

# A transition from path dependency to path creation?

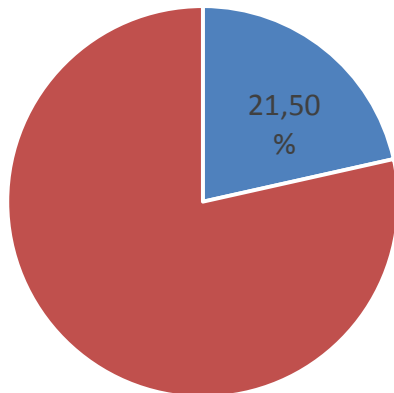
The Entering of the Oil Economy in Northern Norway

Trond Nilsen, Ph.D., Senior Researcher  
Northern Research Institute, Alta

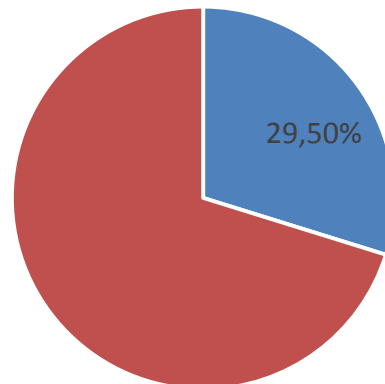
# Petroleum in Norway

- Norway's largest industry in value creation, state revenues and export value
- 150 000 employees (incl. indirect 240 000)
- The net government cash flow from petroleum activities in 2012: 401 Bill NOK.
- Important for financing the Norwegian welfare state

