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# PRESS RELEASE

## No scientific or technical grounds to ban fracking – but it won't guarantee Europe's energy security, say European Science Academies

***In a statement published today, the EU's National Science Academies conclude that there are no scientific or technical grounds to ban shale gas exploration or extraction using hydraulic fracturing (commonly known as 'fracking'). However, they warn that fracking will not provide a miraculous solution for energy security or reducing greenhouse gas emissions.***

The Statement by EASAC, the European Academies' Science Advisory Council, suggests that, if effective regulation can be introduced, recent advances in technology and well management will allow the EU to ensure that local shale gas resources are extracted and used in ways that protect the environment, water resources and local communities. Nevertheless the Statement also emphasises that considerable uncertainty remains over the scale of shale gas resources and whether it is economically viable to extract them in different EU Member States. Consequently, EASAC stresses fracking is not necessarily a silver bullet for European energy security. Claims that shale gas exploitation can contribute to a net reduction in global warming from greenhouse gases (GHGs) are also dependent on avoiding methane emissions at all stages – from the initial drilling, through the production phase and after the well is closed (as is already the norm in European operations).

**The EASAC Statement analyses 3 key areas of concern to the EU:**

1. Given how highly populated Europe is and that most land is already in use, how could shale gas be exploited?
2. How could shale gas affect the EU's leading global position on reducing GHG emissions?
3. How to address the high level of public awareness and concern in many EU countries over fracking?

**Key findings include:**

- The conflicts over land use encountered in earlier fracking were based on many single-hole wells and have since been overtaken by new technologies which allow multiple wells from a single pad.

- Best practices, such as the replacement of potentially harmful additives and full disclosure to authorities of all the additives used, have greatly reduced the environmental footprint of shale gas fracturing and improved the transparency of the process.
- Europe's regulatory systems and experience of conventional gas extraction already provide an appropriate framework for minimising the impact on health, safety and the environment.
- Public acceptance will require trust, which must be based on actual projects demonstrating the reliability of the technology and operations. Pilot projects need to be carried out in Europe to demonstrate and test best practice methods, with careful monitoring by the authorities.
- Local community and environmental concerns mainly arise over the raw materials required. Fracking requires large quantities of water, so water should be recycled or non-water-based hydraulic fracking fluids used in areas where water supplies are already under pressure. The demands for sand may also be substantial, with possible effects on the areas from where it is extracted.

According to scientist Peter Burri of EASAC, these factors and the disturbance of drilling operations make community involvement critical: "While there is no scientific or technical reason to ban hydraulic fracturing, there are clear rules to be followed: Companies must work harder to obtain societal approval to operate, by engaging stakeholders in constructive dialogue and working towards agreed outcomes. Trust is critically important for public acceptance; requiring openness, a credible regulatory system and effective monitoring. Data on additives used and the results of monitoring to detect any water contamination or leakages of gas before, during and after shale gas operations should be submitted to the appropriate regulator and be accessible for the affected communities. The same openness to discuss on the basis of factual evidence must, however, also be expected from the other stakeholders."

The EASAC Statement also makes a number of recommendations on applying existing best practice, research and development needs, and minimisation of methane emissions, and also suggests that governments clarify the implication of any shale gas policy for research, development and implementation of low carbon renewable energy.

*The EASAC Statement on "Shale gas extraction: issues of particular relevance to the European Union" can be downloaded from the EASAC website* www.easac.eu*.*

***EASAC is formed by the national science academies of the EU Member States, to collaborate in giving advice to European policy-makers. EASAC provides a means for the collective voice of European science to be heard. Through EASAC, the academies work together to provide independent expert, evidence-based advice about the scientific aspects of European policies to those who make or influence policy within the European institutions.***

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