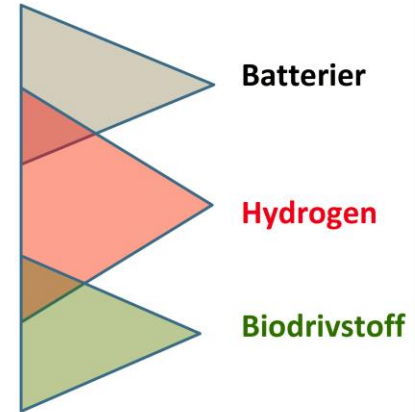
A Member of
The Linde Group



0-utslippsalternativene – ulike løsninger med ulike styrker



- Electromobility
- Hyppig start/stop
- Bykjøring (*light duty*, kortkjøring)
- Landevei (*light duty*, langkjøring)
- Lastebiler (*heavy duty*, langkjøring)
- Jernbane (*intercity*)
- Maritimt (nærkysttrafikk)
- Fly
- Shipping (interkontinentalt)



- **MoZEES studerer samspillet mellom batteri- og hydrogenteknologi**

Forskningsområdene

RA 1: Batteries (NTNU)

- Materials & components for battery: anodes, cathodes, electrolytes
- Increased performance, capacity and rate capability
- New fabrication methods
- Lower costs of production

Performance
criteria

RA 2: Hydrogen (SINTEF)

- Materials & components for water electrolyzers, fuel cells and membranes: anodes, cathodes, electrolytes
- High performance catalysts
- Durable bipolar plates
- Lower costs of production

Efficient
components

RA 3: Systems & Applications (IFE)

- Battery and fuel cells systems; hybrids
- H2 production & supply systems; water electrolysis
- Battery & H2 safety; battery & fuel cell life-time
- Optimization of system design & operation
- Design specifications of selected applications (case studies)

Design
Guidelines

New
Applications
& Systems

RA 4: Policy & Techno-economic Analysis (TØI)

- Screening of new concepts and business models
- New concepts and business models (case studies)
- Transport & energy methods; models with supporting ICT solutions
- Integration into a common framework of analysis
- Roadmaps on policy, business, and technology

MoZEES skal vise vei til nullutslippssamfunnet!



www.mozees.no

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