



Public perceptions of shale gas development

Jessanne Mastop

Utrecht, M4ShaleGas symposium

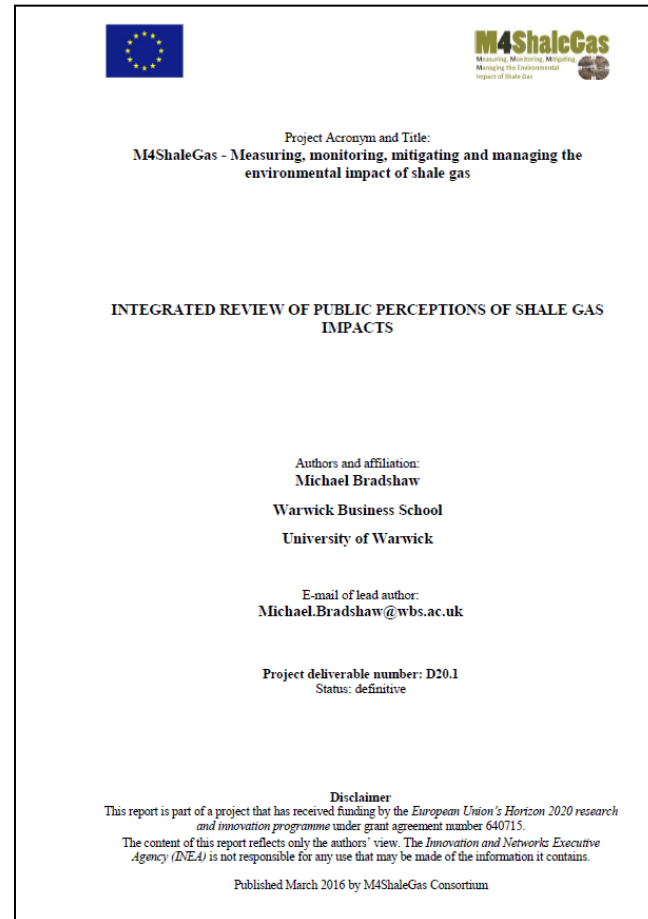
May 26, 2016



M4ShaleGas project

Addresses shale gas issues of following areas:

- SP 1. Subsurface
- SP 2. Surface
- SP 3. Atmosphere
- **SP 4. Society**



The image shows the cover page of a report. At the top left is the European Union flag. At the top right is the M4ShaleGas logo, which includes the text 'M4ShaleGas' and 'Measuring, Monitoring, Mitigating Managing the Environmental Impact of Shale Gas' with a small globe icon. The main title is 'M4ShaleGas - Measuring, monitoring, mitigating and managing the environmental impact of shale gas'. Below that is the subtitle 'INTEGRATED REVIEW OF PUBLIC PERCEPTIONS OF SHALE GAS IMPACTS'. The authors are listed as Michael Bradshaw from Warwick Business School, University of Warwick. The lead author's email is Michael.Bradshaw@wbs.ac.uk. The project deliverable number is D20.1 and the status is definitive. A disclaimer at the bottom states that the report is part of a project funded by the European Union's Horizon 2020 research and innovation programme under grant agreement number 640715. The content reflects only the authors' view and the Innovation and Networks Executive Agency (INEA) is not responsible for any use of the information it contains. The report was published in March 2016 by the M4ShaleGas Consortium.

Project Acronym and Title:
M4ShaleGas - Measuring, monitoring, mitigating and managing the environmental impact of shale gas

INTEGRATED REVIEW OF PUBLIC PERCEPTIONS OF SHALE GAS IMPACTS

Authors and affiliation:
Michael Bradshaw
Warwick Business School
University of Warwick

E-mail of lead author:
Michael.Bradshaw@wbs.ac.uk

Project deliverable number: D20.1
Status: definitive

Disclaimer
This report is part of a project that has received funding by the *European Union's Horizon 2020 research and innovation programme* under grant agreement number 640715.
The content of this report reflects only the authors' view. The *Innovation and Networks Executive Agency (INEA)* is not responsible for any use that may be made of the information it contains.

