UNIVERSITY OF EXETER

inspiring research

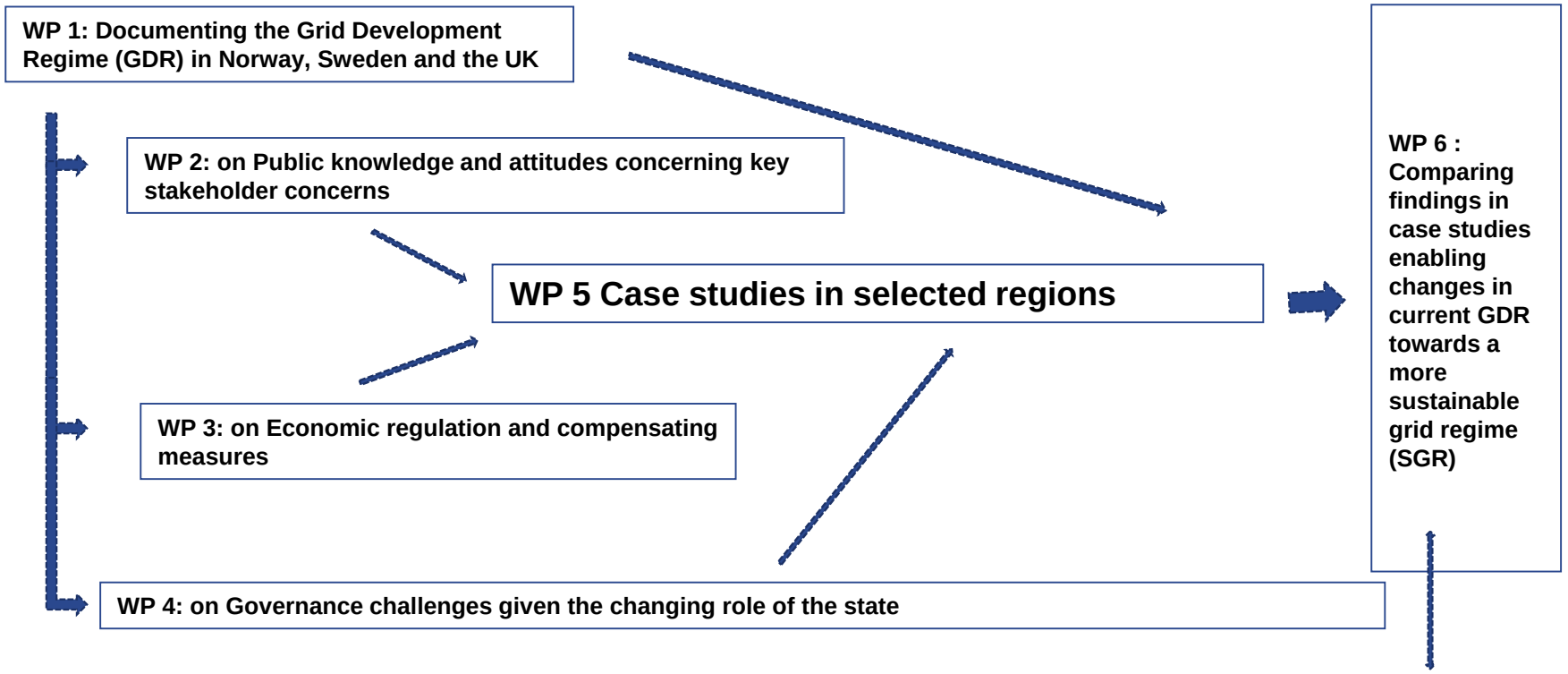
Grid Infrastructure and Public Acceptance

Contents

Welcome and introduction

Patrick Devine-Wright
and Audun Ruud

The research design of SusGrid



Dialogue conferences for promoting consensus and more effective participation by public actors and stakeholders.

Workshop 1 Related to WP1	Workshop 2 Related to WP 5	Workshop 3 Related to WP 6

Start 2011 2012 2013 2014 End of project

Challenges and opportunities in public engagement

Speakers

1. Paul Hawker, Department for Energy and Climate Change
2. Roseanne Thomas, National Grid
3. Nick Clack, Campaign to Protect Rural England
4. Lisa Hammer, Norwegian Water and Energy Directorate
5. Irene Meldal, Statnett
6. Oddvin Lund and Nicolas Rodriguez, Norwegian Trekking Association

Department of Energy & Climate Change

Legislative and Regulatory Framework for new Grid Infrastructure

Paul Hawker
Future Electricity Networks

Department of Energy & Climate Change

Legislative and Regulatory Framework

- Statutory Duties
- Planning Process
- Regulation

Department of Energy & Climate Change

Statutory Duties for Network Companies

The Electricity Act (1989) Provisions

Develop and maintain an efficient, coordinated and economical electricity transmission or distribution system, and to facilitate competition in the supply and generation of electricity.

Shall have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archeological interest; and

Shall do what he reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects

This means network companies have a statutory duty to provide a connection whenever or wherever one is required and have due regard to costs which are ultimately borne by consumers. But also to properly consider and mitigate impacts.

Department of Energy & Climate Change

Planning Act 2008 Provisions

Network companies have the duty to:

- Publicise their plans;
- Consult including with Statutory Consultees such as Natural England and English Heritage, Local Authorities, Directly affected parties eg Land Owners, and Local Communities; and
- Take account of responses to publicity and responses

- More effective consultation expected by network companies on proposals **before** development consent application submitted

Department of Energy & Climate Change

National Policy Statements

- NPSs of most relevance to High Voltage Electricity Lines are overarching Energy NPS (EN-1) and Electricity Networks Infrastructure NPS (EN-5)
- NPSs provide the primary basis for decisions taken by the Planning Inspectorate and DECC Ministers
- NPSs require the consideration of whether any adverse impacts arising from the proposed development outweigh its benefits. This means broader benefits arising from the connection of energy sources are taken into account by decision-makers alongside any adverse impacts.
- A range of factors are considered in the development of proposals for new high voltage network infrastructure including:
  - Technology
  - Environment
  - Visual Amenity
  - Health and Safety
  - Socio-economic impacts
  - Cost
- In developing proposals and assessing impacts network companies are expected to undertake effective stakeholder engagement, but NPSs not prescriptive on how this should be achieved.

Department of Energy & Climate Change

Regulatory Framework

- New regulatory framework for network companies introduced in 2011
- It places a renewed emphasis on sustainability and stakeholder engagement
- Network companies expected and incentivised to engage with stakeholders both in developing well justified Business Plans for their activities over the 8-year price control, and during the price control itself
- Ofgem, as the independent regulator, sets and ensures compliance with the price control framework, for example in ensuring that agreed outputs are achieved in a cost effective way. Ofgem does not have a direct role in the planning process. This enables network companies to address, where necessary, the impacts of their projects.

Department of Energy & Climate Change

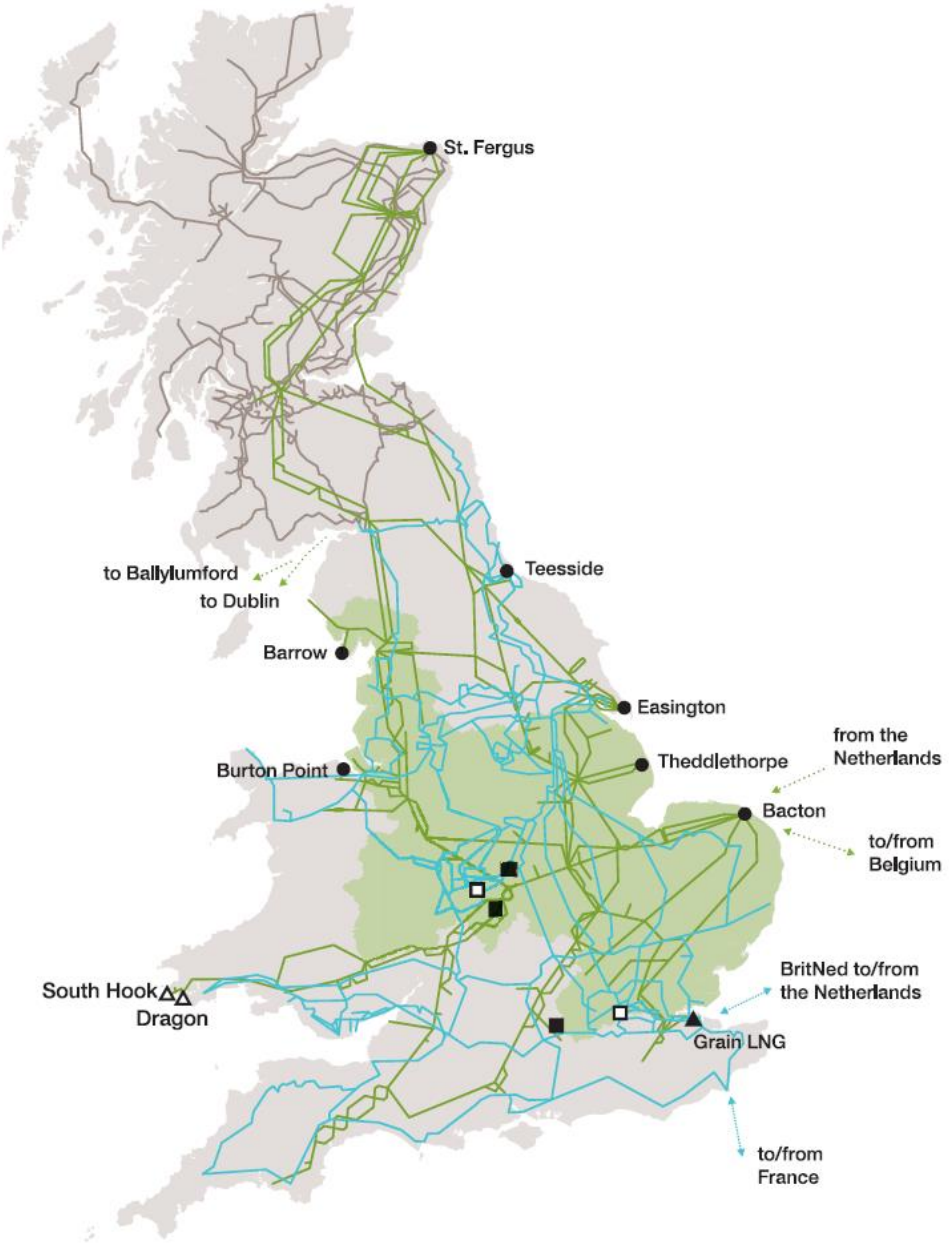
Summary

- Both the Planning and Regulatory Frameworks seek to strike the appropriate balance between costs and mitigating the impacts of new grid infrastructure.
- They require network companies to undertake effective stakeholder engagement in developing well justified proposals for new infrastructure, taking into account their obligations.
- The requirements are not prescriptive in how stakeholders are engaged.
- Both frameworks are relatively new for networks with the transmission price control starting in 2013 and only two transmission network projects having completed the development consent process.
- Interested to hear about experiences in stakeholder engagement and attitudes on electricity networks and how this compares to other countries.


nationalgrid
nationalgrid

Our UK Network

nationalgrid



UK Transmission*

Scottish electricity transmission system

English and Welsh electricity transmission system

Approximately 7,200 kilometres (4,470 miles) of overhead line, 1,400 kilometres (870 miles) of underground cable and 329 substations.

Gas transmission system

Approximately 7,660 kilometres (4,760 miles) of high pressure pipe and 23 compressor stations connecting to eight distribution networks and third party independent systems.

Gas distribution operating area

Approximately 131,000 kilometres (82,000 miles) of gas distribution pipeline owned and operated by National Grid.

nationalgrid

The energy challenge

Sustainability

Affordability

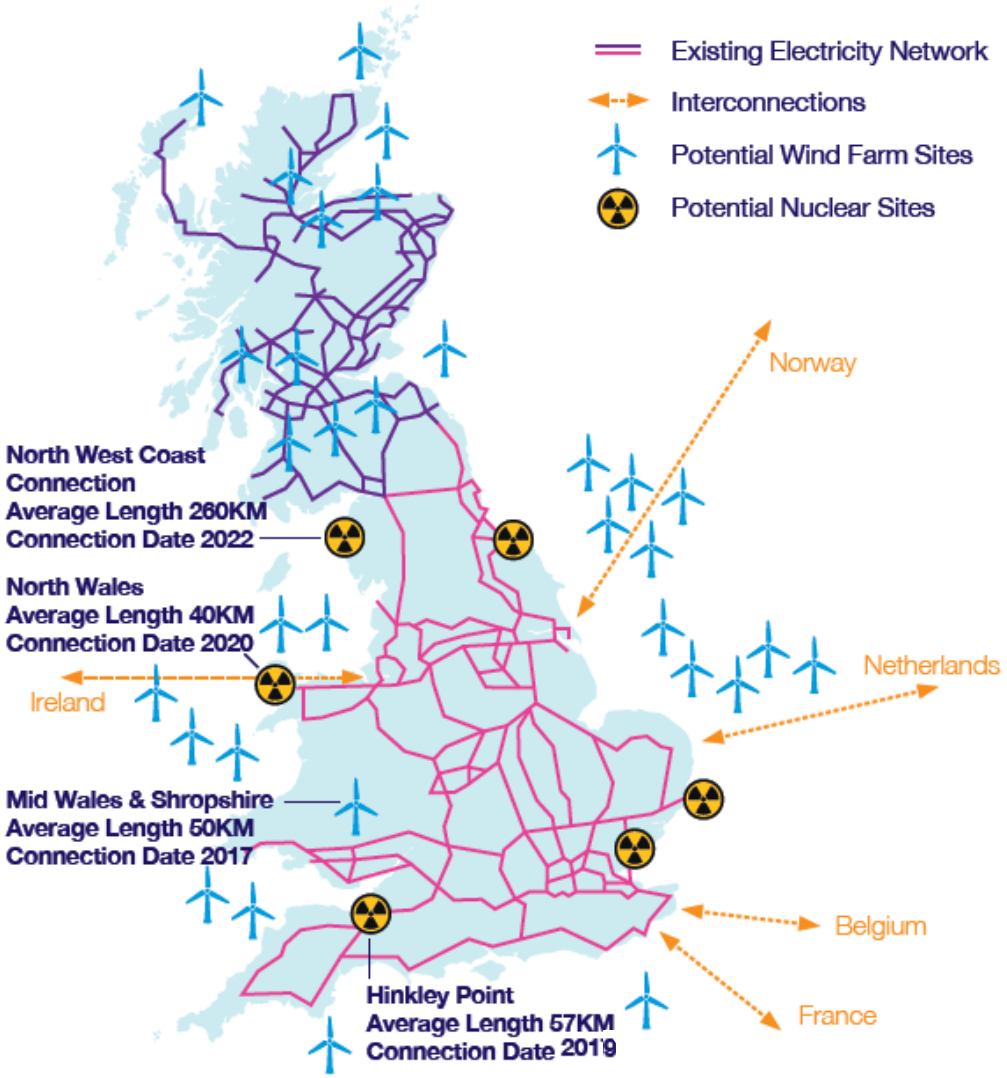
Security of supply

15% of all energy to come from renewable sources by **2020**

80% reduction in CO_2 emissions by **2050**

nationalgrid

Creating the network of the future



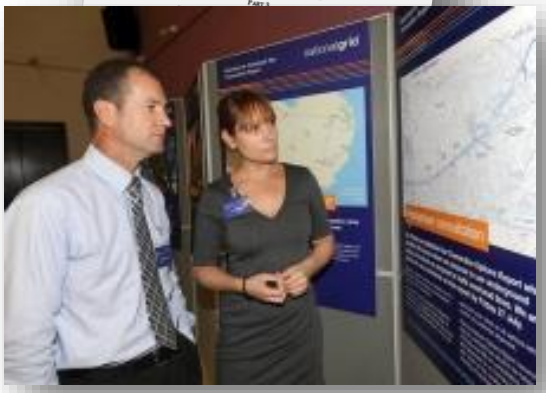
£12.8bn

Investment between 2011 and 2021

The Challenge

To build public acceptability for the largest investment programme in more than 50 years…

In the beginning…



- **New planning regime**: a step into the unknown
- **Fundamental change** to previous practice required a new approach
- A **steep learning curve**
- Approach met statutory guidelines but also needed to build new approach to **stakeholder engagement and consultation.**

Our ‘better practice’ approach

- A **codified approach** to consultation – clear principles and process – together with **tailored engagement** strategies to reflect needs of different communities
- **Early engagement** to understand local considerations and **build trust**
- **Regular communication** and dialogue, inc. outside consultation
- **Demonstrate we have listened** to feedback throughout the process
- **Innovation** in communication and engagement to meet public needs
- Greater emphasis on **mitigating visual impact** – better recognition of **environmental** and **social** impacts as well as system and cost issues

Beyond consultation

- Engage people in a **broader debate** about the energy challenge
- **Building relationships** to tackle significant issues outside of consultations
- **Innovation** to address concerns – especially **visual impact** on rural landscapes
- **Education** of future generations

RESPONSIBLE BUSINESS OF THE YEAR 2014
BUSINESS IN THE COMMUNITY

nationalgrid

What experience has taught us

- Relationships matter!
- Listening to people is vital - it's a two-way conversation
- Be proactive and share information – trust people to understand complicated projects
- Look beyond consultation – how else can you build public acceptability?
- It's about getting the balance right
- Always keep learning