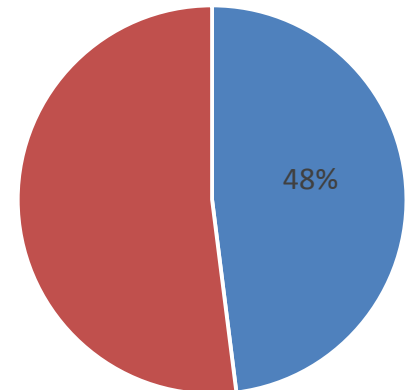
Petroleum sector share of GDP

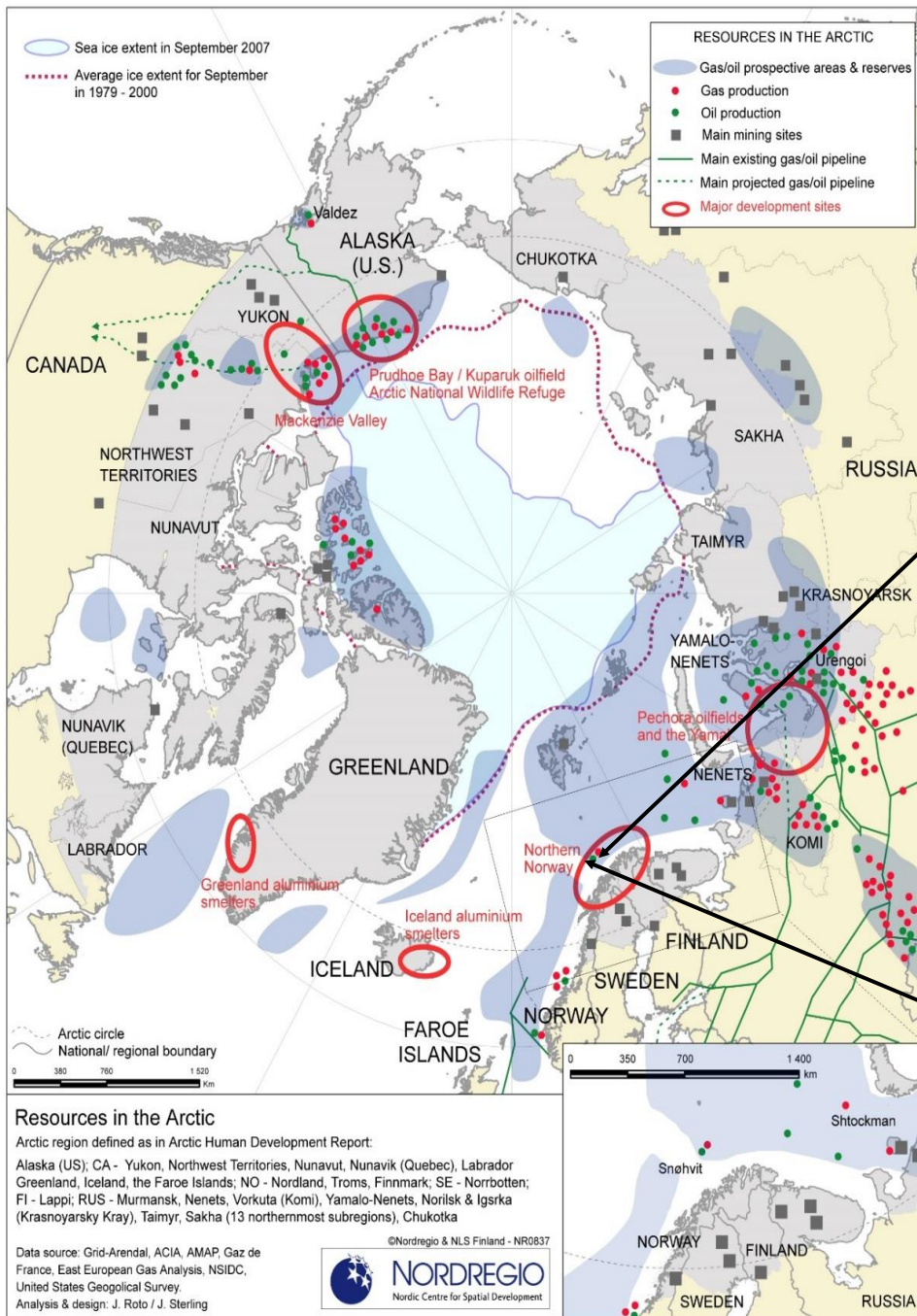


Petroleum sector share of state revenues



Petroleum sector share of total exports





**Goliat offshore oil field processing project**  
 A floating processing, storage and offloading unit – FPSO will be in operation in the Barents Sea in 2014/2015



