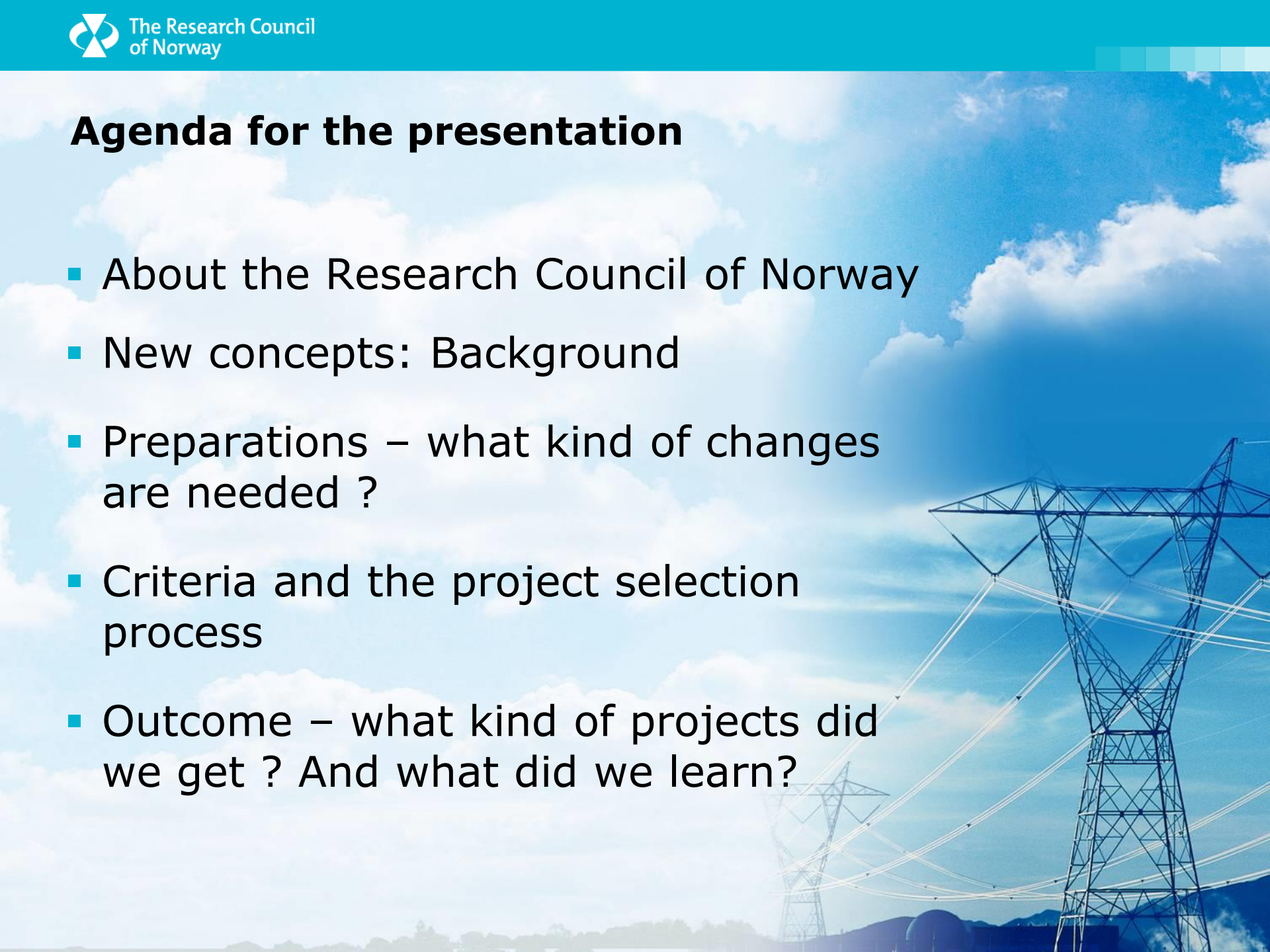


New concepts in Energy research – Experiences from a call for innovative research projects

15 June 2017 - Tone Ibenholt
The Research Council of Norway



Agenda for the presentation

- About the Research Council of Norway
 - New concepts: Background
 - Preparations – what kind of changes are needed ?
 - Criteria and the project selection process
 - Outcome – what kind of projects did we get ? And what did we learn?
- 