Our society
is built on
energy

Campaign to Protect Rural England
Standing up for your countryside

Grid infrastructure and public acceptance

24 November 2014

Nick Clack, CPRE

UK grid infrastructure planning: Theory & practice

- Environmental sustainability part of the “energy trilemma”
- Government emphasises that “sustainable development” underpins planning policy
- Need to balance global and local environmental impacts:
  - Local impacts not always adequately considered through planning system

Problem with public participation

- Current grid infrastructure planning system doesn't always help to involve public sufficiently early or meaningfully
- Reliant on individual actors within the system adopting good practice:
  - E.g. National Grid's proactive approach to talking to local groups at early stage of plans

Opportunities and challenges (1)

- Facilitate greater public involvement in planning; inherent in system
- Good work by NG and stakeholder advisory group emerging from Visual Impact Provision project for existing grid infrastructure:
  - Opportunity and challenge for NG to ensure all new projects take similarly rigorous approach to minimising local impacts
  - Duty to connect vs environmental protection duties

Opportunities and challenges (2)

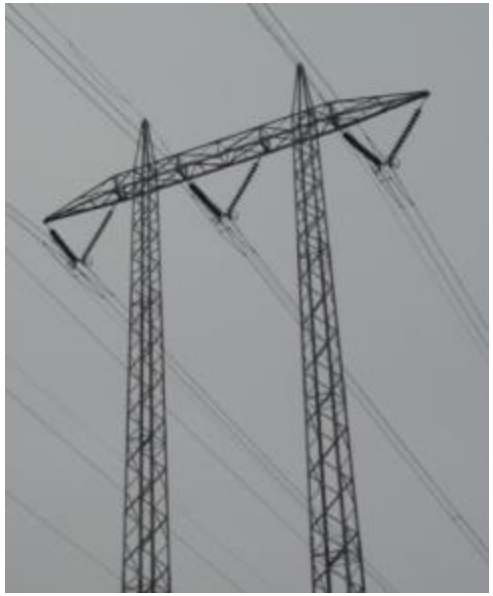
- Opportunity to think more strategically about future grid and other infrastructure needs
- Armitt Review:
  - Identify needs over 25-30 years across sectors
  - Sector plans involve public consultation
  - Opportunity to identify options public most value and support, rather than consulting on individual projects
  - Will public involvement be meaningful?
- Engagement of more people in debate about grid/ other infrastructure choices likely vital

Licensing and local participation in Norway

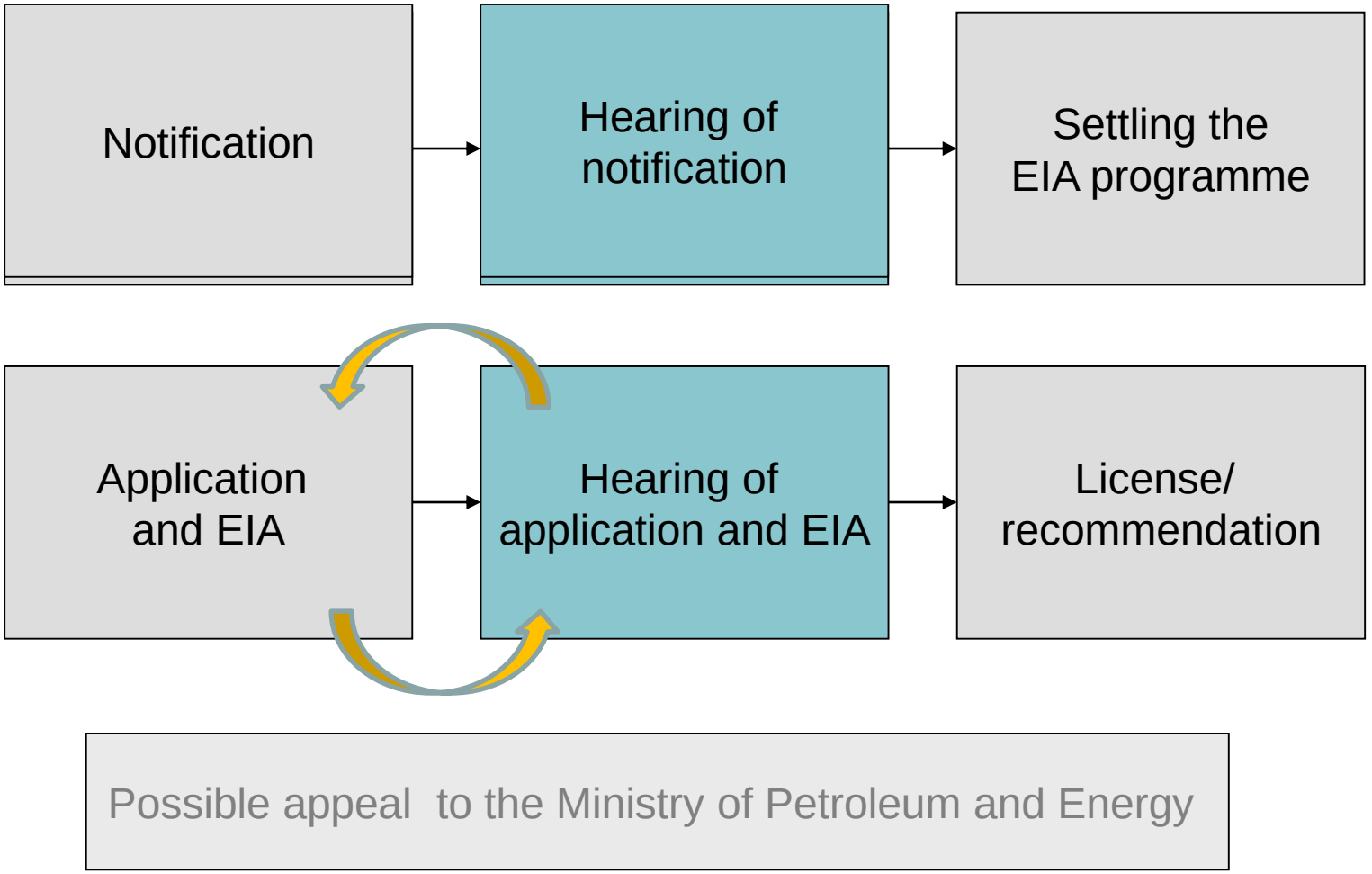
Lisa Vedeld Hammer
grid licensing section

NVE

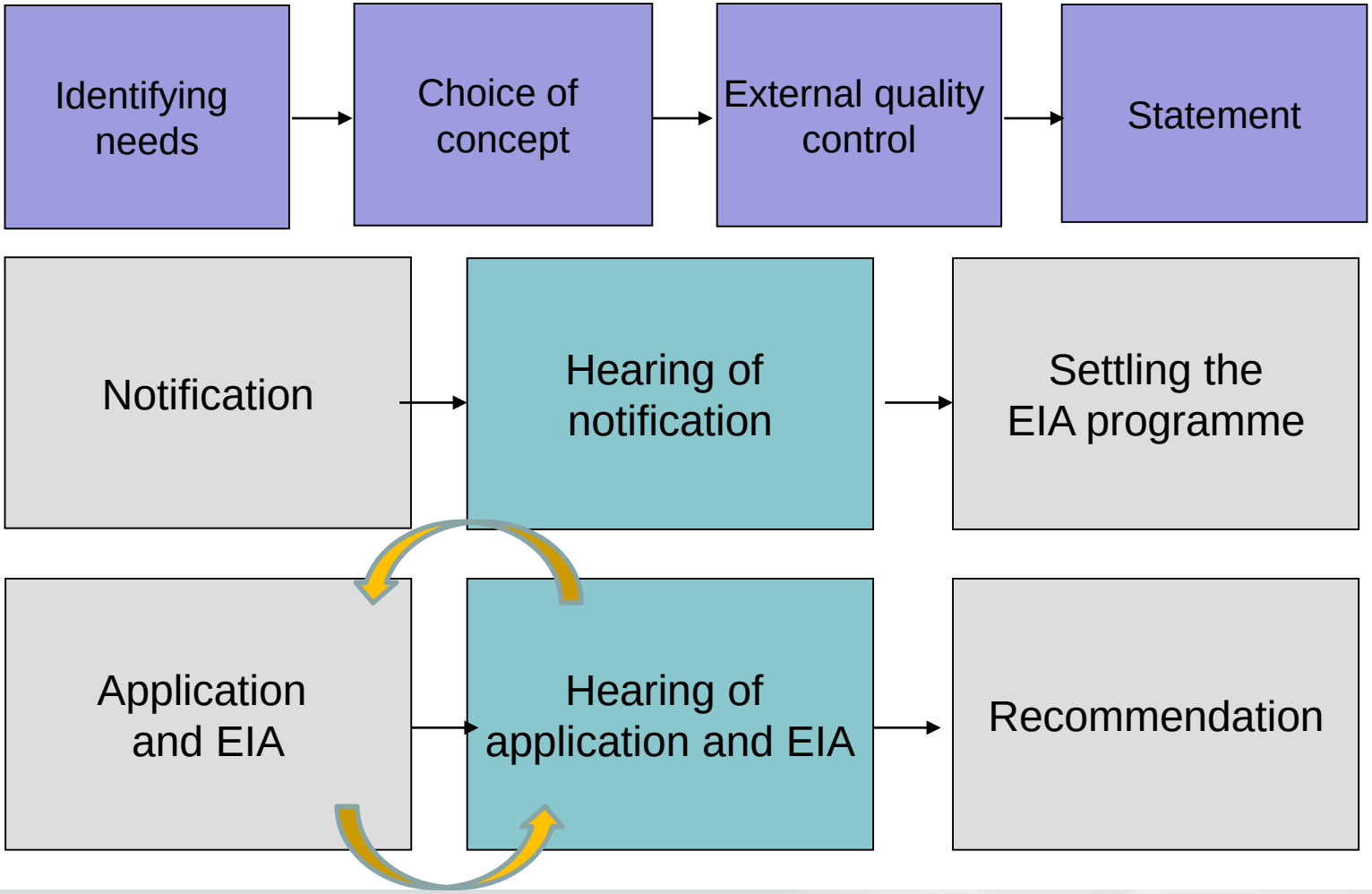
- Subordinated the Ministry of Petroleum and Energy
- Delegated licensing authority
- Set to administer water and energy resources



Process for granting licenses in Norway



Licensing with Concept Evaluation



Public participation

- Meeting with local and regional authorities
- Public meetings hosted by NVE

Site survey

NVEs role as licensing authority

- Guide project developers through the licensing process
- Coordinate the licensing process
- Set EIA requirements
- Arrange and chair public meetings, and involve local and related authorities
- Do the overall evaluation and determine (or propose) if license should be granted or not
- Determine (or propose) conditions to granted license
- Supervision and inspection

NVEs experience with the process

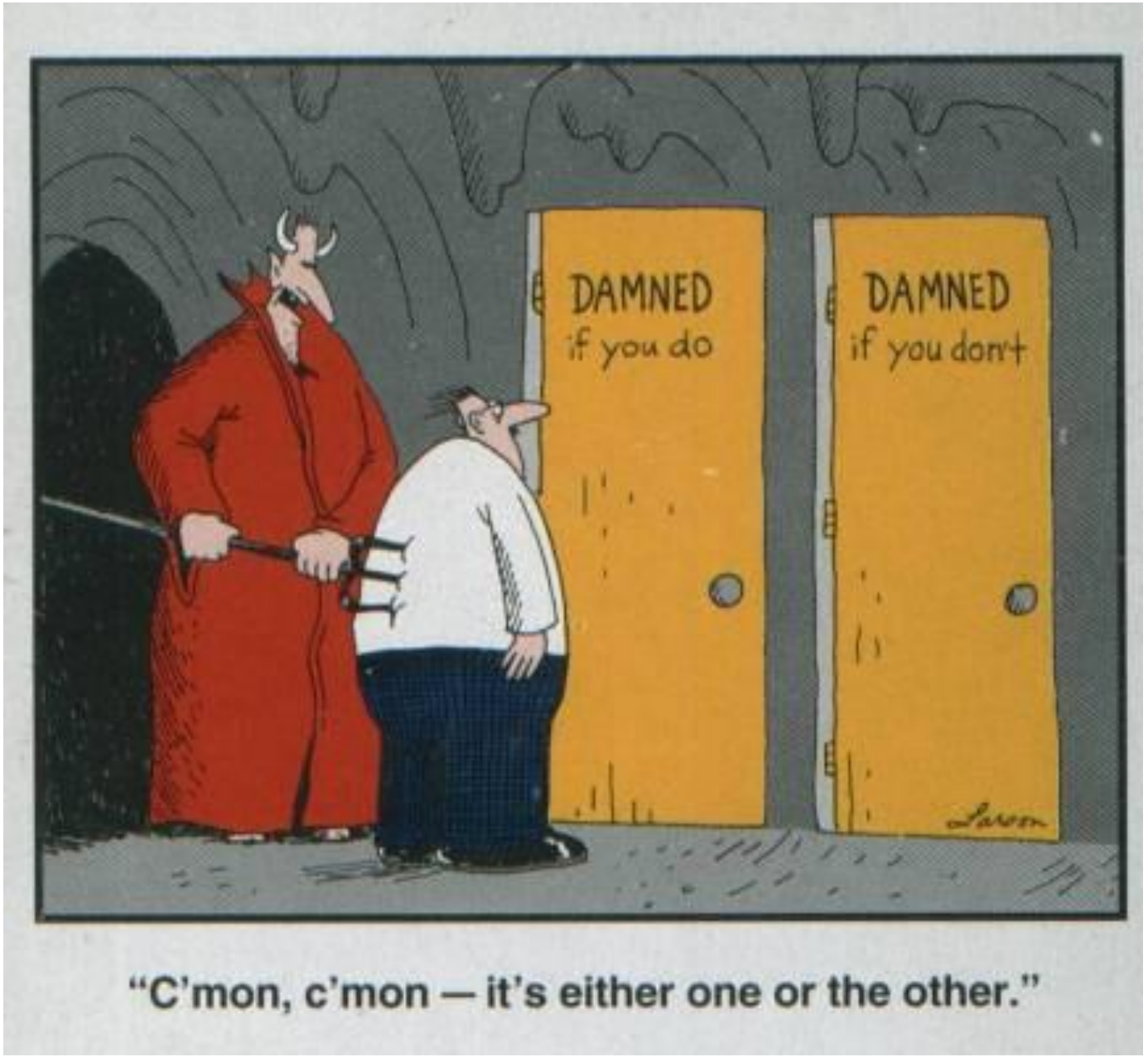
- Time-consuming, but ensures equal treatment
- An open, thorough and good process gives the best solution
  - Importance of local participation

- Criteria for success?
  - Ownership and good information flow
  - Early contact with authorities, NGOs, land owners
  - Good applications!

Licensing is an art of balancing

Challenges

- Lack of knowledge among the public
- Technical and difficult information
- Communicate at right time and level
- Media find facts boring
- Long and extensive process
- Engaging stakeholders throughout the process
- Lack of political guidelines

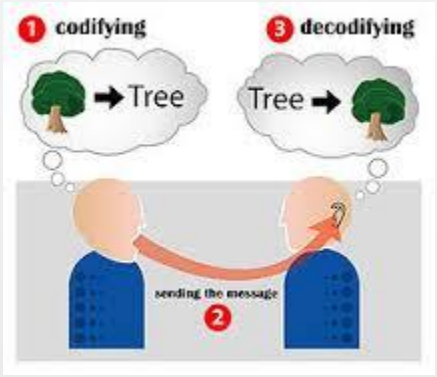

DAMNED
if you do
DAMNED
if you don't
"C'mon, c'mon — it's either one or the other."

Public acceptance:
Lessons Learned from Norwegian Power Grid Projects

Irene Meldal
Vice President Corporate Communications
Statnett

Statnett

To communicate should be quite simple



But our experience is somewhat different ….