*Operator: ENI*

**Snøhvit gas processing project**  
 A LNG-plant in Hammerfest came on stream in 2007. Operator Statoil

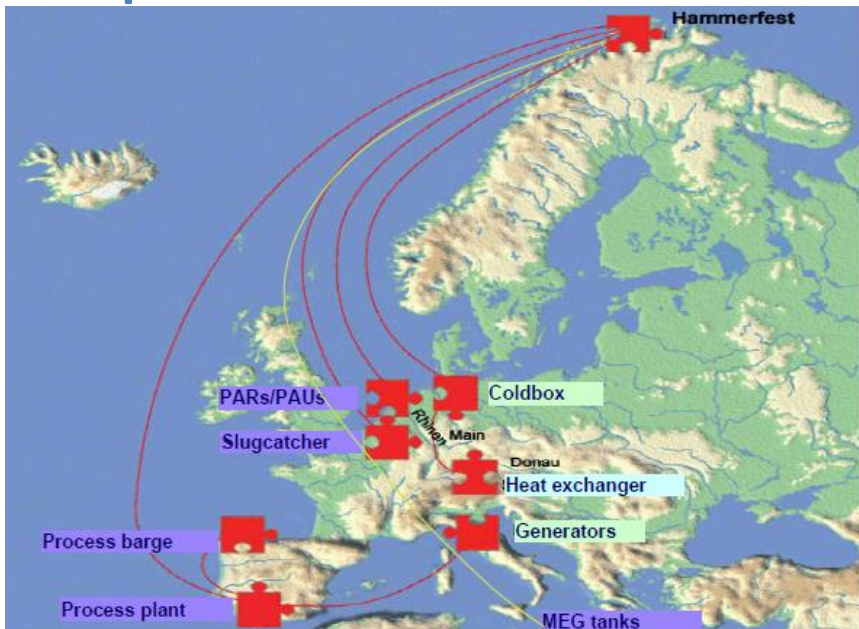




# The Snøhvit project – Field Development



# Global Production Network: Putting together a jigsaw puzzle of modules constructed all over Europe...

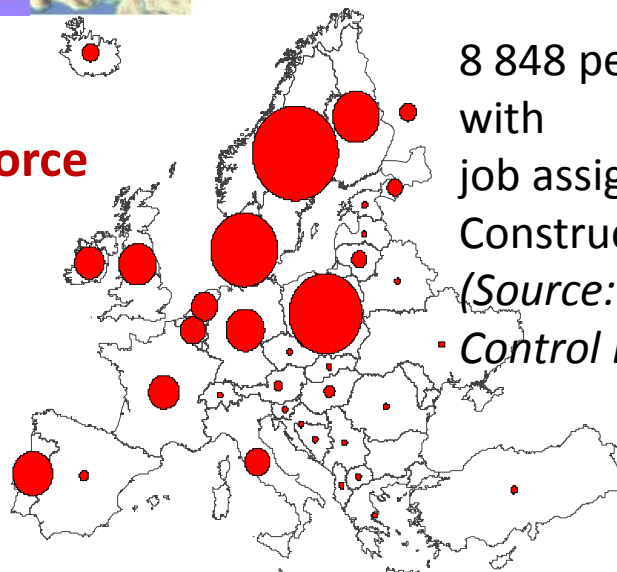


CapEx ~ 6 Billion Euro  
Onshore Melkøya Plant ~ 5 B Euro  
Offshore/subsea ~ 1 B Euro

Foreign contractors /subc 37 %  
Norwegian contractors /subc 63 %

North Norwegian subcontractors:  
9 % of Norwegian share

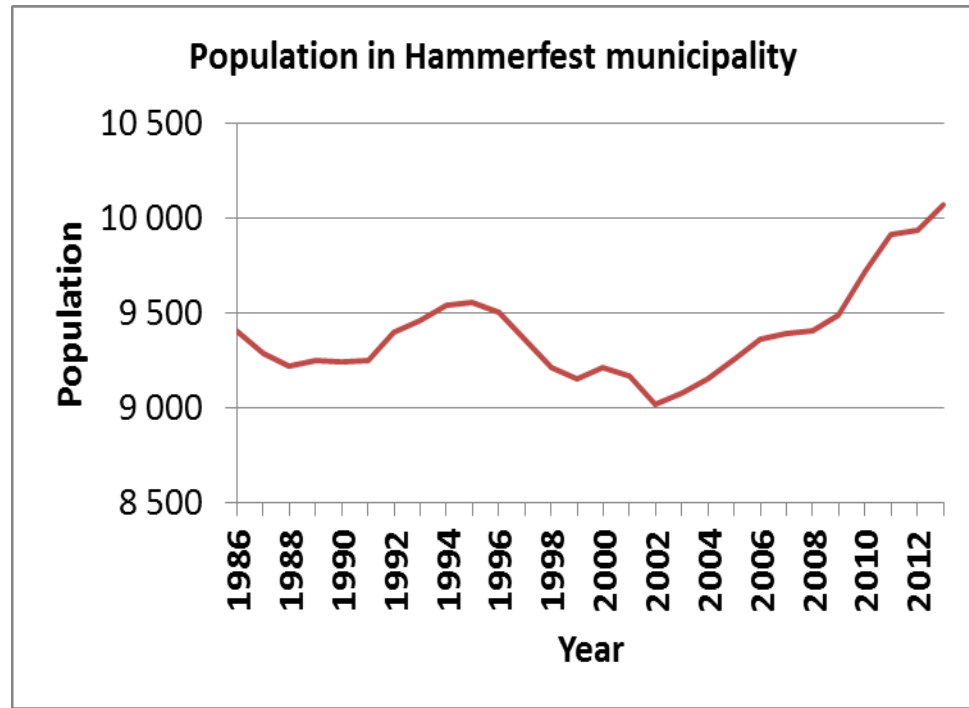
... with contractors utilising an international, commuting workforce



8 848 persons of foreign nationality with job assignment at Melkøya Construction camp up to June 2008  
(Source: Hammerfest LNG Access Control Database)

## The Snøhvit operation phase:

- A high portion of the Statoil operation staff (338) in Hammerfest comes from the region of Finnmark (85%)
- This applies as well for main contractors in the operation contracts
- New job opportunities leads to re-migration of educated young northerners to Hammerfest