Agenda for the presentation

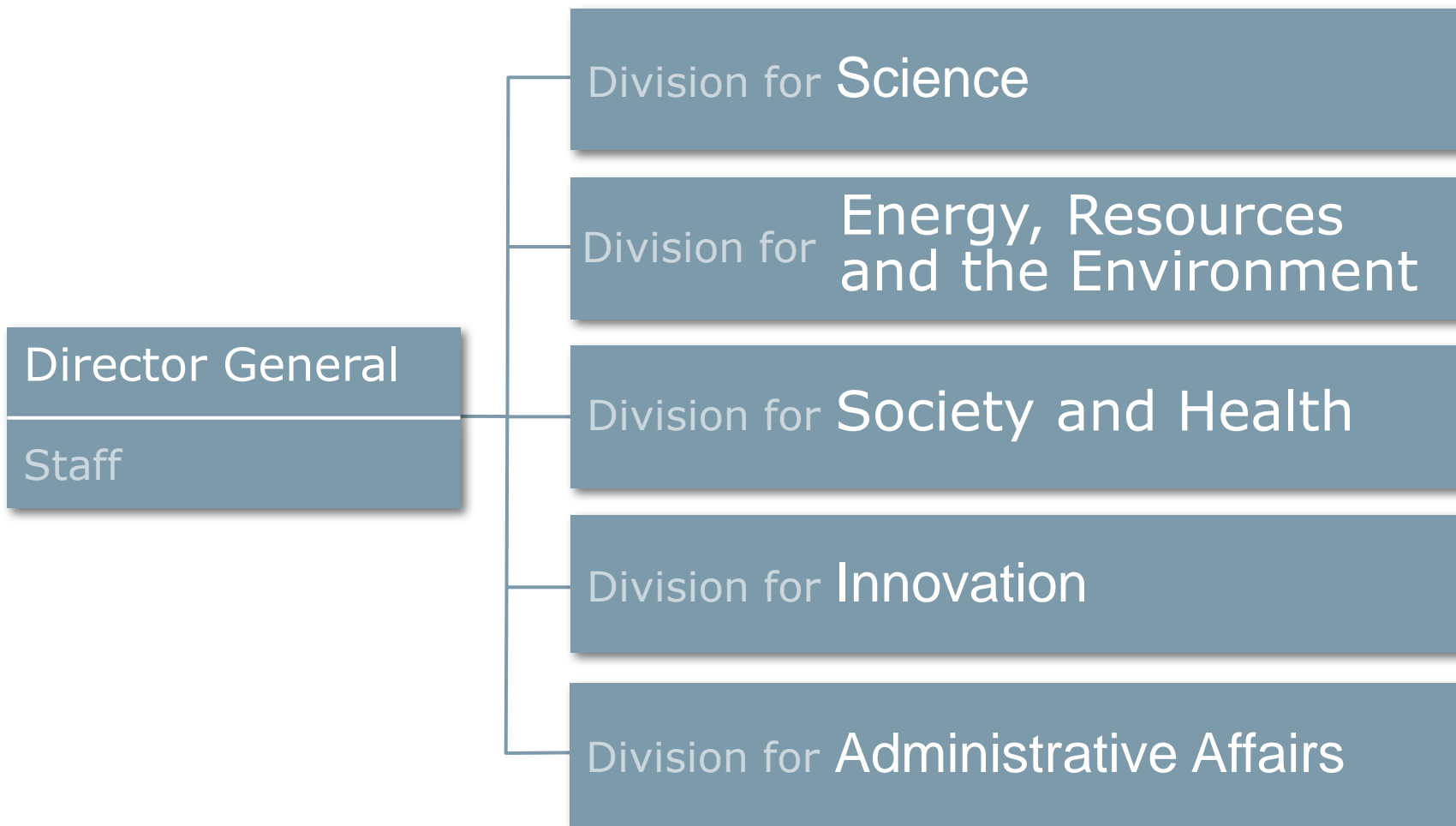
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The Research Council's roles

- Adviser to the government
- Networking and dissemination
- Research funding
 - Support basic research
 - Implement national thematic priorities
 - Support private R&D
- Internationalisation