Statnett

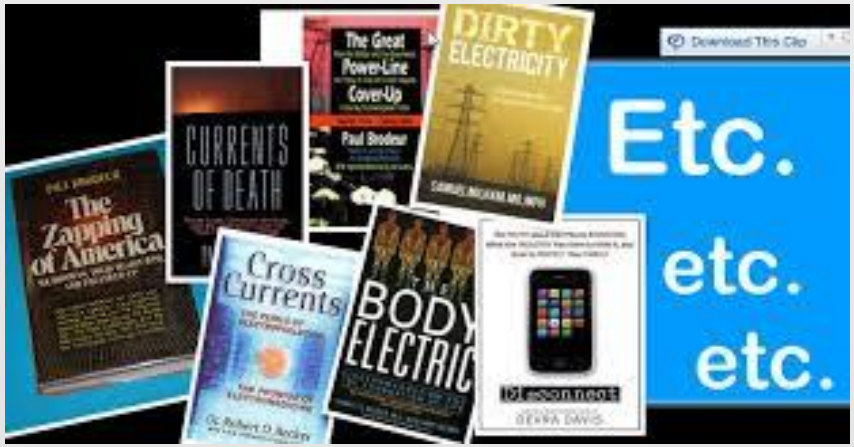
This is what is in our hearts and our minds

Statnett

But this is what comes out of our mouths

Statnett

This is what people hear



Statnett

And this is their "feedback"

Statnett

What our stakeholders told us

- The premises for the dialogue
- Quality vs. quantity
- Phases of the project vs. the totality
- Climate and the environment
- "Invite us"

Statnett

5 principles our leaders agreed upon:

- All relevant reports, analyses etc. shall be public
- Stakeholders shall be invited in from the very early stages of a project
- An active dialogue is in itself a main target for Statnett's communications
- The language must be understood by the readers
- All communication shall be based upon the factual evaluations that form the basis of the analyses

Statnett

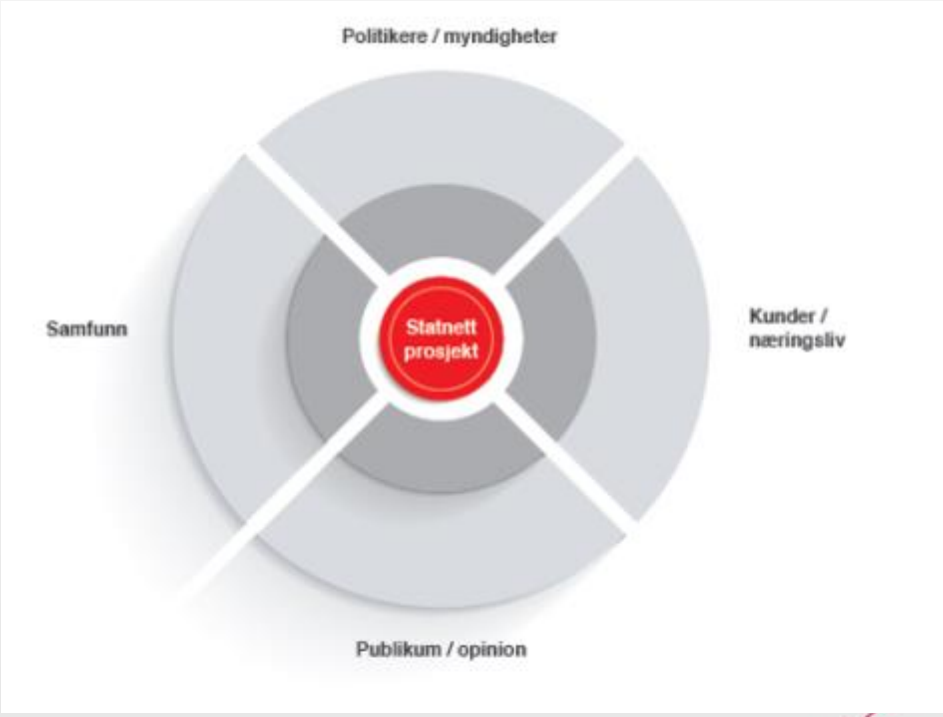
Viewpoints from our employees:

- Statnett employees are positive to more openness, and want to challenge earlier routines
  - Open
  - Planned external communication
  - Handle knowledge gaps

Statnett

A new tool:
Communications handbook for the early phases

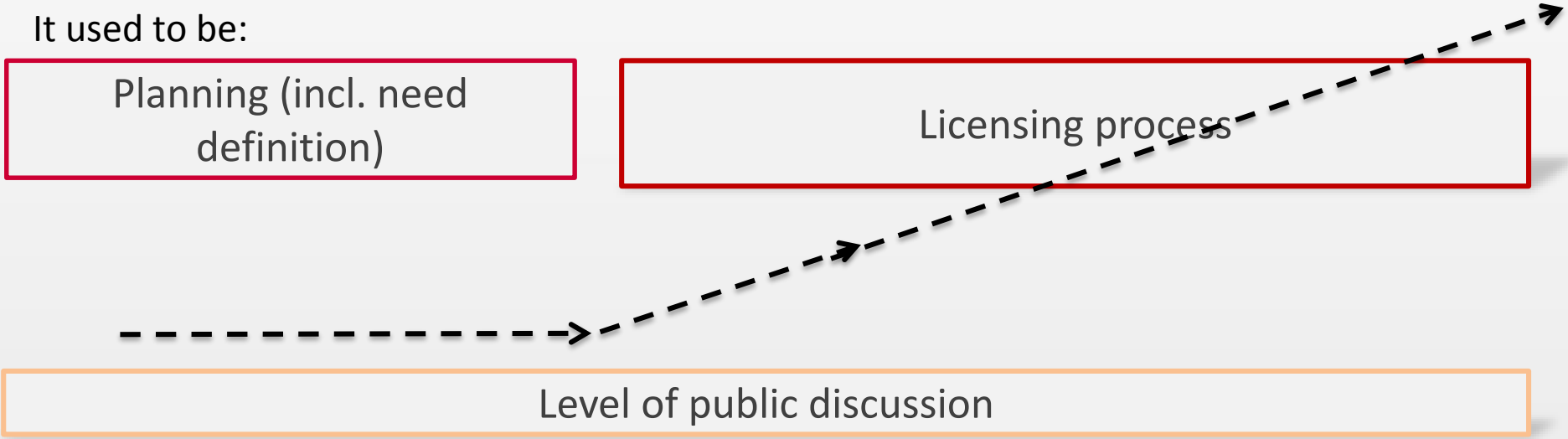
- The 5 principles and Statnett's strategic stories
- Stakeholder Management
- Check lists: What to do when
- Tools and resources
- Links/other relevant Statnett documents



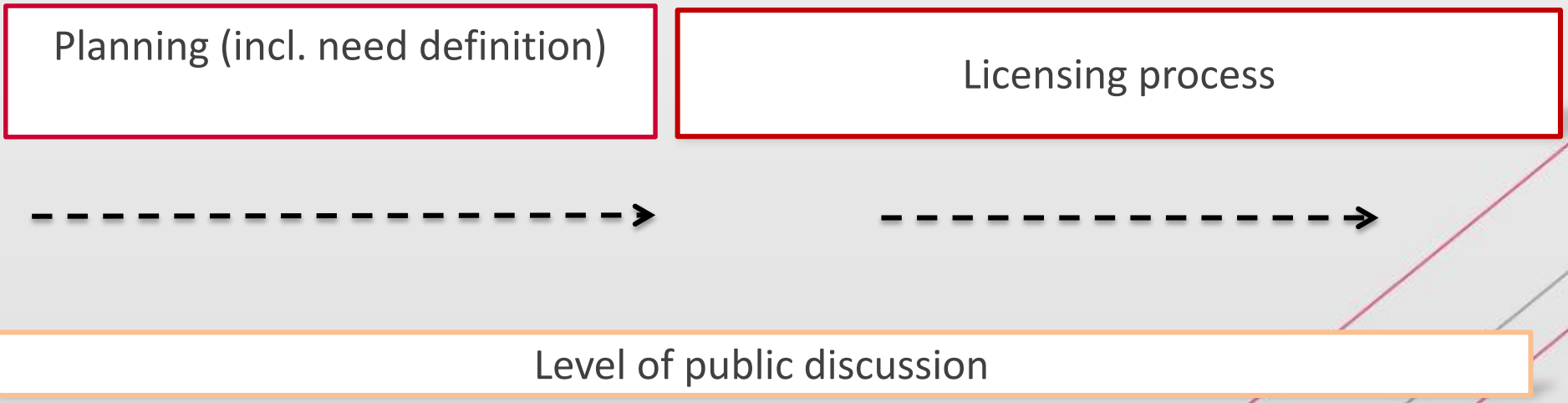
Statnett

And: A new licensing process

It used to be:



And is now:

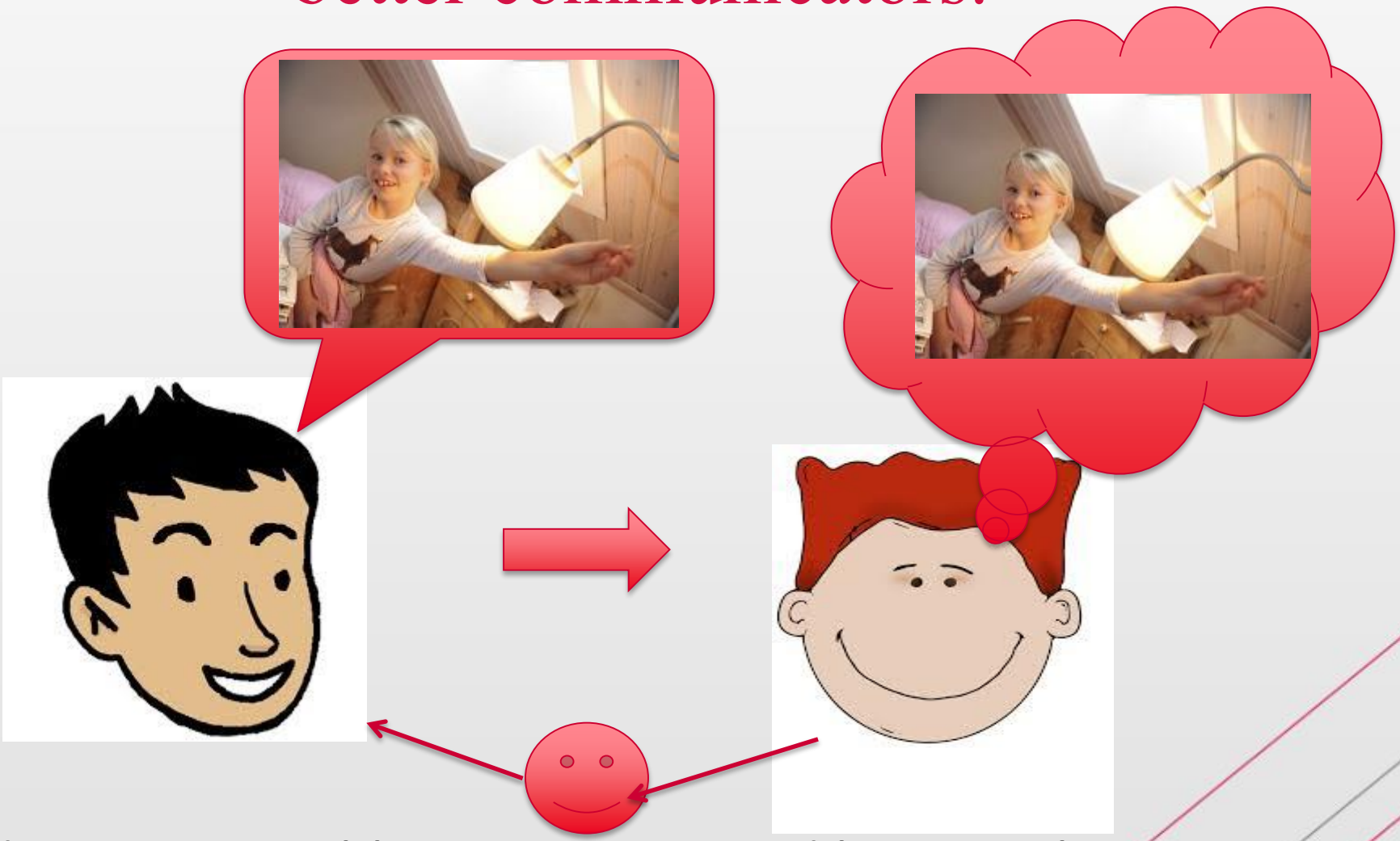


Arenas for learning

- SusGrid (R&D project)
- Inspire Grid (R&D project)
- RGI (Renewables Grid Initiative)
- Surveys
- Experiences

Statnett

And, hopefully, we will eventually become better communicators:



And even gain public acceptance and better solutions

Statnett

Norwegian Trekking Association Viewpoint and perspectives: Grid infrastructure development and public participation

Naturopplevelser for livet

Photo: Kiellandbu, Lokjesdalsnuten, Hardanger, Bergen og Hordaland Turlag

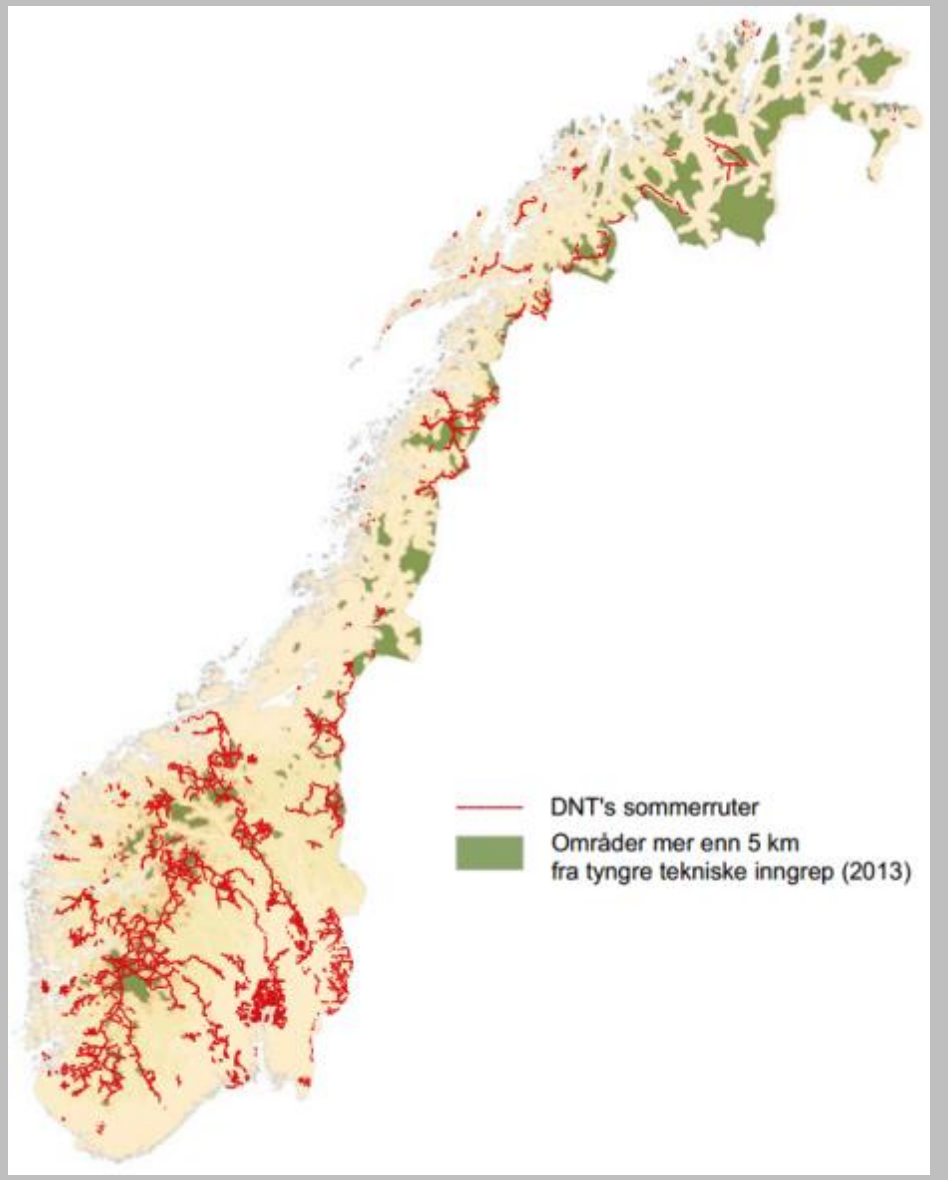
Den Norske Turistforening

Norwegian Trekking Association

- Founded in 1868
- Members: 258 000
- Regional and local trekking associations: 57

- 20 000 km of marked trails (**T**)
- 5000 km of marked ski tracks
- 500 tourist cabins
- Volunteer contribution:

560 000 work hours (2013)



Grid infrastructure planning in Norway and public participation

1. Traditionally electrical grid infrastructure development has been performed according to specific sector laws. The Energy Act (Act of 29 June 1990 No. 50) gives the energy authorities a wide discretionary space

2. Planning- and Building Act (Act of 27 June 2008 No. 71). Most important act to regulate and control how area is managed through physical planning.

3. Revision of the Planning- and Building Act in 2008: Energy infrastructure is not part of the act. Only Chapter 2 on mapping requirements and Chapter 14 on impact assessments are valid for energy infrastructure projects.

NGOs can participate in:

a) Licensing processes in connection with grid infrastructure projects.
b) Energy planning in connection with the stem net, regional net and (local net)

c) A third and new element 2014: Ten Year Network Development Plan (TYNDP) according to the European Network of Transmission System Operators for Electricity (ENTSO-E).

Challenges

1. Energy Act contains few specific requirements. Energy authorities have a wide discretionary space
2. Guidelines on grid planning affirmed by the national assembly set requirements for what kind of grid solutions that are preferred
3. Need to strenghten the ties between Plan- and Building Act and the Energy Act.
4. For the first time Statnett will arrange a public hearing of the national grid development plan in March 2015. They must communicate what type of involvement they envision, and how they intend to use the information gathered through public participation processes at national and regional level.
5. Local energy planning terminated in 2014. Local energy planning must be restored

Landscape, biodiversity and recreational values

Opportunities

1. Increase the capacity of NGOs within recreational interests and nature conservation.
2. Knowledge: Energy authorities and energy sector contribute to the work with creating a national landscape strategy in accordance with the European Landscape Convention.
3. Mapping: Take the opportunity to increase national mapping of recreational, landscape, biodiversity and cultural values. This work would benefit both public intersests and industrial interests.
4. Secure methods for estimating environmental costs, nature and landscape values (e.g. methods implementing ecosystem services).
5. Guidelines for public participation in Energy planning and for the licensing processes.
6. The new national grid development plan 2015 need to includede a separate chapter with guidelines on how Statnett intends to secure public participation, and how important recreational, landscape, biodiversity values will be respected.
7. A separate chapter on energy conservation

European perspectives on grid development

1. New renewable energy construction and closer integration to the EU energy market are important drivers for new grid development.
2. We have concerns regarding the way the directive is practiced in Norway with respect to landscape, biodiversity and recreational values.
3. Market concerns: Some of the larger industry actors, like Statkraft, claim that green certificates undermine the energy prices and climate quota system.
4. Regional concerns: Rogaland county - a county with a majority of new licenses for new wind power plants - says no to further wind power development before 2020. They allready fulfilled their wind power quota.
5. The role of new renewable energy production in Norway has been questioned, NOU 2013:10: "green certificates must be evaluated. The impacts due to the green certificates on ecosystems and ecosystem services must be identified. The effect of new norwegian renewable energy production and contribution to European energy consumption and climate gas reduction must be mapped".