Economic development and population growth

17.6 Mill Euro each year from Statoil to the local municipality (property taxes) – investment in public infrastructure





# Goliat development project



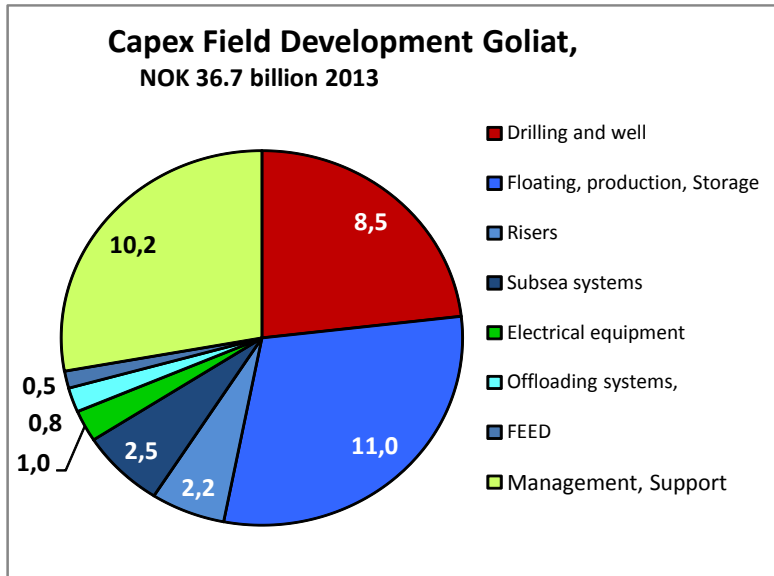
First oil production in NO Barents Sea, Goliat

Field development 2010-2015

Operational phase 2015-2031

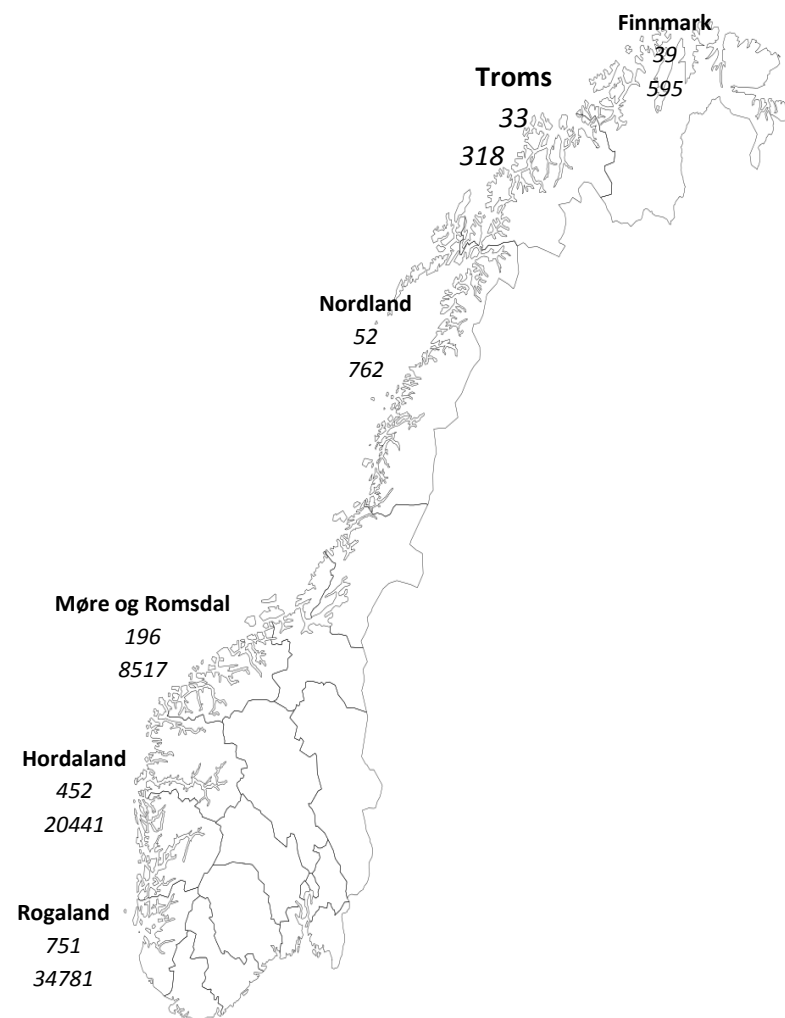
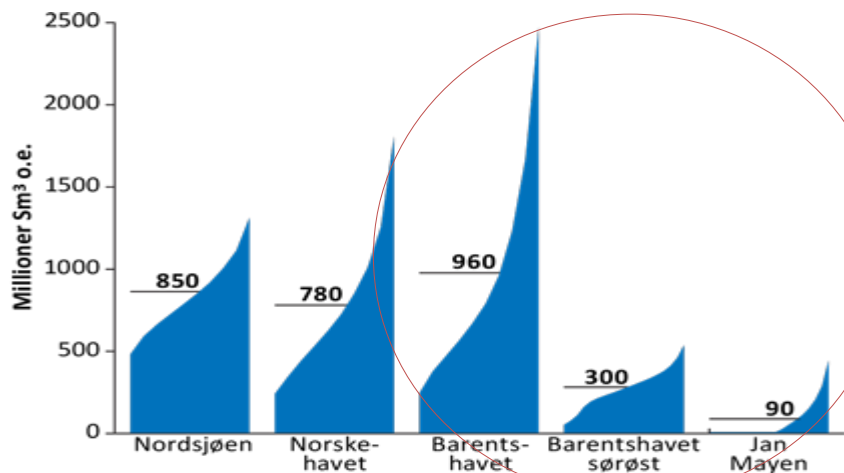
Creates local impacts in terms of employment and diversity in labour market