Published March 2016 by M4ShaleGas Consortium



Goals 1st year SP 4

Provide insight into shale gas perceptions in Europe by reviewing research on:

- public perception in North-America
- public perception in Europe
 - Focus on Poland, UK, Germany, The Netherlands
- public perceptions of other comparable large-scale energy technologies:
 - Focus on CCS, wind energy, nuclear energy



Three key issues identified

1. Awareness & acceptance
2. Perceptions of risks & benefits
3. Information provision & trust in stakeholders





Awareness & Acceptance: USA

- **Awareness**

- 50% of local respondents were aware of shale gas development in their neighborhood
- Regional variation in awareness and attitudes:
 - higher awareness when close to a development or in regions with intense political discussion

- **Acceptance**

- Regional variation in levels of acceptance
- On average slightly more support than opposition
- Majority is undecided
- Opposition seems to be growing over time





Awareness & Acceptance: **EU**

- **Awareness**

- Moderate to high levels of awareness:
 - 50% in Germany – 92% in Poland
- Knowledge is low:
 - even when close to development, 60% or more does not know what shale gas is

- **Acceptance**

- High levels of concern (80-90% is very concerned), except in Poland (<50% is very concerned)
- Support is only considerable in Poland, in UK 43% is undecided, Germany and Netherlands oppose





Awareness & Acceptance: other technologies

- **Awareness**

- Awareness of shale gas is *relatively high* compared to other newly introduced technologies
- *Pseudo opinions* are an issue: providing an opinion while having low levels of knowledge leads to unstable attitudes

- **Acceptance**

- Improving knowledge does not necessarily lead to more favorable attitudes
- Important to assess basis on which opinions are formed





Risks & benefits: **USA**

- Perceived **benefits**
 - Job creation
 - Boost local economy
 - Individual prosperity
 - Greater exposure to development = higher level of perceived economic benefits
- Perceived **risks**
 - Water contamination
 - Impact on landscape and wildlife
 - Increased traffic: safety, noise and light pollution





Risks & benefits: **EU**

- Perceived **benefits**
 - Economic development
 - Lower energy costs
 - Local employment
 - Improved energy security, import dependence
- Perceived **risks**
 - Water, air and soil pollution (methane leakage)
 - Seismicity (NL)
 - Traffic (congestion, noise, light, disturbance)
 - Impact on land use, public health & safety
 - Property values



Information & Trust: USA



- **Information**

- Mass media and (local) newspapers are important source of information
- Information landscape is formed by industry, environmental groups, landowner coalitions, peers
- Lack of transparency

- **Trust**

- Lack of agency and control
- Unfair distribution of benefits
- Mistrust of industry
- Government perceived as too closely aligned with industry
- More trust for scientist and experts, but also concerns about funding





Information & Trust: **EU**

- **Information**

- Disproportionate amount of information, given the limited amount of industrial activity

- **Trust**

- Mistrust of industry and national government
- Scientific researchers are seen as possible source of independent information
- Different opinions regarding the possibility to express views effectively before decisions are made on projects





Information & Trust: Other technologies

- **Information**

- Role of knowledge in shaping attitudes is limited
- Providing more information is not likely to sway negative attitudes once established.

- **Trust**

- Researchers and NGOs are trusted most as sources of information, energy companies and government face low levels of trust.
- Source of information should be trusted



Conclusions

- Public awareness is growing
- Growing level of opposition (except in Poland)
- Many people remain undecided
- Lack of trust in key stakeholders and lack of transparency and availability of independent information
- National and local context influences public opinion: more opposition and concern in potential shale gas regions
- Attitudes are often based on emotion rather than information



Future research

- Need for continued monitoring of developments in North America as well as EU
- Experimental research on factors influencing public attitudes, how people form opinions and how opinions may change over time
- Deliberative research to understand how citizen values and concerns regarding shale gas come to be formed in the process of debate and dialogue with other citizens and with experts
- Comparative European, and Europe-US cross national survey studies of citizen attitudes
- Challenges related to shale gas perceptions are not new, much can be learned from related technologies



What's next

Best practice guidelines and recommendations on:

- Communication strategies
- Information dissemination
- Engagement and participation
- Future research needs



Team Effort



Aleksandra Lis



Torsten Fleischer & Claudia Braendle



Nick Pidgeon, Merryn Thomas, Darrick Evensen, Tristan Partridge, Ariel Hasell, Catherine Enders & Barbara Herr Harthorn



Michael Bradshaw



Jessanne Mastop & Mariëlle Rietkerk



Questions?