40

Naturopplevelser for livet

Den Norske Turistforening

Research highlights from the SusGrid research project

Speakers (part 1)

1. Øystein Aas, Norwegian Institute for Nature Research
   International comparisons in public attitudes
2. Tooraj Jamasb, University of Durham:
   Economic incentives and benefits

Public beliefs about electricity grids and hV powerlines

Results from a cross-national survey in Norway, Sweden and the United Kingdom

Paper presented at SusGrid seminar, Friends House, London, November 2014

Øystein Aas, Susana Batel, Torvald Tangeland and Patrick Devine-Wright

SUSGRID, Cross-national research project funded by the Norwegian Research Council

Research Partners: SINTEF (N), NINA (N), University of Exeter (UK), Durham University (UK), Stockholm Environmental Institute (S)

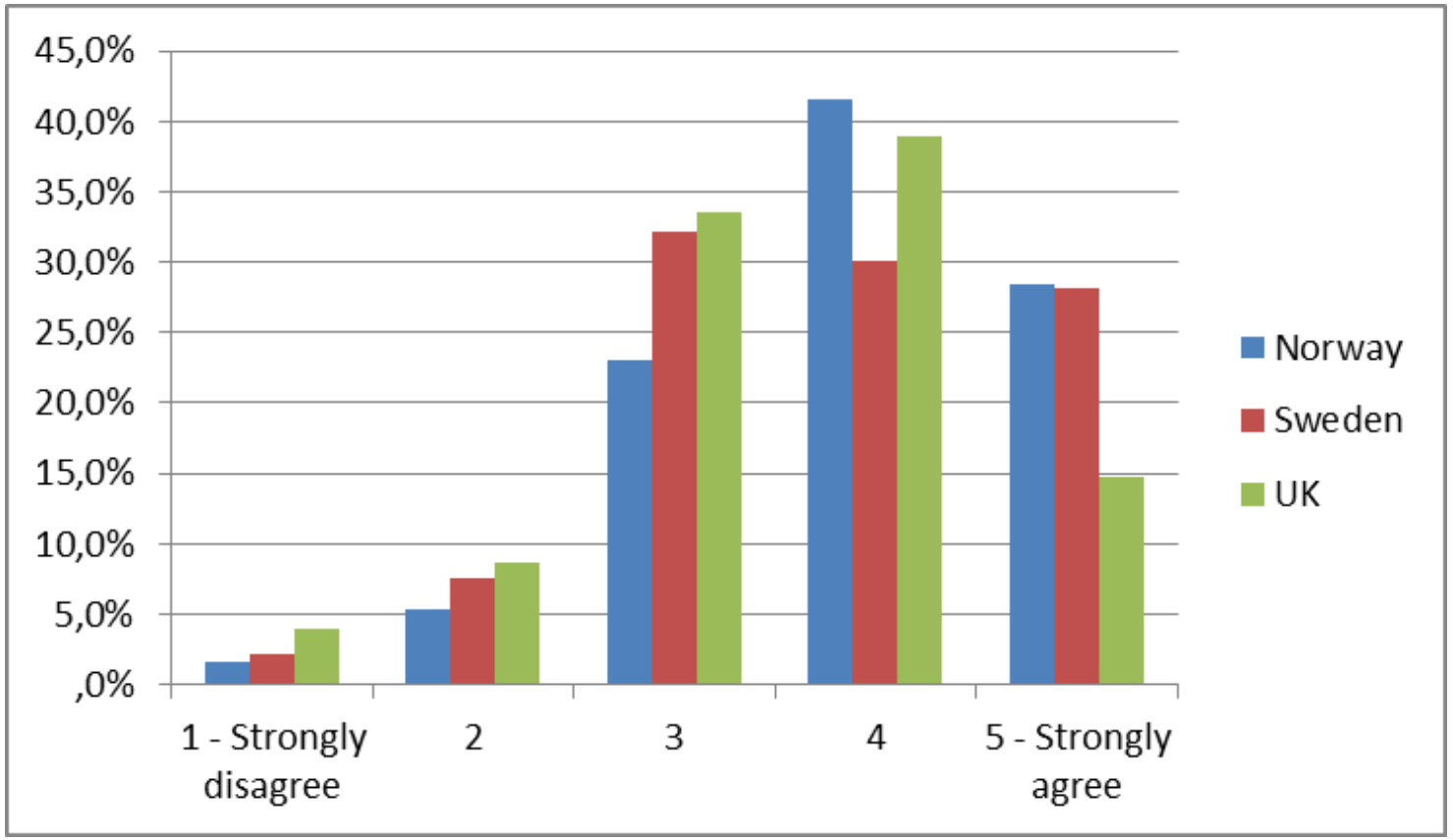
Background and purpose

- ***Significant opposition against hV transmission lines in several countries***
- ***What position takes the general public?***
- ***What is their beliefs, attitudes and familiarity with hV powerlines and the associated organisations?***
- ***What similarities and differences can be identified between the three countries?***
- ***A basis for national policy (voters!) as well as local processes***

Methods

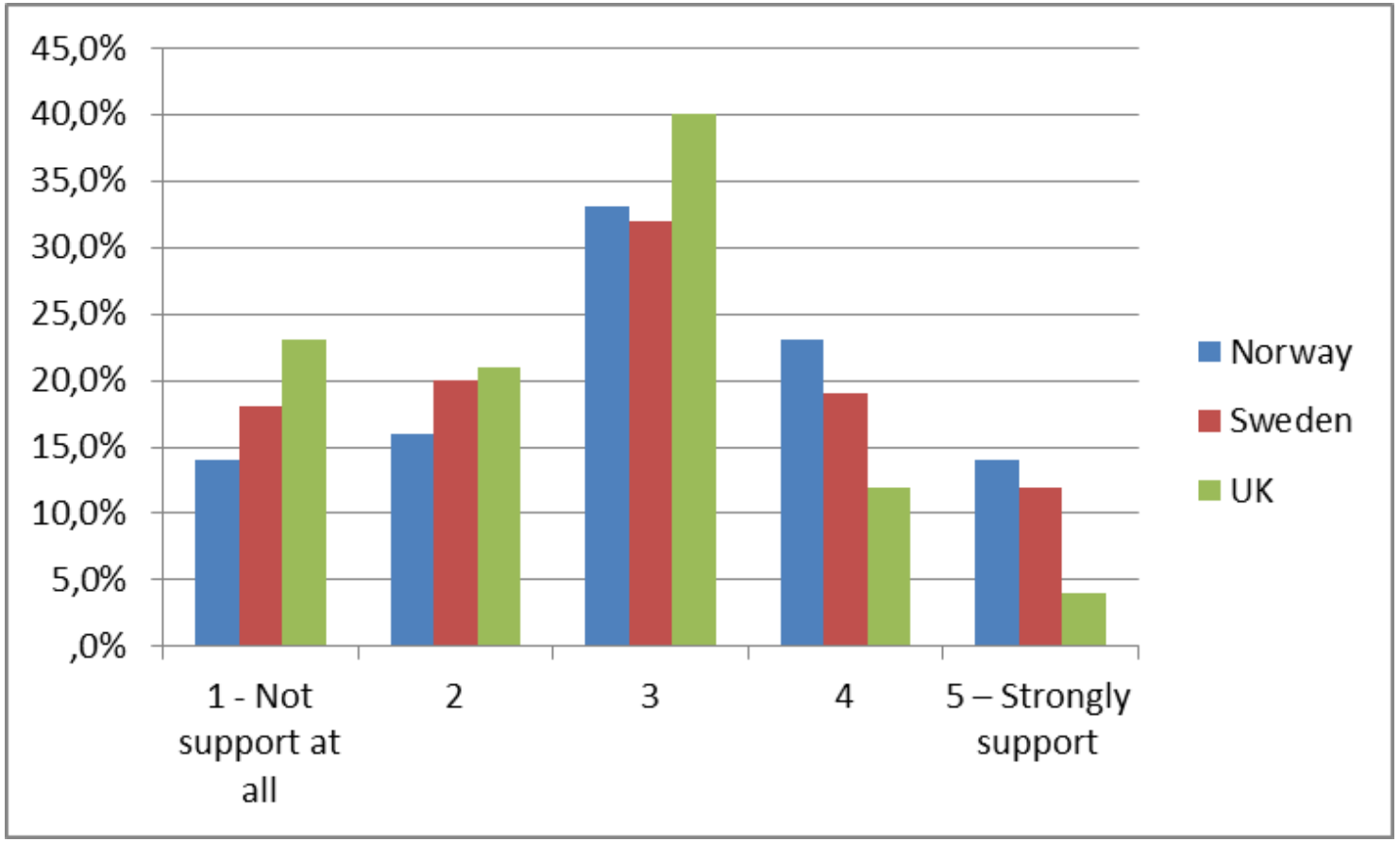
- Internet Panel survey
- Well-run panels owned by serious polling companies
- Representative samples of people 18 years and older in each country
- Pretest: 45 (Norway)
- Sample: 5107
  - Norway: 1972
  - Sweden: 1616
  - UK: 1519
- Survey conducted Nov 2011-March 2012
- Sufficiently suitable for a cross-national comparison

“In general, I accept overhead powerlines”



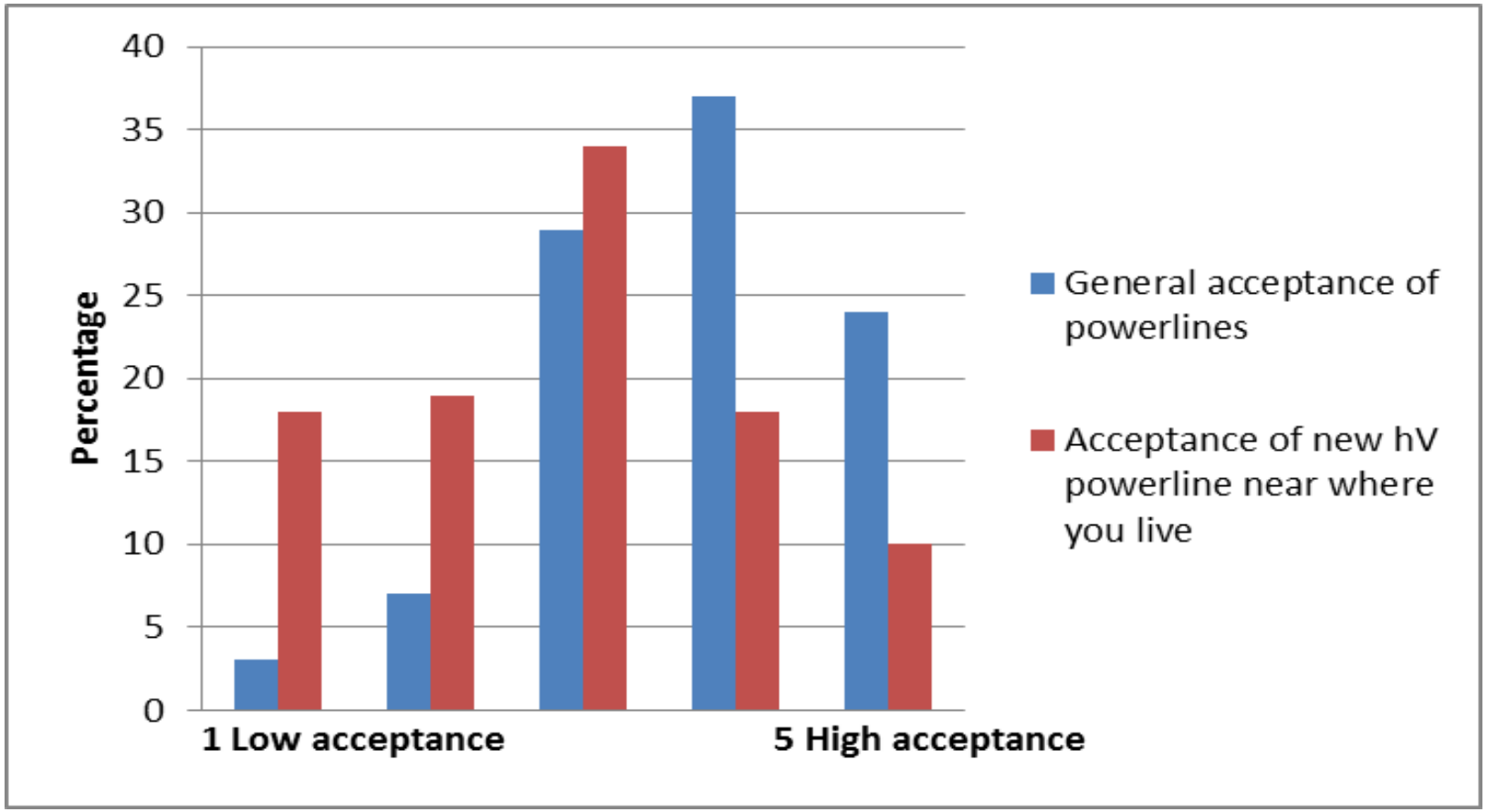
Means comparison: F=49.36; p<0.000; UK<S, N

"To what extent would you accept the construction of a new high-voltage power line near your community (for example, within 3 miles/ 5 km)?"



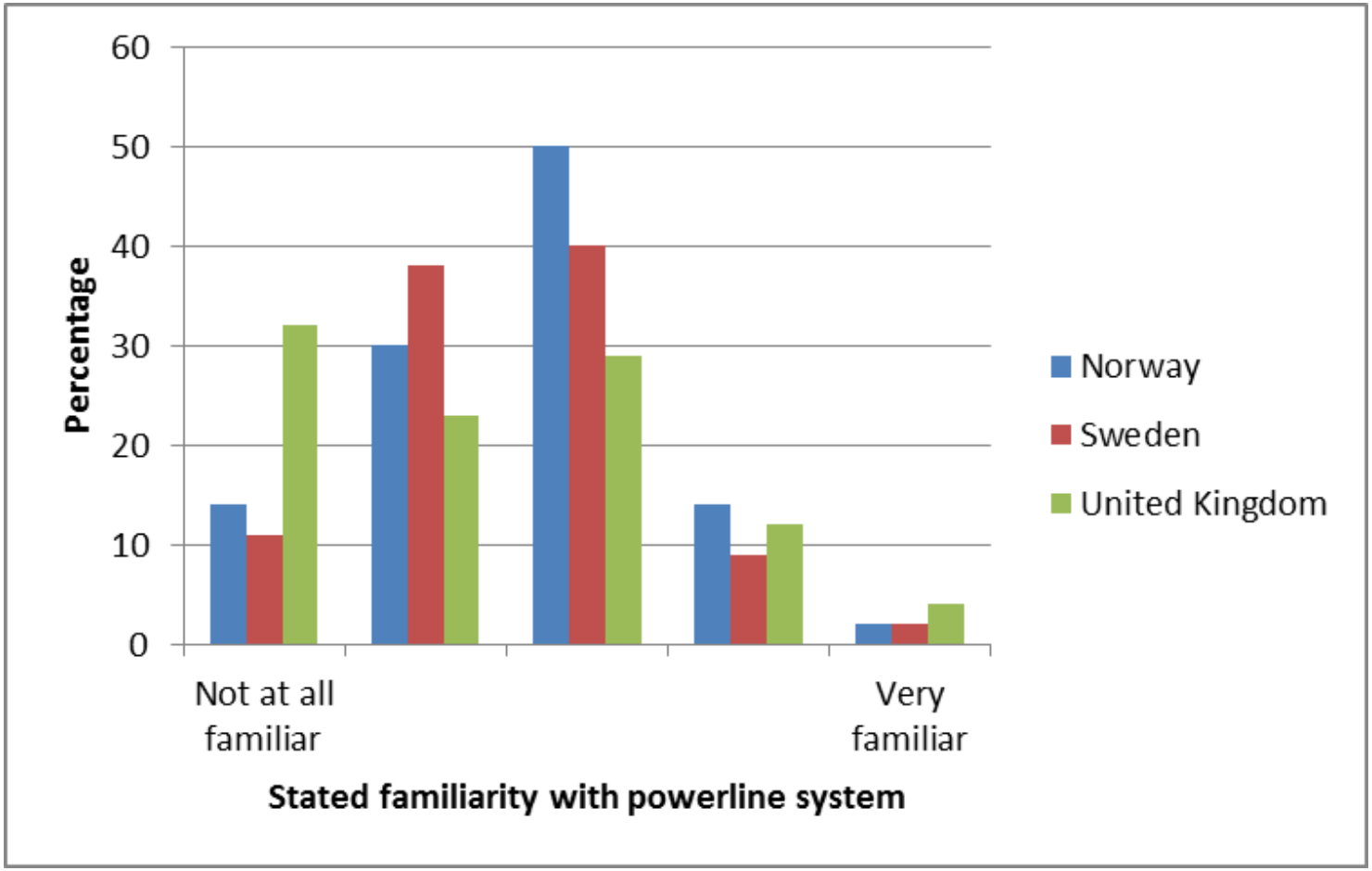
Means comparison: F=57.51; p<0.000; UK<S,N