150 new jobs + contractors and sub-contractors



# Mismatch between current geographic distribution of employment and un-discovered resources

County	Total firms	Employees	Total %
Nordland	52	762	0.74 %
Troms	33	318	0,31 %
Finnmark	39	595	0,58%
Rogaland	725	34.781	34 %
Hordaland	452	20.441	18 %
Møre og Romsdal	196	8517	8 %





# Local and regional firms

Local and regional labor need to upgrade their competence to develop capacity for the operational phase, and forget about the construction period



# Can we get there?

Conditions for developing a competitive local supplier industry through cooperation between public and private sector

*Contract- and procurement strategies*

*Cooperation between industry and education sector and training*

All instruments have the same target:

To increase local content through agglomeration dynamics

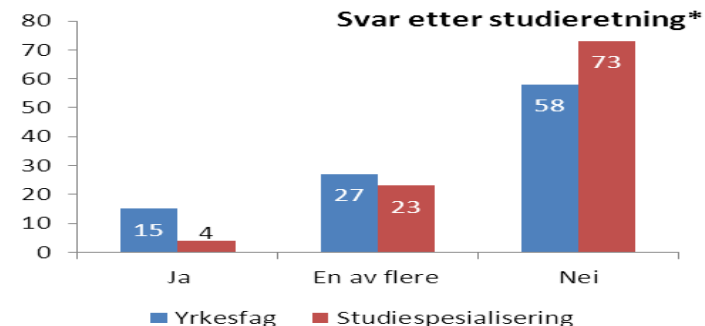
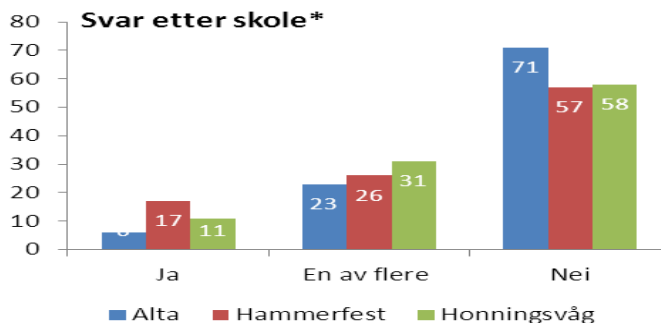
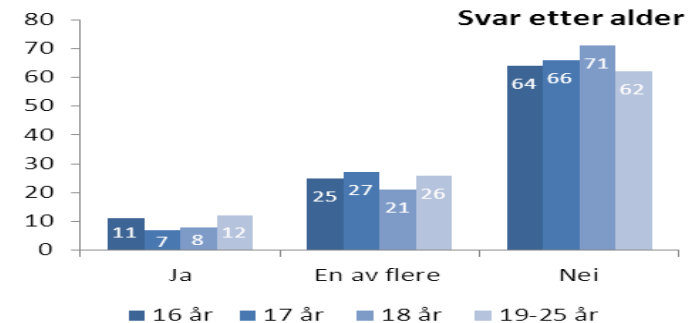
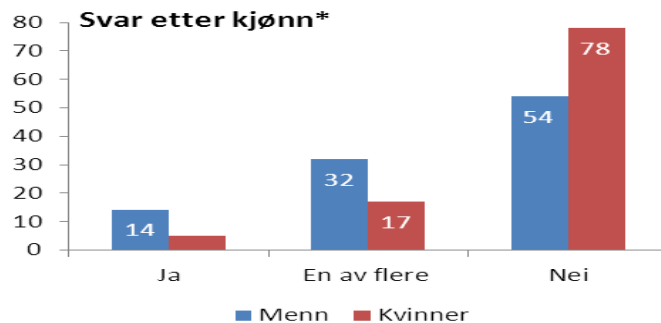


