



The Nordic Energy Way: 12th – 13th June 2013

OUR GROUP THEME
INDUSTRY

BOILING QUESTIONS:
HOW CAN THE NORDIC REGION
REALISE SIGNIFICANT GAINS IN
THE ENERGY-INTENSIVE INDUSTRIES?

THE NORDIC R&D
OPPORTUNITIES?



Buildings

How can the Nordic region accelerate the renovation of inefficient building stock to realise energy efficiency gains?

norden
Nordic Energy Research

The Nordic Energy Way
Arena
NORDIC CARBON NEUTRALITY BY 2050

BURNING QUESTION BUILDINGS

HOW CAN THE BUILDING SECTOR INTEGRATE WITH OTHER SECTORS AND CONTRIBUTE TO SMARTER NORDIC CITIES WITH LOWER EMISSIONS?

FROM SCENARIO TO ACTION
OVERALL BURNING ?

WHERE ARE THE UNIQUE NORDIC R&D COOPERATION OPPORTUNITIES THAT BENEFIT INDUSTRY, RESEARCH AND SOCIETY?

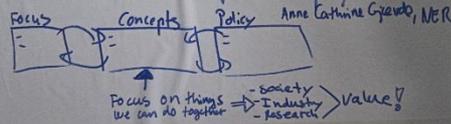
- + Well functioning energy systems + we complement each other
- We need to add value from a Nordic perspective, to the decisions made in Brussels (Influence) Bring something to the policy level
 - Differences in the countries:
 - ↳ Building types
 - ↳ Various energy resources, and systems.
 - Very National markets → difference in body
 - ↳ R&D Funding is controlled by the industry
 - "Research barriers?"
 - We are not utilizing the fact that the climates are similar

Challenges within buildings on a Nordic and national

- ① Input to the strategy } Outcome
- ② Concrete collaboration }
- ③ Magazine }

2050
1.9.2013

"Concrete suggestions for Nordic R&D cooperation projects"





Joint Nordic
Main Challenges - Top 3

LT opt. cost
action
planning

Over...
- ... sustainable

2020
support
system



is the joint CO₂ business
does CCS
achios
can CCS
Roadmap
ROADMAP

Benjamin Sorensen
Director of the National Centre for
Carbon Capture and Storage



Team 1 Bioenergy



Where are the unique Nordic R&D cooperation opportunities that benefit industry, research and society?

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6
Transport



NORMIC CHALLENGES:
WHAT MEETS THE CHALLENGE
NORMIC?

EXISTING CHALLENGES
Proposed solution
PPE - reducing efficiency,
increases in return for
reduction of el. loss for
el. intensive industry

MISSING CHALLENGES
RECOGNITION OF THE NEED FOR SAFETY
LACK OF MARKET
LACK OF...

COOPERATION
HOW CAN WE HELP EACH OTHER?
WHERE DO WE NEED EACH OTHER?





- What is the joint CO₂

1) - How does CCS ^{CCUS} benchmark ~~with~~ integrating alternatives

What can CCS deliver in terms of (cost efficiency) - storage capacity

- Common infrastructure options

3) - Public Perception measures

2) - Business Case and business ROAD MAP (\$ PPP)



Where are the unique Nordic R&D cooperation solutions that benefit industry, research and society?

JOINT NORDIC COOPERATION SOLUTIONS

JOINT NORDIC COOPERATION SOLUTIONS
COOPERATION CODE
ACTION PLAN

JOINT NORDIC COOPERATION SOLUTIONS
COOPERATION CODE
ACTION PLAN

Lars Hende
Senior VP

HOW

WHEN