General versus local acceptance*



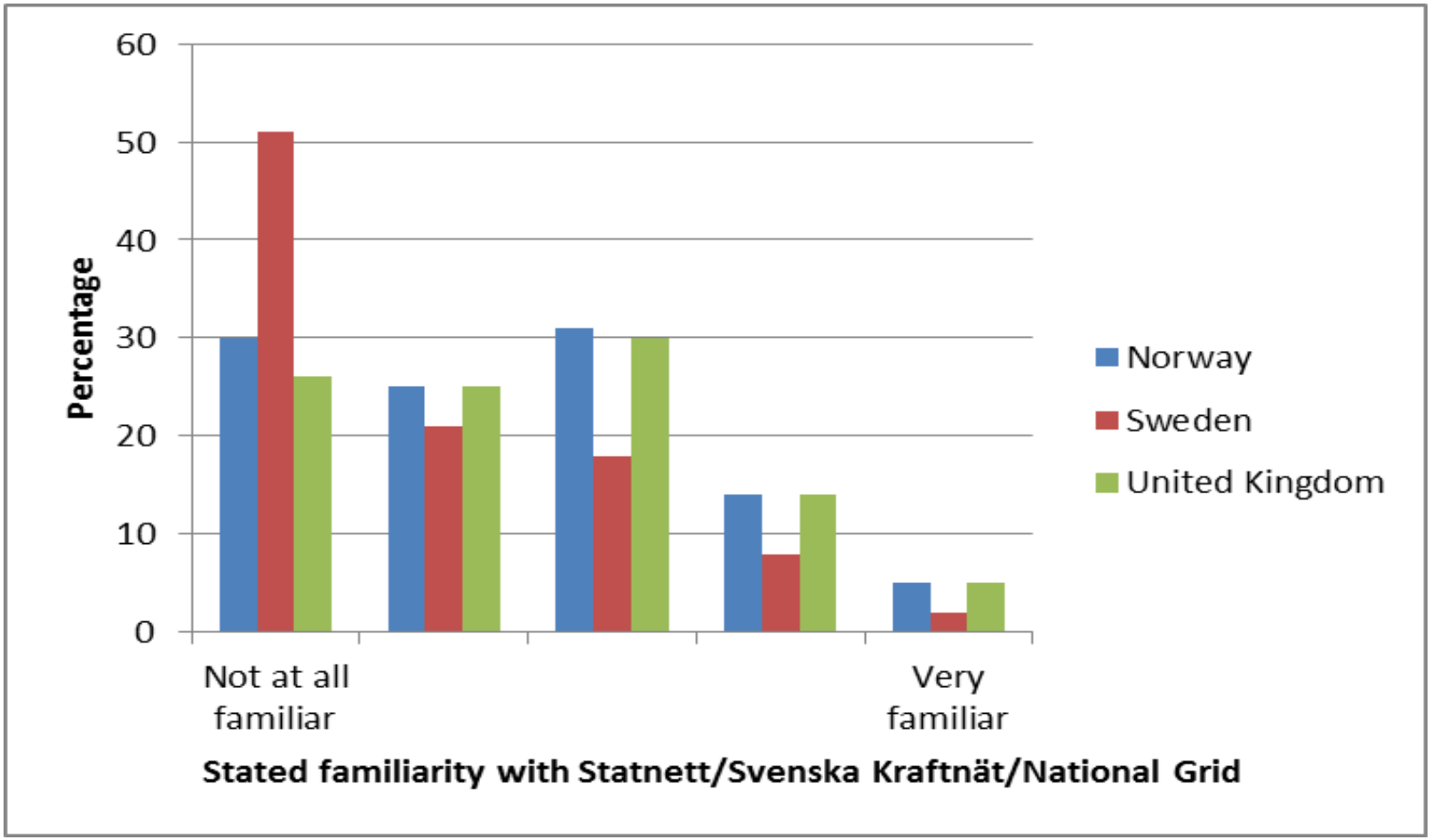
*Whole sample

Familiarity with powerline systems



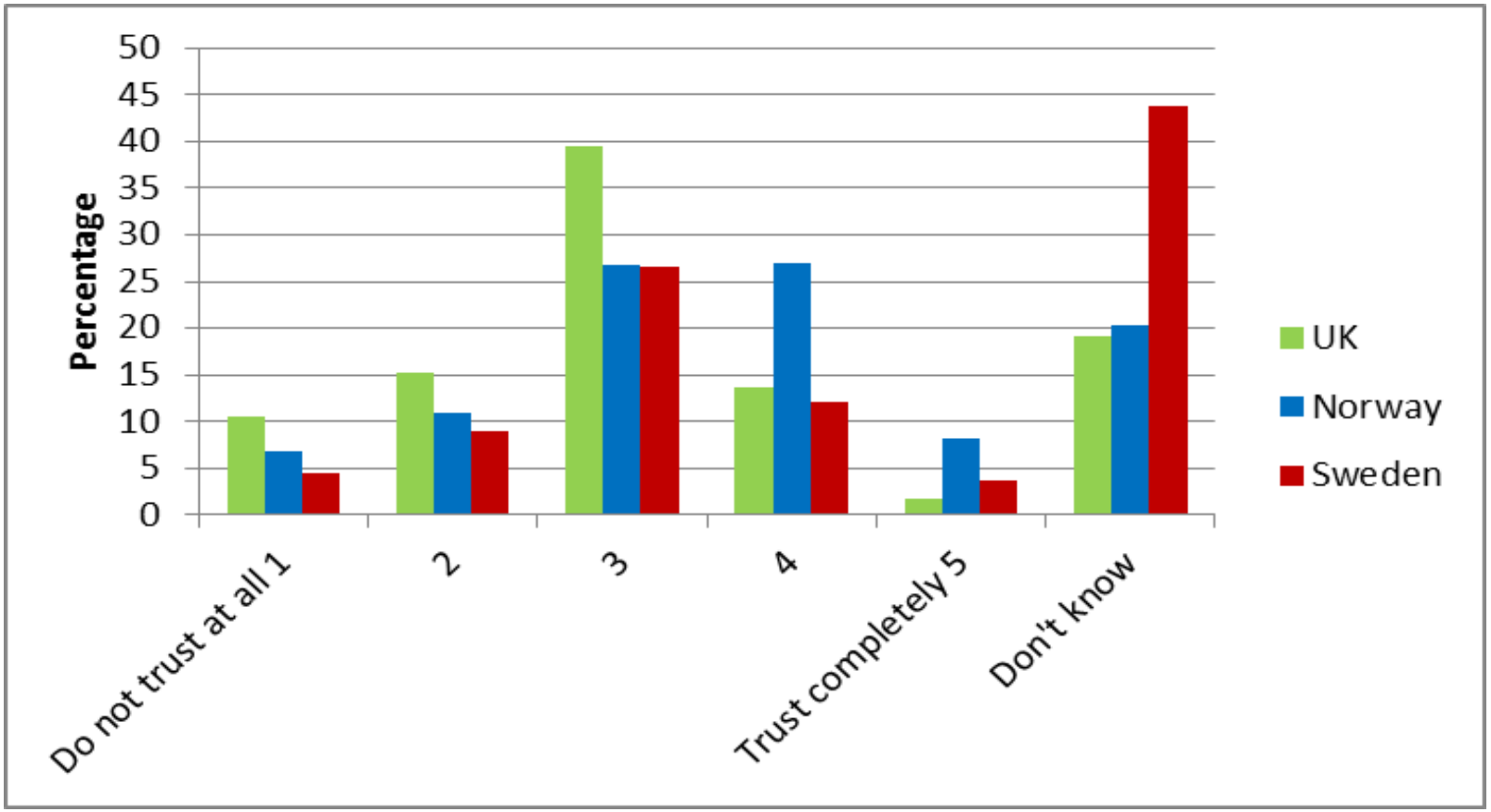
Means comparison: F=86.76; p<0.000; UK<S<N

Perceived familiarity with TSOs



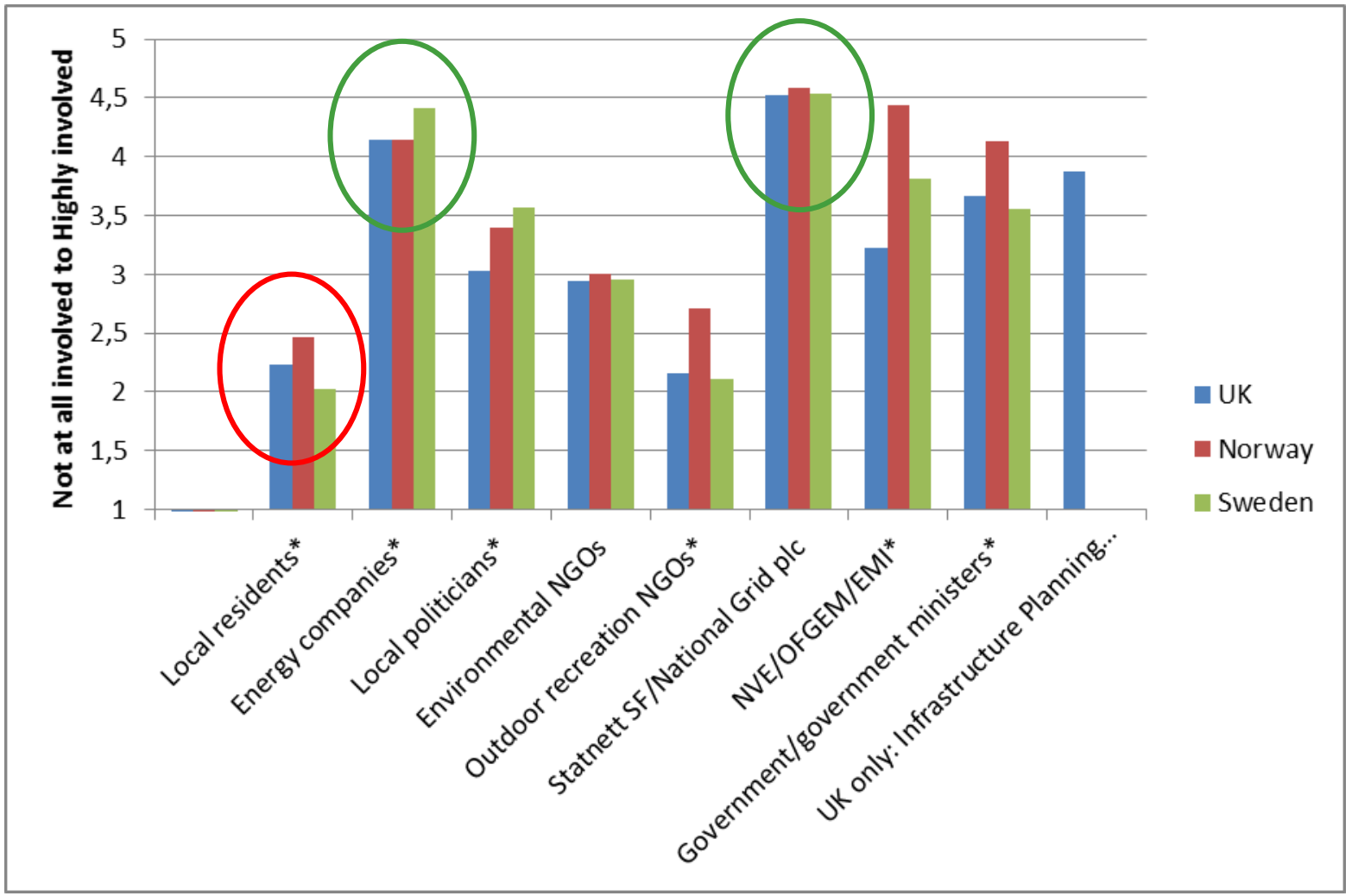
Means comparison: F=136.45; p<0.000; S<UK<N

Trust in TSOs



Means comparison: F=66.12, p< 0.000; UK<S<N

Beliefs about involvement in decisions about hV transmission grids



Key findings

- In general, the publics accept hV powerlines, but they are less supportive of them
- All publics are more negative to a hV powerline near where they live
- UK respondents are significantly more negative than Norwegians and Swedes
- Respondents report limited familiarity with power lines and their organisations, especially re the TSO in Sweden
- Trust in TSOs are low in UK, higher in Norway, dominated by «don’t know» in Sweden

Discussion

- Country differences: differences in governance history and/or general level of land use conflicts including landscape representation
- Confirms the divide between general and specific (local) attitudes
- Study reveals significant challenges for grid companies and energy authorities in all three countries to better involve and communicate with the publics

Durham University
Business School

Sustainable Grid Development and the Public:

An Economic Approach

Wenche Tobiasson and Tooraj Jamasb

Durham University Business School

tooraj.jamasb@durham.ac.uk

London
24 November 2014

AACSB ACCREDITED · Accredited by Association of MBAs · EQUIS ACCREDITED

Background

- A timely development of national infrastructures a prerequisite for economic growth and generally associated with significant economic and social returns.
  - Airports, prisons, energy generation, railways, electricity transportation etc.
- However, such undertakings are often subject to opposition from affected communities,
  - Causing lengthy and costly delays.

Grid Development and the Public

- Conflicts on the rise in various countries.
- But, why do these conflicts arise?
  - The industry
  - The Society
- Current frameworks unsuitable to incorporate all stakeholders views,
  - hence the need for a new grid development paradigm.

Economic approach to foster local acceptance

- Economic characteristics of transmission developments:
  - Externalities
  - Common pool resource
  - Many stakeholders
  - Information asymmetry
  - Natural monopoly, large sunk costs

- From an economic incentive point of view, local opposition to grid project as result of:
  - Uneven distribution of costs and benefits.

Redistribute costs and benefits

- Remedies from wind and other single location facilities, financial compensation and benefit-sharing
  - One off payments
  - Annual payments
  - Part-ownership
  - Community benefit scheme

- Differences in grid vs. wind developments
  - Geographical stretch
  - Number of stakeholders
  - Regulated industry
  - Cost and benefits difficult to quantify

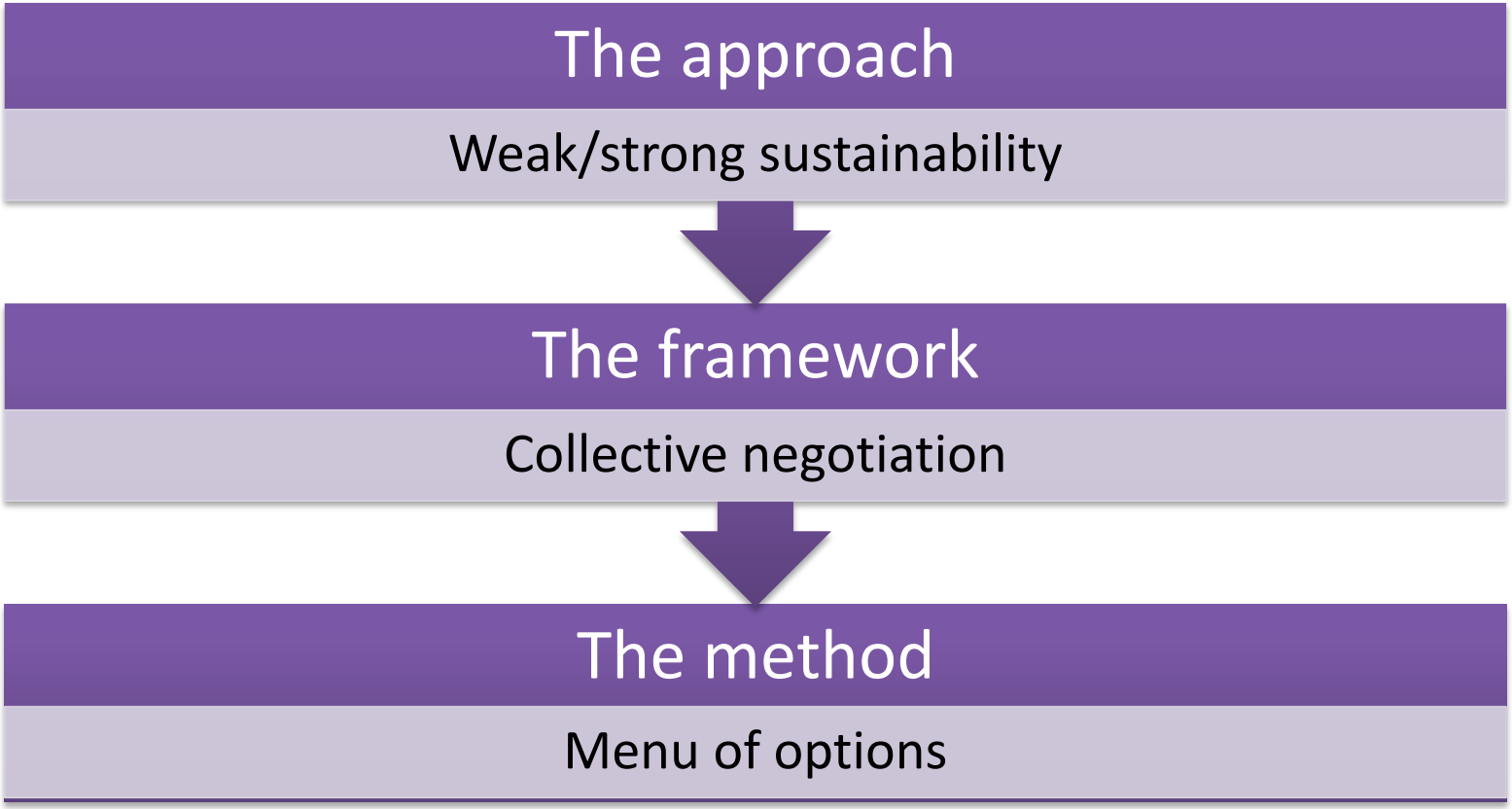
Issues with financial compensation

- Implicit views communities as economic agents

- Willingness-to-accept implies property rights
- Who has the property right?

