



**phases. It should better distinguish between the impacts of each option (e.g. on GDP, public budget/national and local tax revenues, security of supply, competitiveness, employment, consumers, local communities, compliance and administrative costs). When comparing the options, the report should elaborate more on their differences and trade-offs. Finally, it should explain the main concerns voiced by different stakeholder groups on the problems to be addressed, each of the considered options and their impacts.**

### **(C) Main recommendations for improvements**

#### **(1) Strengthen the problem definition, baseline scenario and subsidiarity analysis.**

The report should clarify if this initiative applies only to shale gas extraction or also other types of unconventional hydrocarbons (e.g. tight gas, coal bed methane). It should more clearly distinguish between problems, their drivers and consequences by better linking the description of the regulatory framework applicable and the identified environmental risks and expected effects. For example, which of the identified problems (e.g. seismicity, water resource depletion, community disruption, cumulative impacts) can be addressed by Directives on Environmental Impact Assessment (EIA), Integrated Pollution Prevention and Control, Environmental Liability, etc. and which, on contrary, are subjected to the diverging implementation of these legislation. The report should also explain more fully the problems related to public acceptance (i.e. are they mainly related to regulatory framework or other factors, such as unclear or missing information). It should provide further information on the concerns raised by businesses as regards the clarity of the applicable rules and the need for investment certainty. In this context, the report should present evidence that the current divergence of rules discourages investment rather than other possible explanations (such as permit conditions or duration of concessions). In doing so, it should explain the content of the Commission's 2011 guidance note and explain why it has not prevented diverging interpretations of the existing EU regulatory framework. Even though determining the level of risk seems to be highly uncertain, the report should make an effort to provide an estimate of the possible magnitude (e.g. best/worst case scenario regarding a number of incidents per well or per year), clearly differentiating between different phases of exploration and exploitation. The baseline scenario should assess how the identified problems, e.g. groundwater and surface water contamination, air pollution, will evolve over time without additional EU level requirements and clarifications for shale gas extraction. It should clarify what issues are already, or could be, addressed through national legislation, for example, applying Environmental Impact Assessment and permitting conditions.

**(2) Clarify the objectives and future monitoring and evaluation arrangements.** The report should present more specific, measurable and time-dependent objectives and link them to robust monitoring indicators. For instance, it should clarify what a high level clarity, coherence and stability to citizens, competent authorities and market operators implies in practice and how it will be measured if this objective is achieved. Moreover, it should better explain the trade-offs between environmental objectives and those of security of energy supply, as well as improving competitiveness, especially for energy-intensive industries (e.g. by clarifying that the objective is not to discourage fracking or duplicate national regulations, but to provide a framework for safe and secure extraction of unconventional hydrocarbons, leaving as much flexibility as possible for the operators). The report should better link the objectives to the specific problems identified (e.g. site selection and planning, underground risk characterisation and assessment, well integrity) and the criteria for comparing the options (e.g. timeliness, responding to public

concerns, enforceability).

**(3) Better define, assess and compare the options.** The report should define the options more in terms of substance rather than form of implementation, for example, by defining them in terms of increasing stringency with regards to requirements for operators. It should for each element justify the proportionality of applying requirements equally to exploration and exploitation phases, for example, by specifying that the proposed measures apply only to exploration phases which involve the injection of fracking fluid. The report should clearly present the impacts of each option, e.g. regarding GDP, public budget/national and local tax revenues, security of supply, competitiveness of affected sectors (especially for energy-intensive industries), employment, local communities, consumer impacts and address better redistribution effects between sectors of economy and regions. It should also better explain why shale gas extraction in the EU creates significantly less benefits than in the US and clarify how impacts of shale gas extraction compare to those of other non-renewable energy sources (other than conventional gas). In case of direct impacts on SMEs, the report should discuss whether lighter regimes should be applied. It should clarify if microenterprises are concerned and explain if they need to be covered and why. The report should explain how compliance and administrative costs were calculated and clarify the additional administrative costs for each option. It should better describe the methodology used for the assessment of impacts, in particular, macro-economic impacts and compliance costs, the main underlying assumptions and the uncertainty level of the results presented. The report should consider potential implementation and compliance challenges for options where the new requirements may overlap with the diverging national law currently in place. When comparing the options, it should present a clear summary of all the main impacts of each option. In doing so, the available estimates on costs and benefits of each option should be integrated in the summary to allow a comprehensive comparative overview. As the report does not identify the preferred option, the conclusion should elaborate more fully on the differences and trade-offs among the options.

**(4) Clarify the stakeholder views.** The report should better reflect the different views of stakeholders throughout the report, in particular regarding the perceived regulatory gaps, positive and negative impacts of each option and their comparison. As the views of the different stakeholder groups are diverging or conflicting, the report should make greater distinction among them (e.g. distinguish between different business sectors) and better explain the different views of Member States.

*Some more technical comments have been transmitted directly to the author DG and are expected to be incorporated in the final version of the impact assessment report*

#### **(D) Procedure and presentation**

The report should be shortened to provide space for a more elaborate assessment of impacts.

#### **(E) IAB scrutiny process**

Reference number	2013/ENV/004
External expertise used	No
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