The Research Council of Norway



RCN's targeted instruments for energy R&D

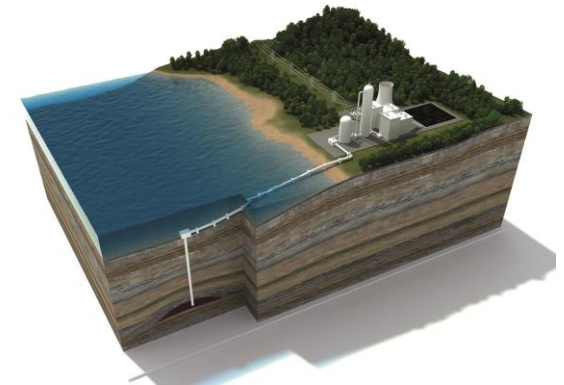
- **ENERGIX** (45 MEUR annually)

Renewable energy, energy system, end use (transport, industry and buildings) and energy policy



- **CLIMIT** (11 MEUR annually)

CO₂ Capture and Storage



- **Centres for Environmental-friendly Energy Research - FME** (20 MEUR annually)



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Background

Evaluation of the energy programme (2011)

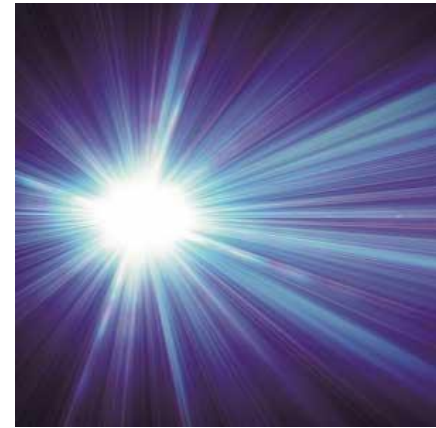
- High score on most aspects, but «it seems as the programme tends to reproduce itself.»

Evaluation of the Research Council (2012)

- “RCN should establish mechanisms that promote disruptive change in basic research as well as in more applied areas”

The ENERGIX-programme took these messages seriously:

- Stimulating new ideas and new ways of thinking became a priority in the new programme plan



ENERGIX – Large programme for environmentally friendly energy research

Energy policy, society and economics

Renewable energy

- Hydropower
- Wind and marine energy
- Solar energy
- Bioenergy

The energy system

- Integration
- Balancing services and storage
- Smart grid and components

Energy use and conversion

- Buildings
- Industry
- Hydrogen
- Biofuels
- Batteries

New energy concepts

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New energy concepts a priority in the programme plan

ENERGIX – wants to stimulate to

- new ideas
- new concepts
- new innovations
- new businesses

by

- motivating the applicants to be more creative in finding solutions
- allowing the researchers to take more risks



How to make the research community believe that the RCN really wanted new ways of thinking?



Changes were made all through the call

- Pilot call
- New criteria were developed
- Standard criteria were used in a different way
- New template for project descriptions
- New selection process
 - 2-stages selection process
 - A finale for the best applications – with personal pitching of the idea in front of a scientist panel

Ambitions with the first call

- Find and fund 2-3 creative and exciting research projects
- Attract really good scientists from «new» research areas
- Stimulate new cooperation networks, nationally or internationally
- High risk/high gain, but with closer follow-up routines
- Gain experiences from the process – on many different levels

