



European and national energy challenges and the regional community response

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Short intro

- > University of Groningen (founded 1614)
 - 6,000 staff
 - 30,000 BaMa students
 - 2,000 PhD's
 - Key topics:
 - Sustainable Society
 - Energy(6 MSc programmes)
- > Our own research unit
 - Social and Environmental Psychology
 - 14 staff
 - 30 PhD's, 3 MSc programmes



Linda Steg



Tom Postmes





Gas fields in North Netherlands Largest in Europe Dokkum 4028 Leeuwarden Franeker ANGLO-D Drachten. Sneek Nationaal Park Entsche As Het Vliet Heerenveen Fluessen Birmingham UNITED KINGDOM Duisban GERMANY Bonn BELGIUM 150 KOLOMETERS Robertson projection,

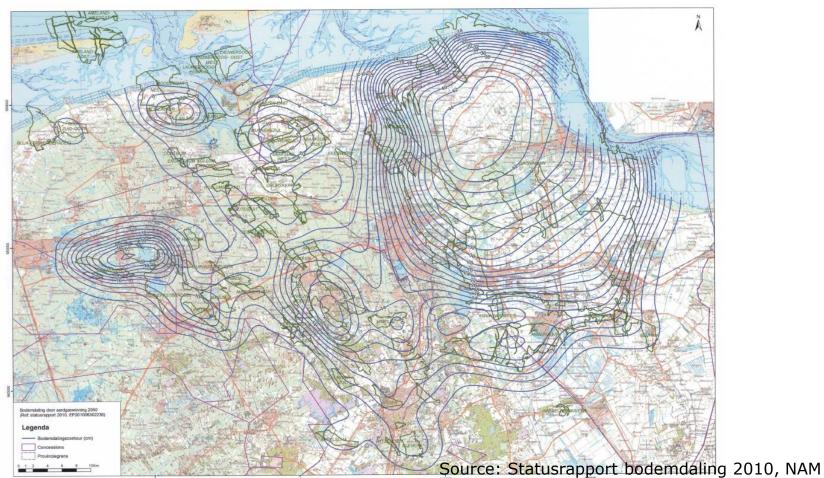
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Gas fields in North Netherlands

Densely populated

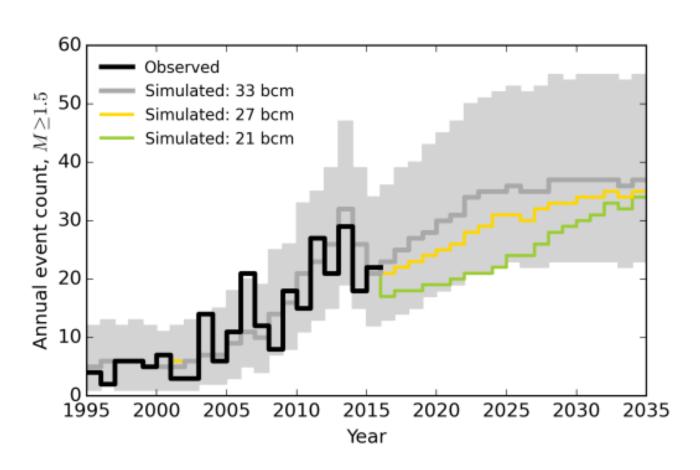








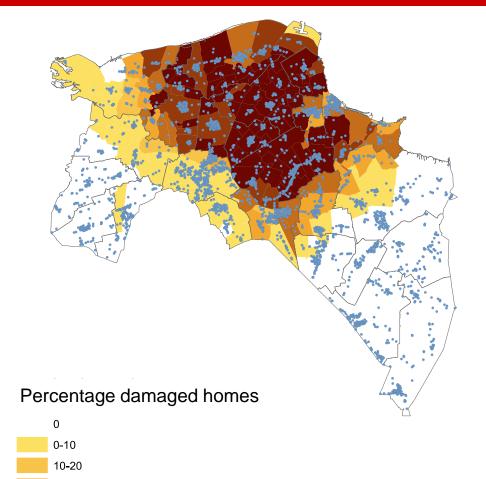
Induced earthquakes



Source: Bijlage winningsrapport NAM, 2016







20-30 30-40

40**-**50 >50

Consequences

- > Material damage:
 - 410,000 people at risk
 - 100,000 have damage
 - 25,000 multiple times
- > Immaterial damage:
 - Security, Health, Economic
- > Security of energy provision
 - Erosion of public support





Challenges and opportunities

- > National, corporate, international
 - Diminishing public support for gas extraction
 - Need to speed up energy transition
- > Regional
 - Intense distrust
 - top-down policies no longer acceptable
 - Growing number of community-based initiatives
 - Growing demand for smart energy solutions

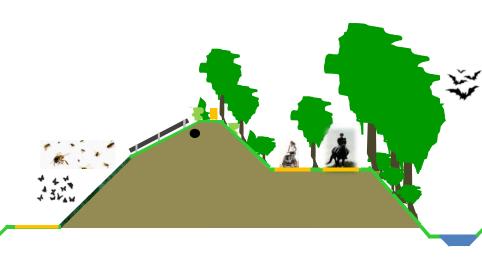


Baanbrekende hybride:

duurzame energie lokaal met ecologie, recreatie, landschap, woon- en leefkwaliteit, educatie en innovatie



landschappelijke inpassing recreatieve ruimte ecologische waarde van 5-6 h











nment, culture and

agenda

Focused on futuredevelopment of

- Sustainability: energy neutral living, economic viability
- Governance and justice: a healthy citizengovernment relation, equity, democratic and legal due process





What does our university have to offer?

- Neutral and reliable partner
 - -High levels of trust in local community
- Expertise on smart community solutions, legal and economic aspects
 - -Social dynamics of sustainability
 - Bottom-up community formation, energy cooperatives, collective action
- Ability to involve partners across disciplines and countries





Developing European partnerships

- > We seek to establish collaborations with other regions that face similar challenges. This case can be upscaled and made relevant for EU.
- > We see cross-linkages between Social Sciences, Humanities and STEM sciences within UNI-SET as critical to developing effective community support for smart solutions.





Human behavior within SET?

- > Citizens relate to energy in multiple ways
 - Not just consumers or prosumers
 - Humans with values, politics, habits, prejudices, entitlements, children, etc.
- > Social dynamics of adoption and innovation
 - Limited success of top-down change (technology push)
 - Improving end user involvement at all stages
 - Develop sustainable bottom-up approaches





Questions and comments

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