- Compensation perceived as bribe

An Economic-Sustainability Approach



Weak/strong sustainability

- **Strong sustainability** -> the total value of natural asset maintained – i.e. an equivalent value of environmental asset is created from project benefits to compensate for environmental impact.

- **Weak sustainability** -> Physical / financial / social capital of same value can be created from benefits of the project.

- The wider society will decide on relative weakness/strength of transformation and level of 'local environmental compensation'

Collective negotiations

- Negotiated settlements proven to limit regulatory workload, decrease delays and increase efficiency.
- Identify specific needs and opinions.
- Utilise local knowledge

- Decrease transaction costs and information asymmetry
- Two-way discussions tend to increase public support.

Should produce more economically efficient outcome and social welfare

Menu of options

- Established concepts in regulatory economics

- Communities choose between set of options of similar cost, but may gain higher utilities from some of the options

- Reduce the effect of uncertainty and information asymmetry
- Reduce transaction costs

Should produce EVEN more economically efficient outcome and social welfare

Conclusion

The propose approach:

- Implies that the local environment, not the community, is entitled to compensation.
- Appeal to the ‘citizenship’ as oppose to ‘economic’ identity of the communities.
- Increases sustainability, economic efficiency, and social welfare

Research highlights from the SusGrid research project

Speakers (part 11)

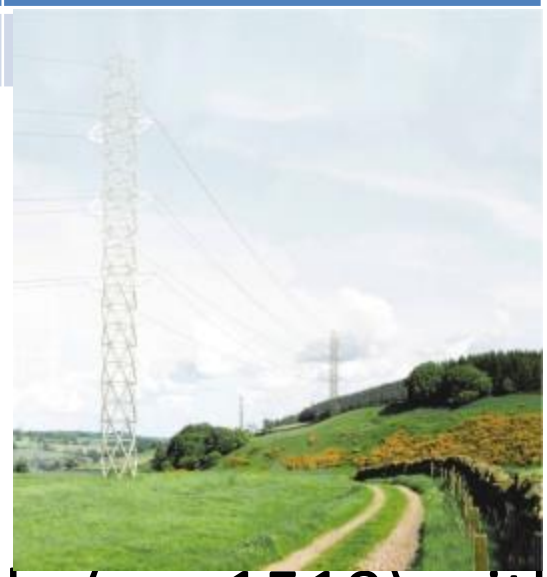
1. Patrick Devine-Wright and Susana Batel, University of Exeter:
   Landscapes, power lines, and public acceptance
2. Marte Qvenild, SINTEF Energy Research:
   The challenges of public participation

Landscape impacts, mitigation and public acceptance

I. Alternative pylon designs
II. Place approach for examining local communities' responses
III. Landscape (de-)essentialisation

I. Pylon Design Options

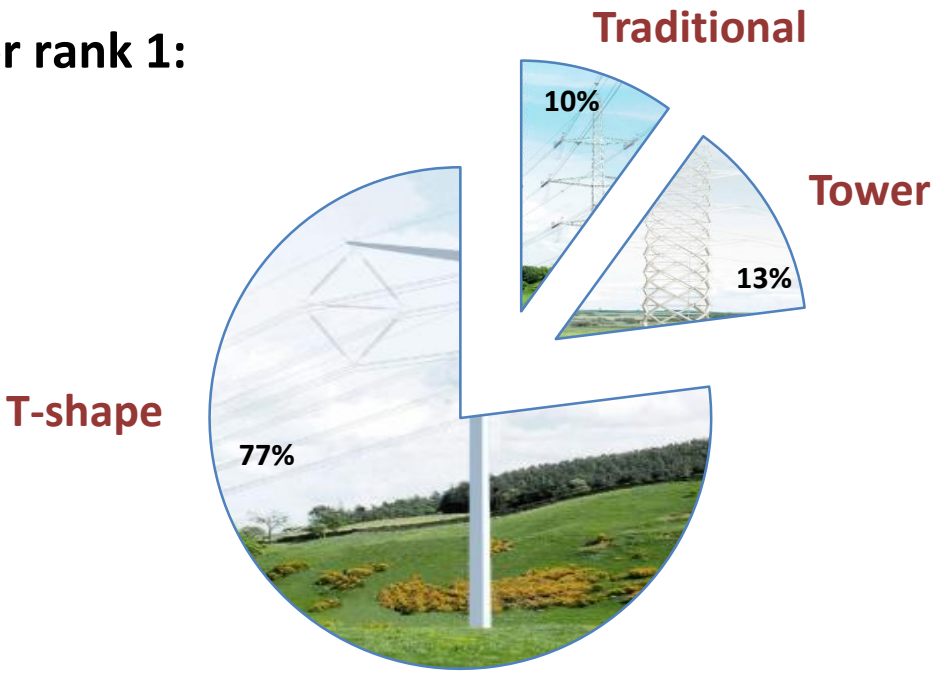
- UK design competition: Royal Institute for British Architects, 2011

Current design: 'Traditional' (since 1920s)	Winning design: T-shape (by Bystrup)	Shortlisted design: Tower (by New Town Studio Structure Workshop)
		

- Nationally representative sample (n = 1519) with data collected in January 2012

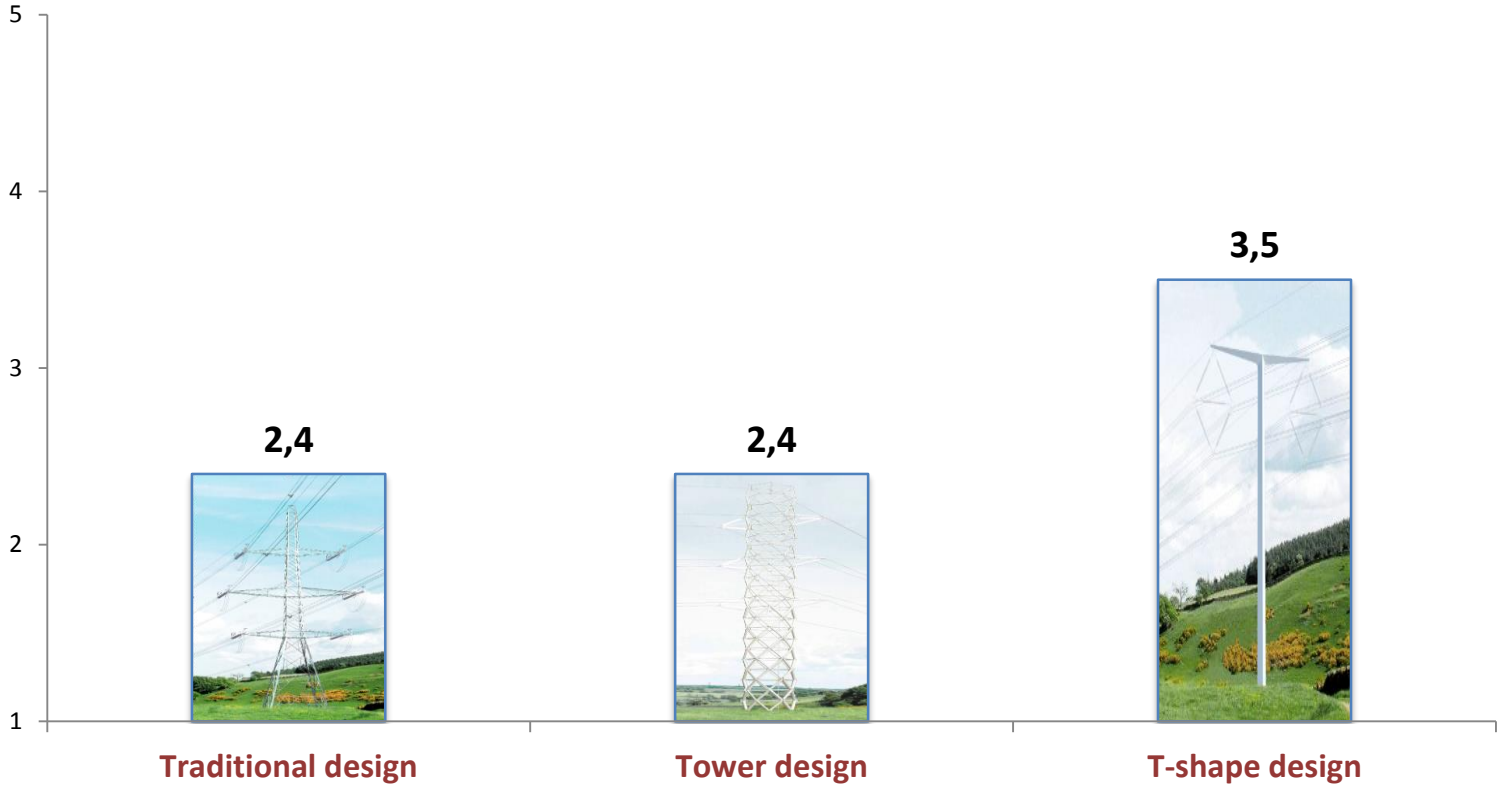
I. Public preferences for design options

Results for rank 1:



The T-shape design was the most preferred by UK adults. There were no significant differences between the other two designs.

I. Perception that a pylon ‘fits well’ in a rural landscape



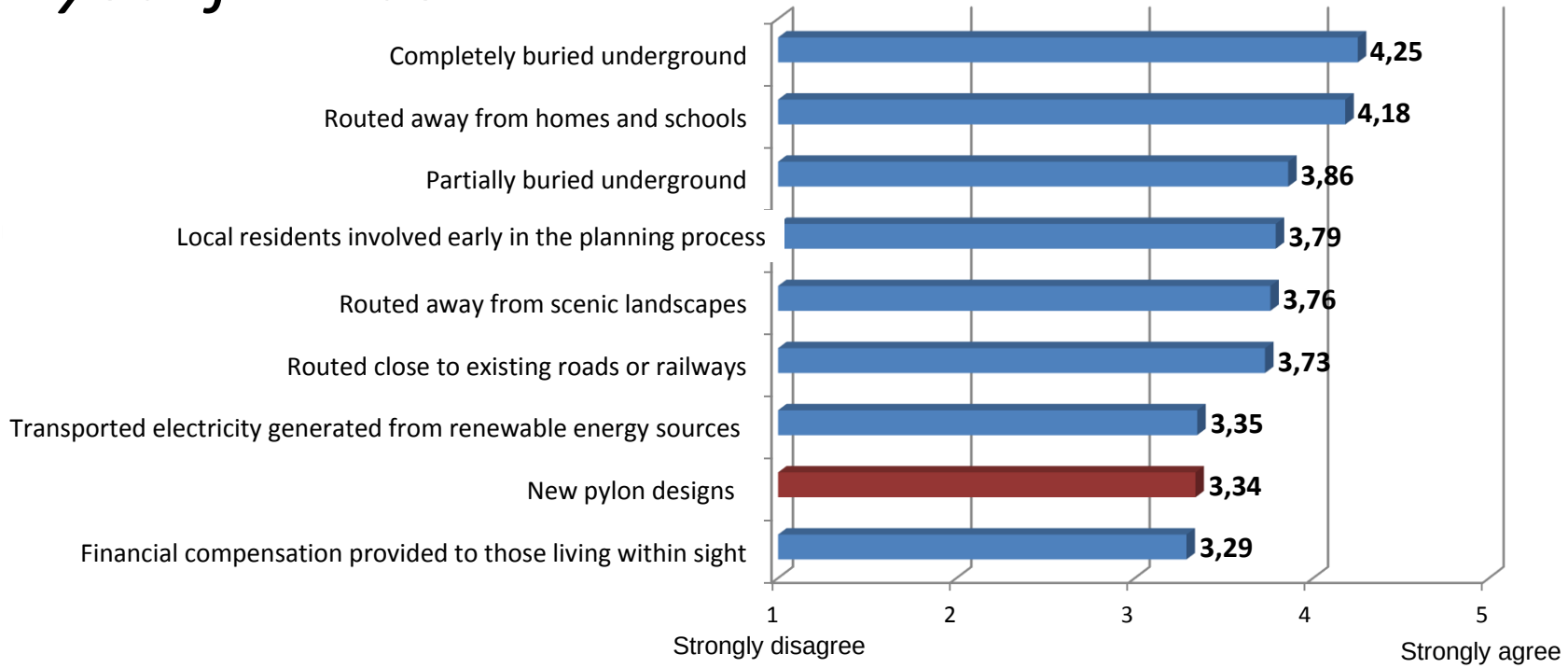
The T-shape design was perceived to fit significantly better than the other designs

I. Explaining why …..

- Multiple regression analyses for each pylon design for landscape ‘fit’
- Key factors explaining fit across all designs:
  - Educational attainment (-)
  - Trust in National Grid (+)
  - General attitudes towards power lines (+)
- But also some diversity:
  - T pylon: negative local impacts important (-) (e.g. reduce landscape quality)
  - Traditional design: attitude towards a local power line important (+)

I. Mitigation preferences

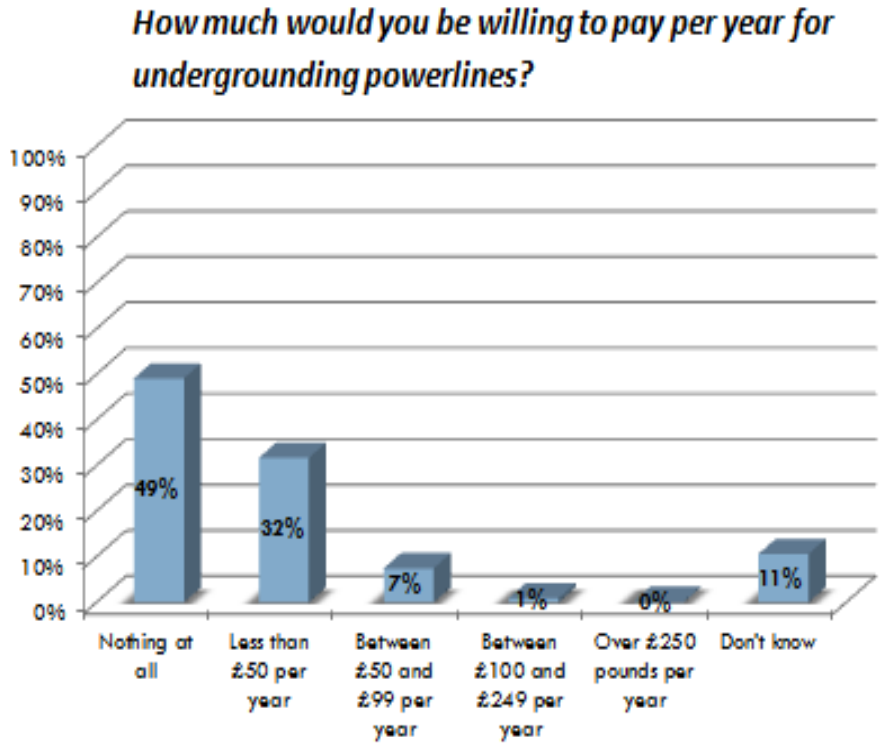
- *If a new power line was proposed in the area where you live, would it be more acceptable to you if it was …?*

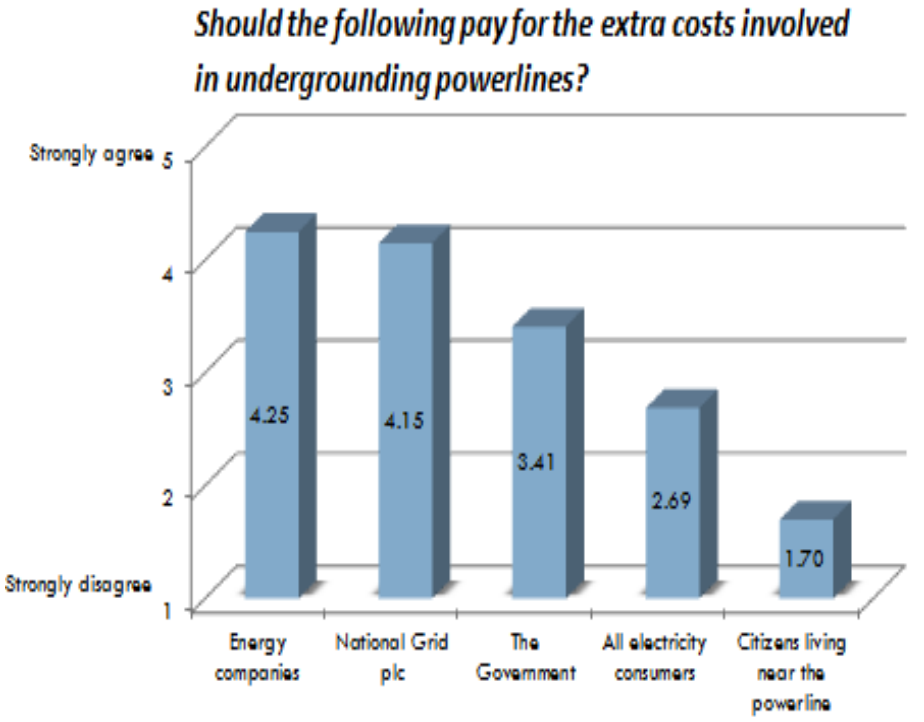


Completely burying lines underground is the most supported mitigation measure; new pylon designs is one of the least supported **!**

I. Willingness to pay for undergrounding

- **40%** of participants say they **would be willing to pay more for undergrounding** new powerlines, mostly less than £50 per year.
- **Extra costs should be spread across several actors**, not just citizens living near the powerlines or all electricity consumers.