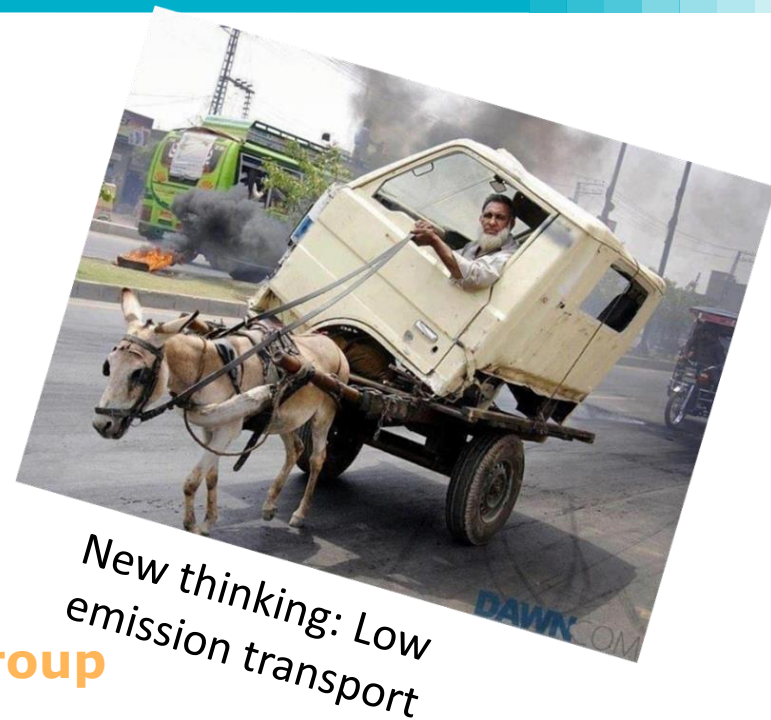


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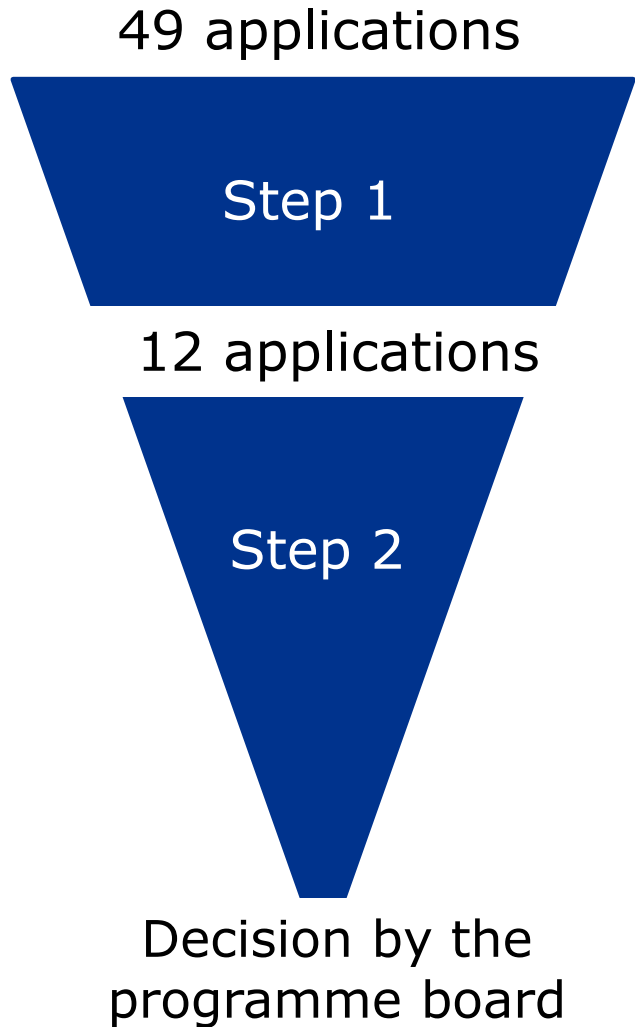
Important – but difficult: New criteria

1. Degree of novelty
2. Potential impact
3. Risk management
4. Scientific merit;
5. The project manager and project group
6. Socio-economic profitability and/or benefit to the environment
7. Relevance relative to the text of this call



The work plan should be divided into two phases with a verifiable milestone between the phases.

A two-stages review process



Assessed by international experts:

- Degree of novelty, potential impact and risk management (1-3) were most important
- «Scientific merit» and «project team» (4,5) – to ensure the level of scientific quality

Assessed by an international panel

- Presentation of the proposal by the PM
- Questions from the panel to the PM
- Recommendation with ranking of the proposals

The applicants' feedback on the announcement



What's best about the call:

- more high-risk projects
- more cutting-edge projects.

Questback 60% response

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The first four new concepts projects

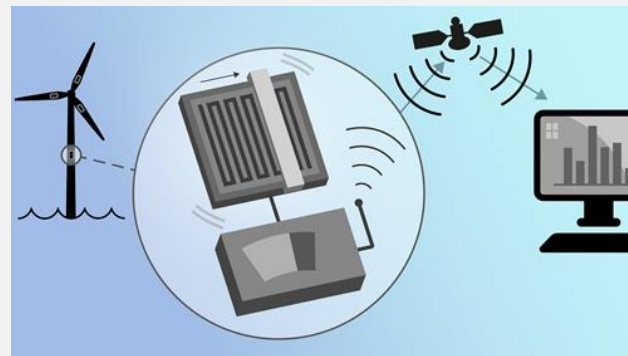
Nye batterier kan løse lagringsproblemet for fornybar energi