# Challenges Human Capital for the industry and the region

Selection of study with a view to future work in the oil and gas industry

9 % yes, 25% one of several options, 66 % no

Samlet svarfordeling (n=1 104)

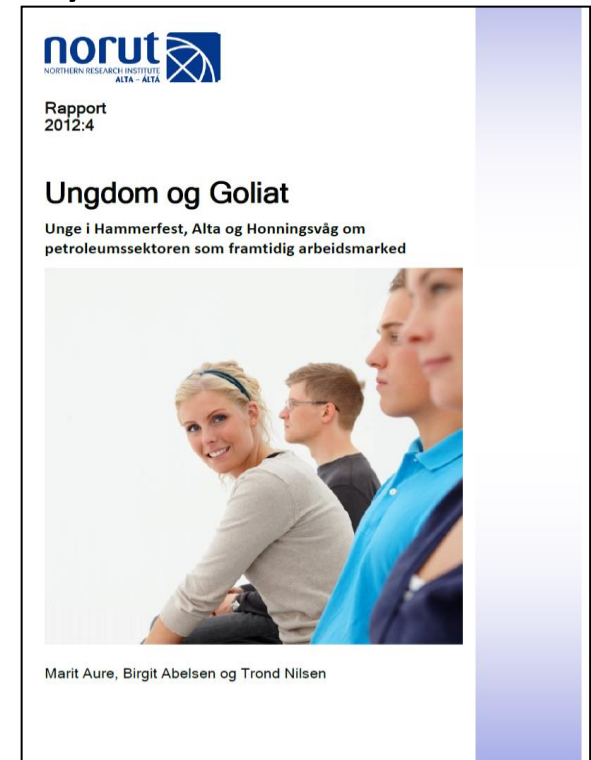




# Human Capital is the key

Enhanced local content and sustainable development is all about developing competence and learning in the region.

- To offer relevant education for youth in Norway
- Cooperate with industry and government about needs, short and long term
- Ensure apprenticeship in MNC



# Policies to increase local content in High North

- Brakedown of contracts in smaller units
- Requirement of prescense to main contractors in proximity to the modification and maintaince contract
- Reducing economic support to commuting in the operational phase
- Requirement of local engineering and administration within 30 minuts proximity to the plant
- Respond time on supplies

# Path dependency or path renewal for Northern Norway?

## MNC as economic capital

- Conduct a minimum of operations in north
- Manage logistics and project operations from headquarters
- Global production networks taken to the north and supply company needs, including even traditional goods and services
- Contracts designed in the same way as elsewhere
- Minor contribution to building expertise in their surroundings, other than support services helicopter and supply of the most necessary supplies
- Innovations, processes, and learning arenas between companies at the forefront of technology (e.g. based in other countries)

## MNC as a balance between economic capital, networks and knowledge

- Enable providers locally, and adapt to their surroundings and expectations as far as possible
- Build capable local and regional businesses by different means
- Sponsorship of R&D in education sector
- Operational office in geographic proximity
- Demand for goods and services guided by local content, and guidelines for their main suppliers to establish in geographic proximity to the operational phase.
- Participate and engage in processes of development in enterprises, and network of local community development

# Planning lessons: What can municipalities in the Arctic learn from this?

## Communication is important

- Newcomers must talk to experienced municipalities who have been through these processes before because it is better to plan for possibilities and learning, than be given opportunities for poor experiences
- It is better to be **pro-active and take initiatives**, than to react to late
- Familiar solutions is better than unclear procedures
- *Interacting and organized initiatives between municipalities is a good idea*

*It is easier to handle known problems on new meetings, than to have first meeting with new problems.*



Thank you!

[trond@norut.no](mailto:trond@norut.no)

Trond Nilsen  
Senior Researcher, Norut Alta  
[www.norut.no](http://www.norut.no)