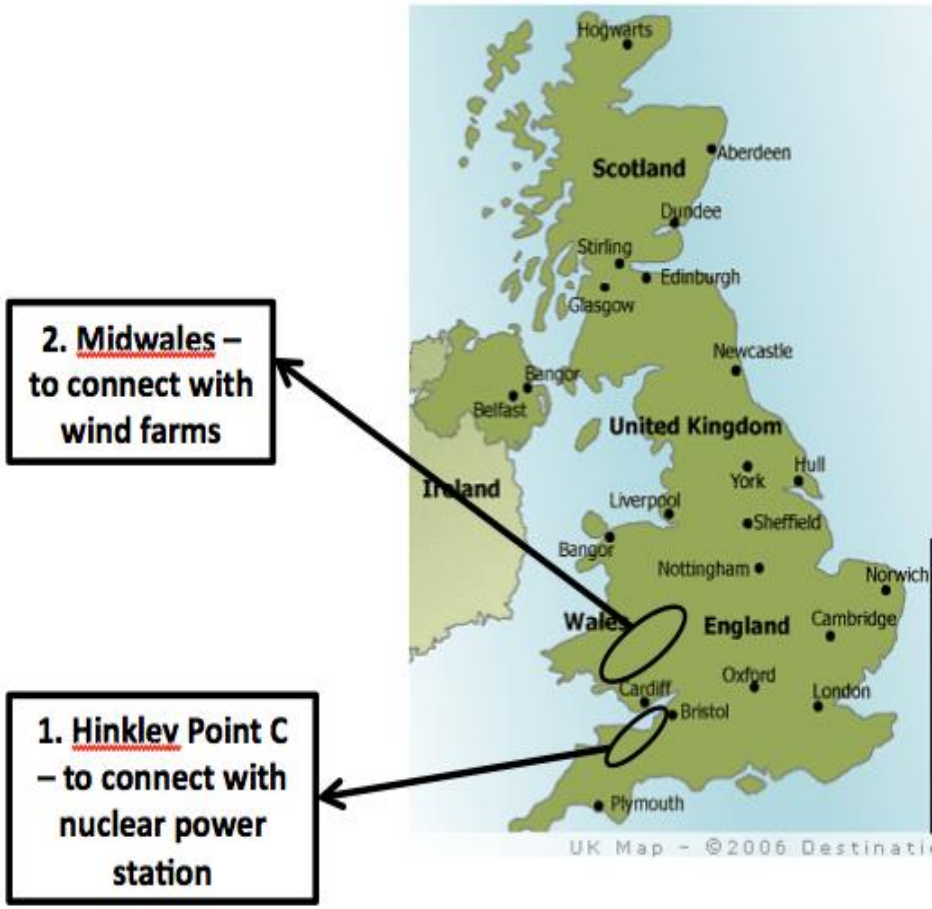
II. The importance of a place-based approach

- Shortcoming of research on people's responses to HVPLs and other energy infrastructures:
  - Use of a siting approach to explore local communities' responses, instead of a place-based approach
  - Analyses tend to look at how people living **around** a given project (physical proximity) tend to perceive it, without taking into account the **places or settlements** where they live, and the relations they have with them

Batel & Devine-Wright (2014), *Journal of Environmental Planning and Management*

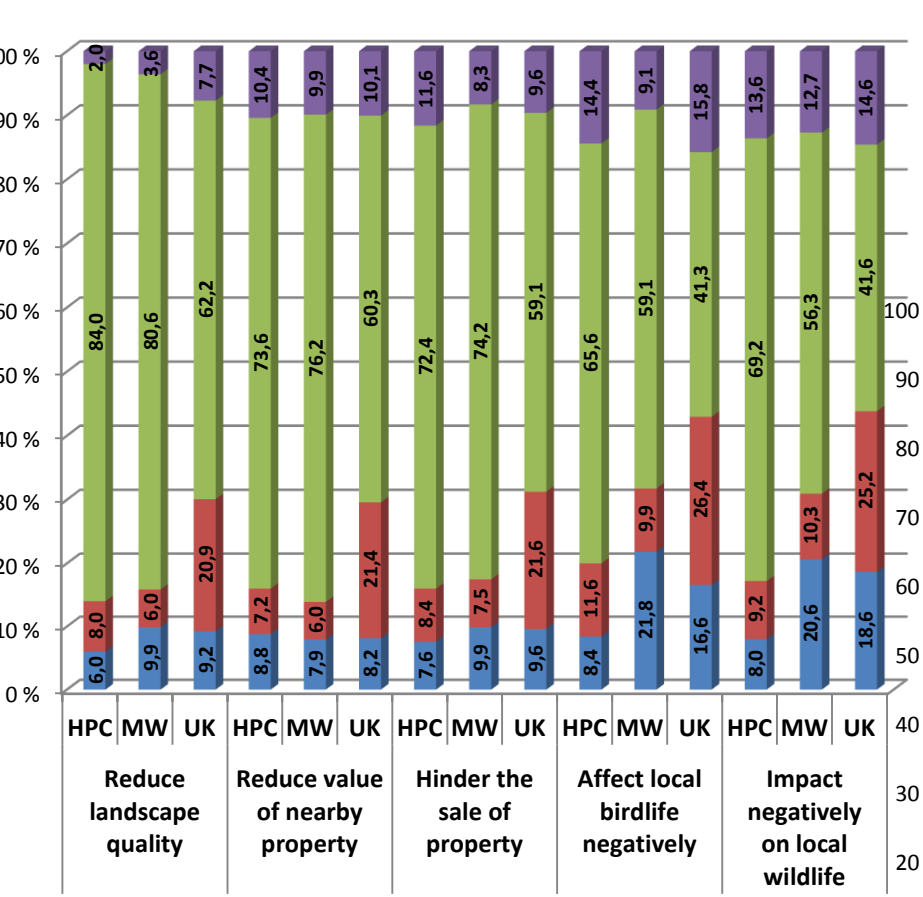
II. Participants, contexts of research and procedure

- Representative survey of **4** settlements (*N*=125 each) to be affected by the construction of two projects for the construction of HVPL's ➔
- Surveys included questions on attitudes towards HVPL's in general and local, perceived local impacts, beliefs about decision-making processes,...

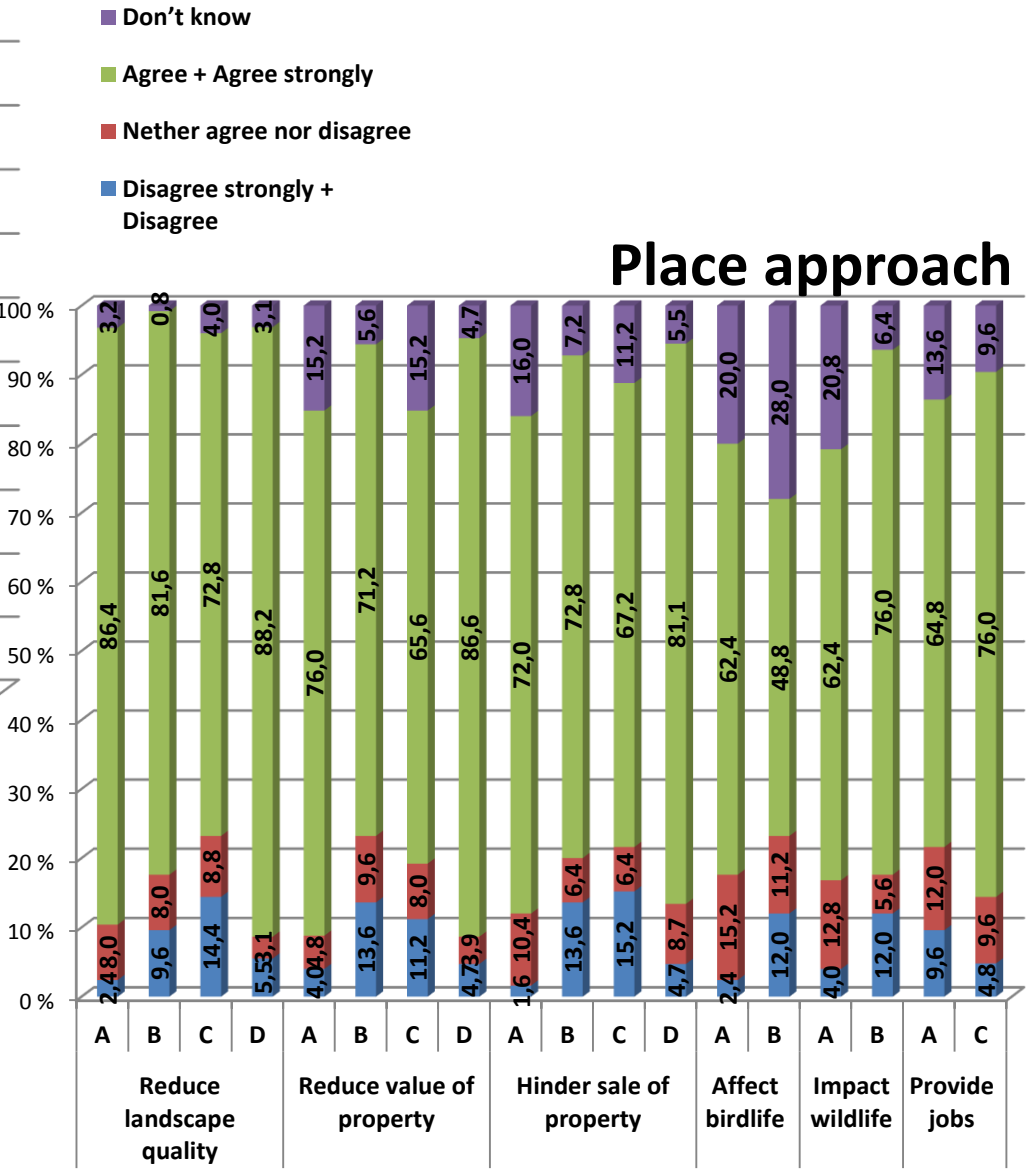


Batel & Devine-Wright (2014), *Journal of Environmental Planning and Management*

II. Main results



Siting approach



Place approach

Batel & Devine-Wright (2014), *Journal of Environmental Planning and Management*

II. Main conclusions and Discussion

- Both similarities and differences between the residents of the different places
- Shaped by the particular characteristics of each place and the way their residents relate with and represent them
- They would be overlooked if we had used only a siting approach, based on the aggregation of responses by case study or according to the spatial proxitimity to the project
- This place approach allows us to have more in-depth and context-sensitive information about people's beliefs regarding energy infrastructures

III. The role of the (de-)essentialisation of the countryside on responses to power lines

- Essentialisation – when people tend to attribute an essence to something or someone (*e.g.*, women) and see it as natural, as always having been there and thus as not being possible to mix up with other, different, essence

  (*e.g.*, power lines vs. countryside?)

- Participants, context and procedure:
  - Focus groups (*N*=15 – 8 in UK/7 in Norway) with members of local communities to be affected by HVPL's – the same case studies in the UK; Ørskog-Fardal & Sydvestlinken in Norway (4/3 FG's by case study; 3-8 participants in each FG)

III. Results:
Essentialisation and de-essentialisation

• Participants tend to essentialise the British/Norwegian countryside and (as opposed to) power lines	P1 - ***a pylon is a pylon is a pylon,*** *it's still* ***a scar on the landscape*** [Settlement D, UK] P2 - (…) *which* ***bear no resemblance to the countryside*** [Settlement E, UK]
• But participants also present the countryside in the place where they live as having more the essence of the British/Norwegian countryside than other areas ➔ Allows to legitimize claims that power lines are 'out of place' mainly in the place where they live	P5 – (…) ***it's just pretty flat open countryside*** P6 - ***Precisely yes which is fine isn't it*** P5- ***less um… obtrusive in that sort of landscape*** *than they potentially would* ***in our landscape*** [Settlement D, UK]

III. Results: Essentialisation fostered by institutional practices

• However, the essentialisation of the countryside vs. the industrial and developments in rural areas is a divide much fostered by institutional arrangements and at a policy level	P4 – (…) *Town and Country Planning Act* (…) *has been protection for the countryside, you could see this kind of urban sprawl that was going to be eating into our countryside and denied the nation of that where you could actually go to* (…) *it's a big national thing and this isn't just about us* (…) *about all of this countryside now* [Settlement D, UK]

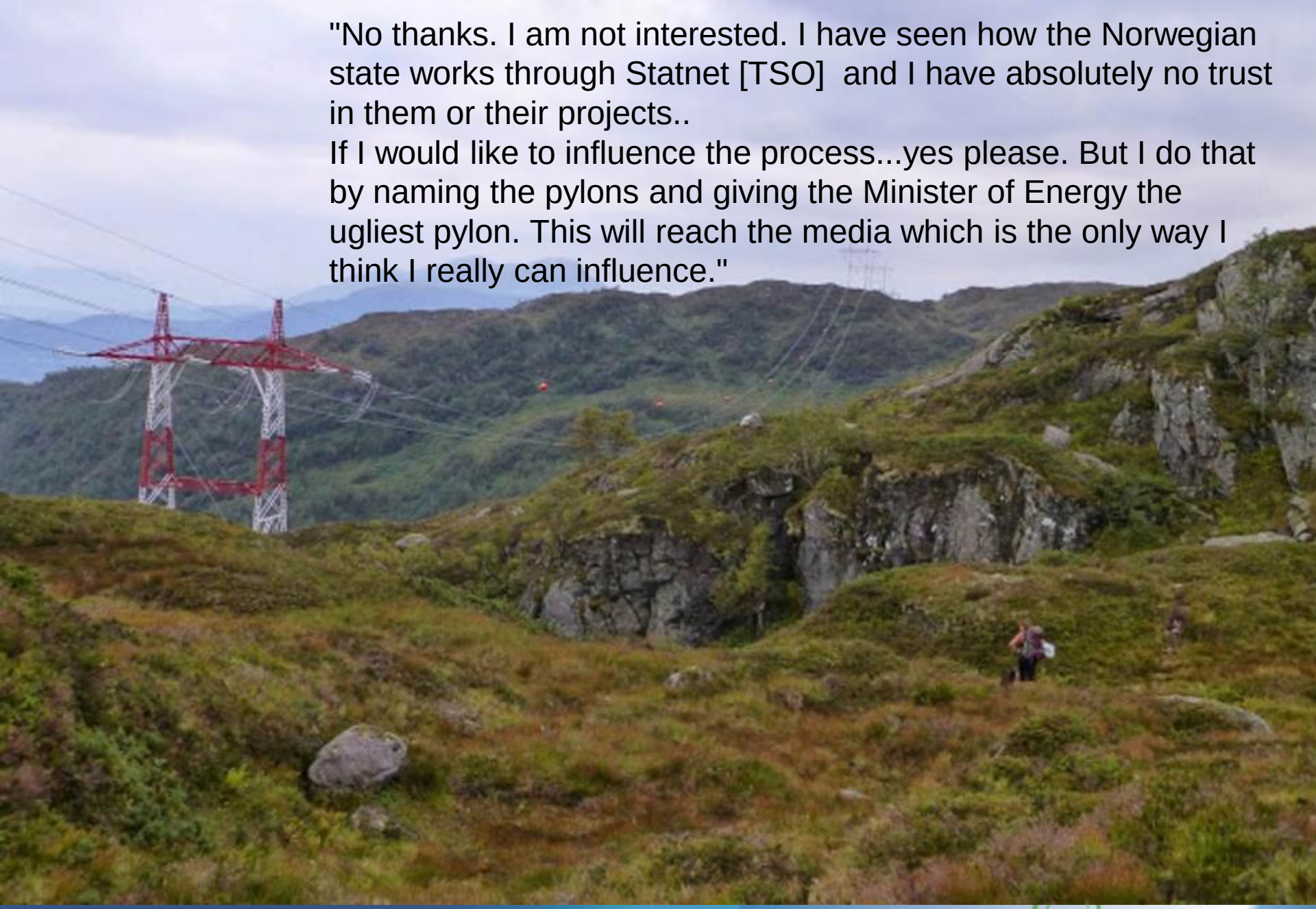
III. Main conclusions and Discussion

- Essentialisation of rural landscapes vs. the urban and industrial has historical roots and is embedded in institutional practices that are used by people to legitimize their representations between power lines and the countryside
- Essentialisation is also a political process that can be used by individuals and groups to pursue specific agendas and interests to the detriment of others – other landscapes, other groups

The challenges of public participation

Marte Qvenild, SINTEF Energy and Line C. Wold, NINA

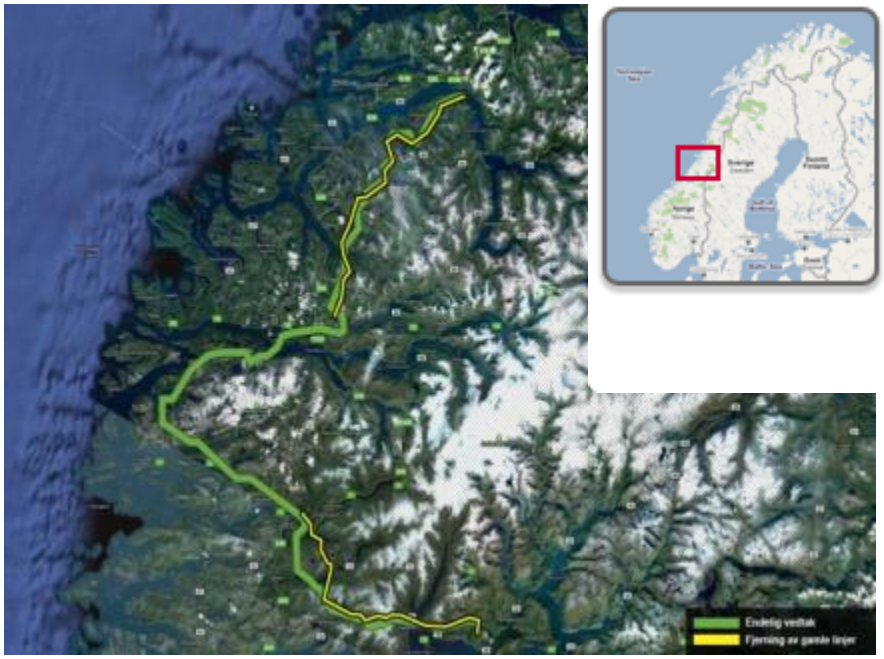
Grid infrastructure and public acceptance, 24.11.2014



"No thanks. I am not interested. I have seen how the Norwegian state works through Statnet [TSO] and I have absolutely no trust in them or their projects..
If I would like to influence the process...yes please. But I do that by naming the pylons and giving the Minister of Energy the ugliest pylon. This will reach the media which is the only way I think I really can influence."