Ole Sigmund Kjos, Sintef



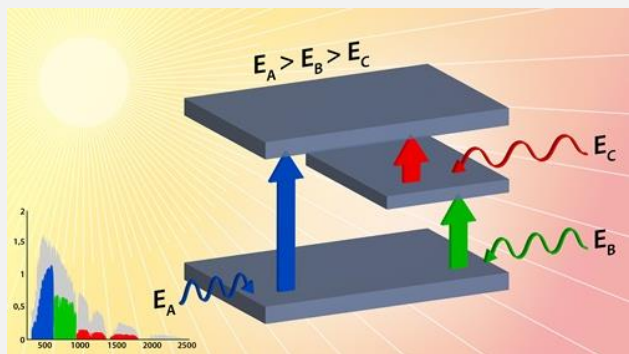
Mikrokraftverk gjør fornybar energi mer lønnsomt

Eivind Halvorsen, Høgskolen i Vestfold



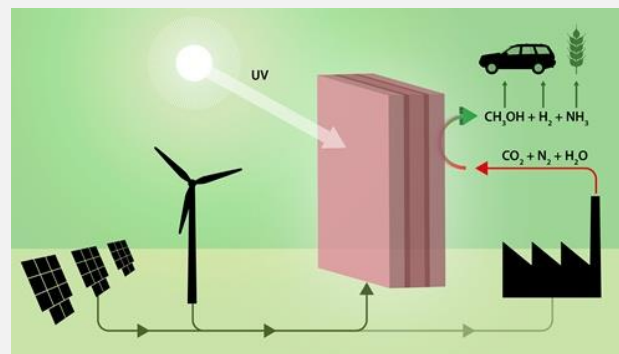
Ny type solcelle fanger større del av lyset

Ole Martin Løvvik, Sintef



Avanserte materialer lager drivstoff og gjødsel fra CO₂ og luft

Truls Nordby, UiO



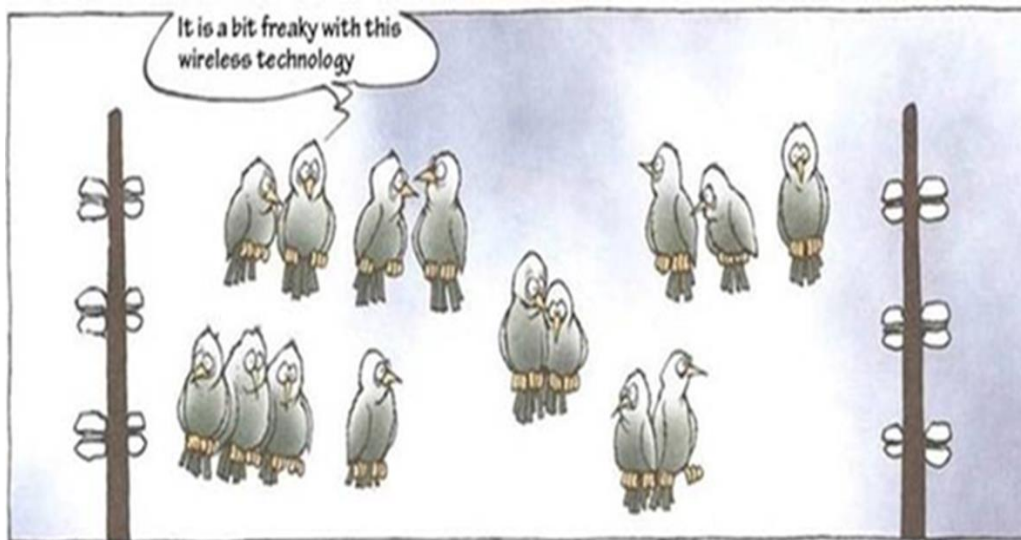
Ambitions with the first call

- ✓ ■ Find and fund 2-3 creative and exciting research projects
- ✓ ■ Attract really good scientists from «new» research areas
- Stimulate new cooperation networks, nationally or internationally
- ✓ ■ High risk/high gain, but with closer follow-up routines
- ✓ ■ Gain experiences from the process – on many different levels



Summing up – some experiences

- To work with the New concepts pilot call was interesting and motivating
- The experience gained has been useful also for other parts of the RCN
- The criteria and the template for project description worked quite well - but can be further developed
- Exchange of experiences with similar initiatives will be necessary



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Most important:

Stimulate disruptive thinking and acceptance for more risk-taking in the research communities!

Thank you for your attention!