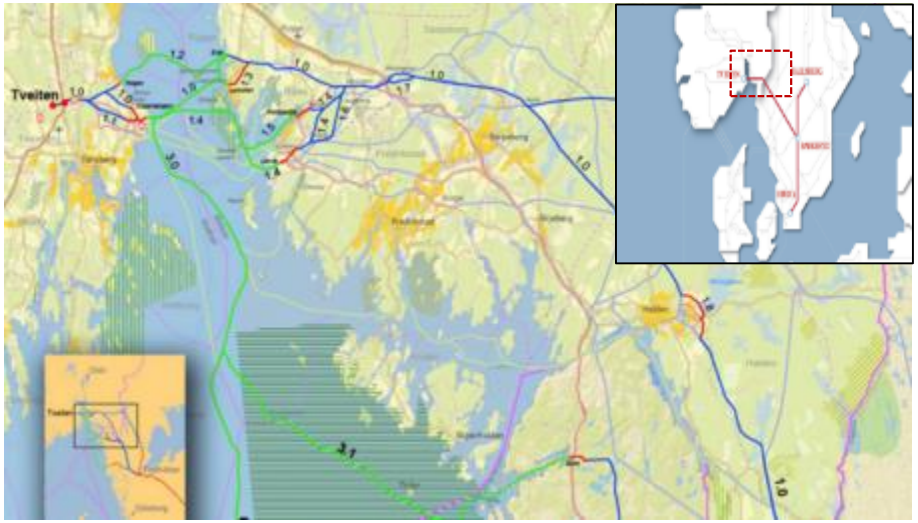
Structure

- Introducing the two Norwegian case transmission line projects
- Stakeholder interviews
- Focus groups in different localities
- Results
  - The perception of the need
  - Trust and procedural justice
  - Impacts and mitigation measures
- Summing up



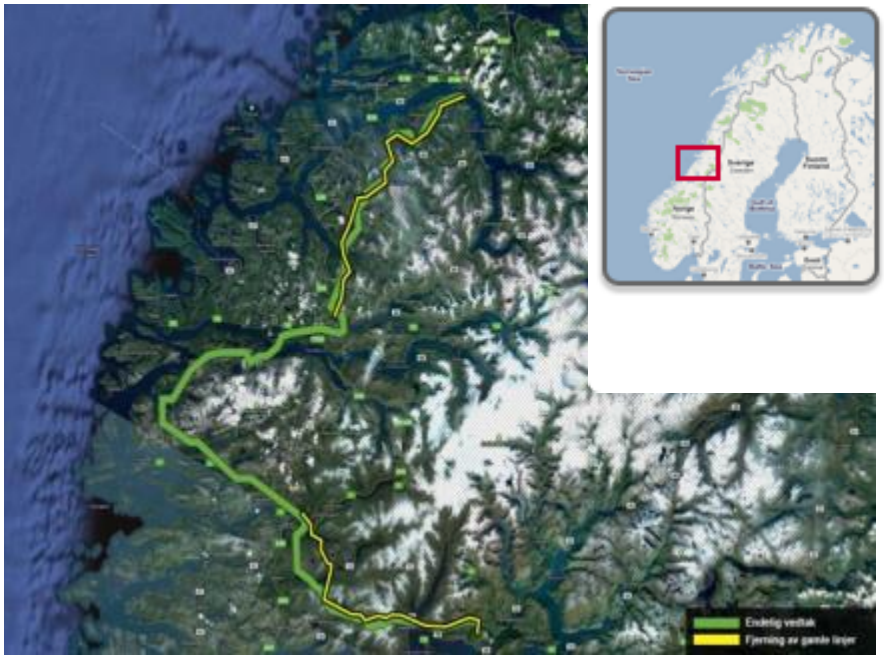
The Ørskog-Sogndal connection

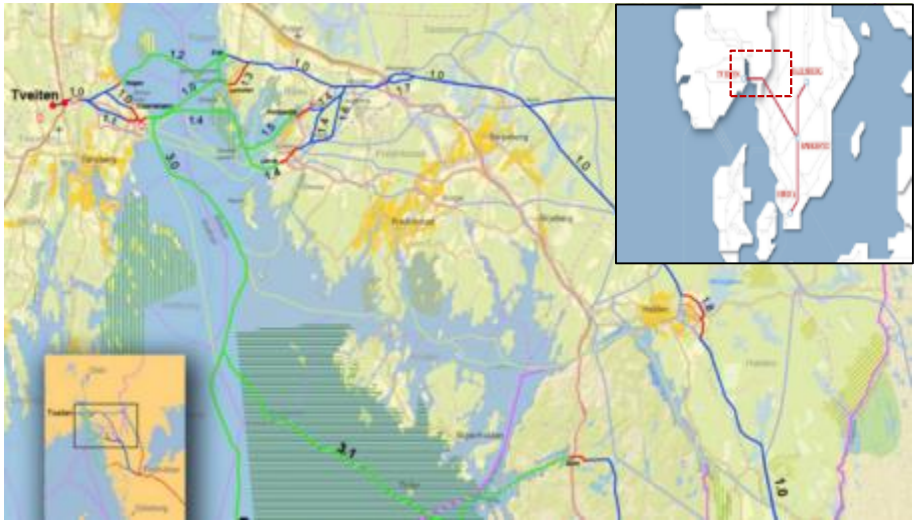
- Start: 2005/06
- Final concession in 2011



The SydVestlinken

- Start 2010
- Abandoned in 2013 on the Norwegian side due to lack of socioeconomic profitability





- Geographical and demographic location
- Temporal stages in the planning process
- The "need" argument
  - Ørskog-Sogndal: strengthen security of supply in Western Norway
  - SydVestlinken: strengthening the Nordic electricity network

Informants

Statnett (TSO)/NVE (Regulatory authority)	
Local, regional, national stakeholders	• Municipalities • County authority • County governor • Directorates • Ministry
Grid companies	• Regional grid companies
Interest groups	• NGOs • Local initiatives and groups
Local inhabitants	• Local inhabitants in affected communities

Methods

- 42 interviews during the spring 2013
- Stakeholders: Semi-structured single interviews
- Local inhabitants: focus groups
  - In total 7 focus groups in 5 localities
  - Enable insights into how issues are debated
  - Not representative, but enable comparing and contrasting perceptions across groups

The perception of the need

- Whether the need for the transmission line was perceived as legitimate and logically communicated
- Informants were concerned with the local need and potential local benefits
- Different perceptions of the need in SydVestlinken and Ørskog-Sogndal
  - SydVestlinken: Few local benefits, lacking information on the need
  - Ørskog-Sogndal: Greater local benefits

Trust and procedural justice

- The way information was communicated
- The process
  - New routing options introduced after the notification
  - Routing-alternatives predetermined
- Knowledge about the process

Impacts and mitigation measures

- Impacts
- Mitigating measures
  - Sea- and earth cable
  - Upgrading/removing existing lines

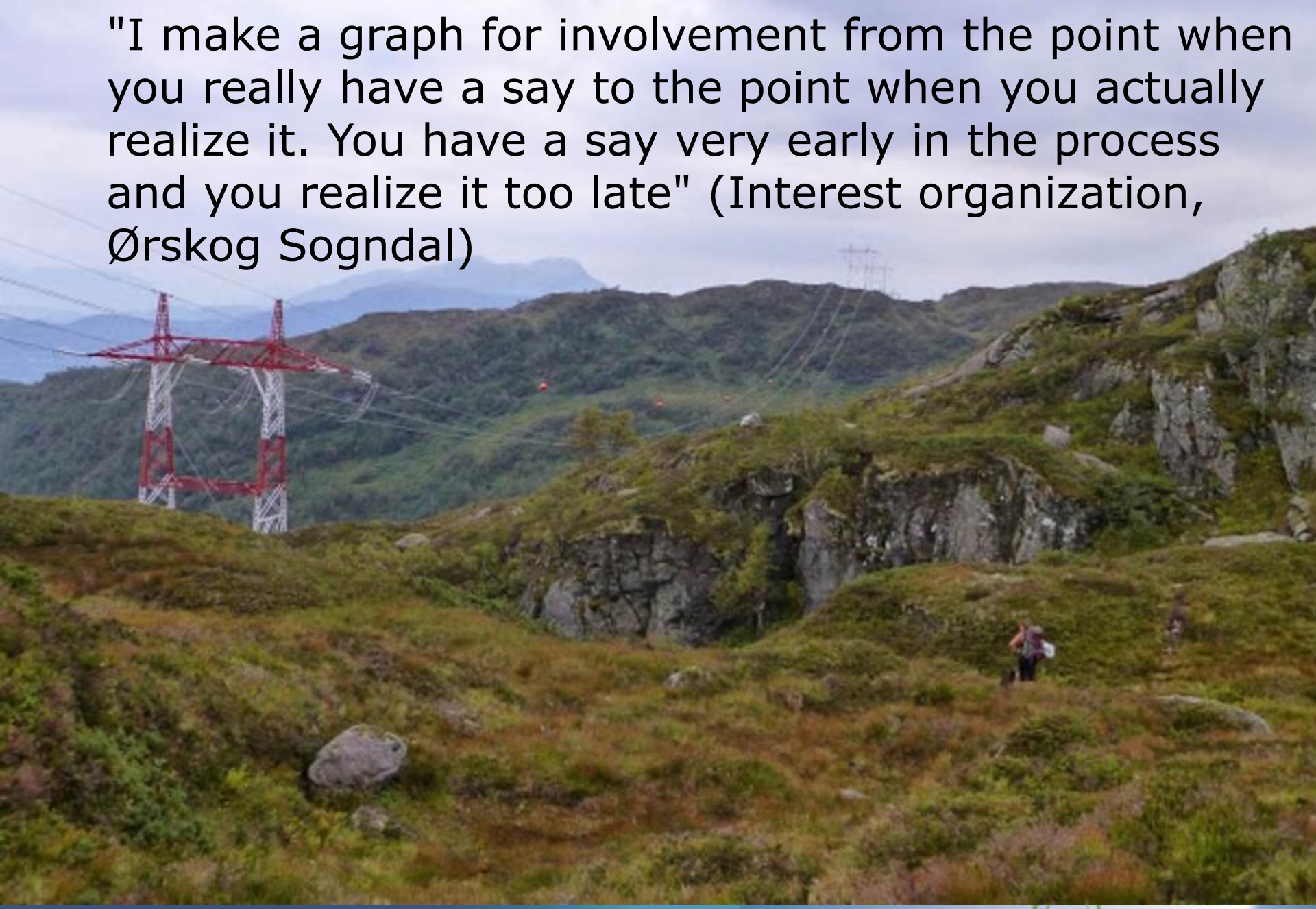
Summing up…

Consistence across the two cases despite the demographic, geographic and procedural differences

Local inhabitants' responses varied substantially from the responses of the other three groups (authorities, grid companies and interest groups)

Stages of the planning processes were perceived as predetermined (routing-alternatives)

"I make a graph for involvement from the point when you really have a say to the point when you actually realize it. You have a say very early in the process and you realize it too late" (Interest organization, Ørskog Sogndal)







www.cedren.no

SINTEF

NTNU
100 skapende år

NINA
Norsk institutt for naturforskning

NATURHISTORISK MUSEUM
UNIVERSITETET I OSLO

NIVA

uniResearch






Roundtable discussion

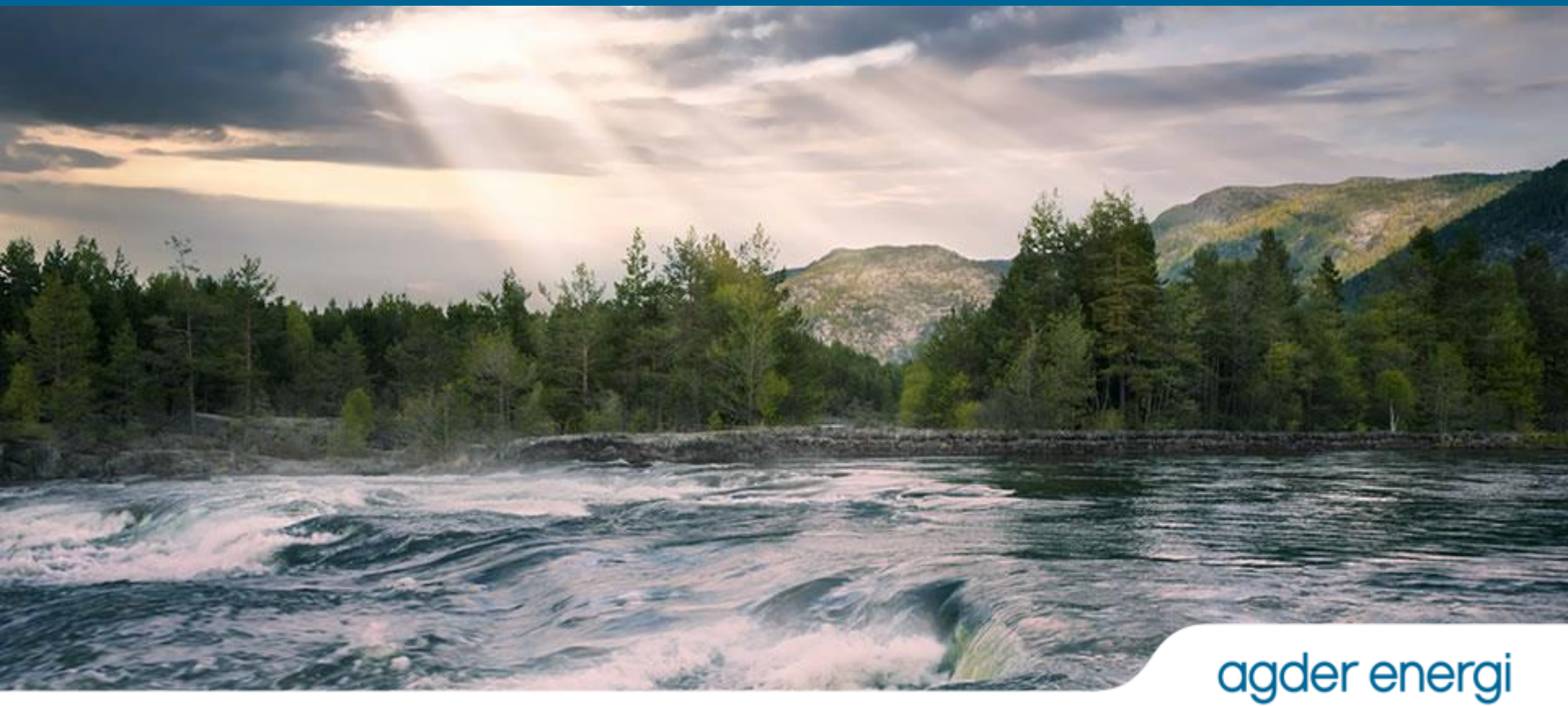
Chair: Audun Ruud, SINTEF Energy Research

Invited contributors:

1. Anne Tove Løvland, Agder Energy Nett
2. Jim Watson, UK Energy Research Centre
3. Antonella Battaglini, Renewables Grid Iniatiative

To be granted license – without complaints

Anne Tove S. Løvland , Agder Energi Nett, 24.11.2014



agder energi

The **formal** and the **in-formal** part of the license process.

Formal process

- Honna transformer station (420kV/132kV) and 3 km new road: aug. 2012 – des.2013
- Skjerka – Logna power transmission line (132kV), 30km: nov.2012. - des. 2013
- No complaints.

In-formal process in Åseral

- Thoroughly planned
- Dialogue with landowners (2011 – 2013 - ….)

Some of the factors leading to success in these projects.

- Pre-planning (KSU)
- knowledge of society
- time and dialogue

Knowledge

Thank you for your attention.