

ANNEX I.

Mandate of the European Science and Technology Network on Unconventional Hydrocarbon Extraction

(7th July 2014)

The Communication on the exploration and production of hydrocarbons (such as shale gas) by high volume hydraulic fracturing concluded that "it is necessary to continue increasing our knowledge on unconventional hydrocarbon extraction technologies and practices also in order to further reduce potential health and environmental impacts and risks. In this context, it is essential that information is open and transparent to the public".

It announced that "the Commission will establish a **European Science and Technology Network on Unconventional Hydrocarbon Extraction**, bringing together practitioners from industry, research, academia as well as civil society. The Network will collect, analyse and review results from exploration projects as well as assess the development of technologies used in unconventional gas and oil projects".

The network will be established and managed by the JRC, on the basis of the guidance provided by the Steering group composed of DG ENV, ENER, RTD, CLIMA, ENTR and JRC.

DG ENV and ENER will co-chair the Steering group.

The objectives of the Network are:

- Structuring the dialogue among the stakeholders, fostering open information and knowledge sharing;
- Presenting and discussing research activities and their results, as well as identifying gaps and R&D needs;
- Examining knowledge gained from exploration and demonstration projects;
- Identifying and assessing emerging technologies including their economic, environment and climate impacts.

This will be carried out by:

- Bringing together all relevant stakeholders to foster a common understanding on relevant topics;
- Sharing information on science & technology developments and reviewing R&D results and needs.

Participants in the network will be relevant practitioners from industry, research, academia, and civil society, so as to ensure a fair and balanced exchange of ideas.

The necessary resources to manage the network will be provided by the JRC. In addition, Horizon 2020 funding could be provided to ensure a balanced participation.

The work of the network will be coordinated by JRC in agreement with the Steering group. It shall be complementary to related Commission initiatives, in particular to the revision of the

BREF on the management of extractive waste, the development of a new BREF on hydrocarbon exploration and production, the exchange with Member States in the Technical Working Group on environmental aspects of unconventional fossil fuels and EU funded research activities.

JRC will take charge of interacting with the members of the Network, and of organizing all relevant meetings and activities, including communication activities. It will in particular support the production and publishing of the Network's reports, working documents and other results. Any official communication material published externally as well as any preparatory document for meetings of the network (e.g. agenda, presentations, background material) will be subject to prior agreement by the Steering group. Other interested Commission services are invited to participate in the activities of the network.

The Network will disseminate the results of its work by:

- Preparing joint reports and technical notes;
- Organising an annual conference in Brussels followed-up by a yearly report;
- Ad hoc workshops.

The Network will operate in full transparency. Reports, technical documents, minutes of meetings and summaries of conferences, workshops and seminars will be made available on the internet. Conferences, workshops and seminars should be organised in Brussels.

The Network will initially be set up for a period of 3 years (2014-2017) and be reviewed by the Steering group taking into account the value of the network, synergies with other initiatives on unconventional hydrocarbon extraction, balanced exchange of ideas and level of participation.

Initially the Network will focus on the following work programme:

- **Exploration and demonstration and production projects in the EU**

The Network should collect data obtained from exploration and possible demonstration and production projects as well as related research projects carried out in the EU and carry out a comparative assessment. Such assessment can be put in perspective with similar projects carried out abroad. This effort should take into account data inter alia gathered from the reporting of Member States on exploration and production of hydrocarbons using high volume hydraulic fracturing (as per Recommendation 2014/70/EU) but should not be restricted to this technology.

Current exploration and possible demonstration projects as well as related research projects should contribute to assessing resources, adjusting existing technologies to the local geological situation and assessing impacts of applied technologies on the environment.

Deliverables:

- Comprehensive list of existing as well as, where relevant, planned projects in the EU (first list due in April 2015);
- Database, which is continuously updated, specifying for each project:
 - i. Location and operator;
 - ii. technical and environmental data available;
 - iii. data related to the potential of the reservoir;
 - iv. assessment of data gathered with regard to technically and economically recoverable potential and environmental impacts and risks;
 - v. occurrences of incidents, their causes, consequences and remediation actions taken (per project);
- Comparative analysis of all projects assessed, including, if appropriate, comparison at international level;
- Presentation of results at the annual conference;
- Summary of the results in yearly reports.

• **Emerging technologies for well stimulation**

The Network should complement, further deepen and update the JRC document of 2013 providing "an overview of hydraulic fracturing and other formation stimulation technologies for shale gas production" based on practical experience with these technologies in exploration, possible demonstration and production projects in and outside the EU.

Deliverables:

- Comprehensive list of emerging technologies used in exploration and possible demonstration and pilot production projects at global scale;
- Based on this list, a yearly report (first one due on April 2015) on
 - i. Emerging technologies that may be suitable for use in the EU and their possible timeframe for use;
 - ii. Assessment of economic, environmental and climate change related pros and cons in comparison to currently used fracturing techniques;
- Presentation of results at the annual conference.

**ANNEX II. DECISION OF THE STEERING GROUP
OF THE EUROPEAN SCIENCE AND TECHNOLOGY NETWORK ON
UNCONVENTIONAL HYDROCARBON EXTRACTION
ADOPTING THE STEERING GROUP RULES OF PROCEDURE AND OF
MANAGEMENT**

THE STEERING GROUP OF THE EUROPEAN SCIENCE AND TECHNOLOGY
NETWORK ON UNCONVENTIONAL HYDROCARBON EXTRACTION

Having regard to the Mandate¹ of 7 July 2014 establishing the European Science and
Technology Network on Unconventional Hydrocarbon Extraction

HAS ADOPTED THESE RULES OF PROCEDURE AND MANAGEMENT:

Article 1

Members of the Steering Group

1. The Steering Group shall be composed of representatives of the Directorate Generals as defined in the Mandate¹ of 7 July 2014 establishing the European Science and Technology Network on Unconventional Hydrocarbon Extraction.
2. Each representative may have one or more appointed alternates.
3. The Steering Group is chaired by two co-chairs as defined in the Mandate¹ establishing the European Science and Technology Network on Unconventional Hydrocarbon Extraction.

Article 2

Convening of meetings of the Steering Group

1. The Steering Group shall hold its ordinary meetings once a year.
2. The Co-chairs shall convene the meetings of the Steering Group by sending a written notice (by means of a letter, e-mail), accompanied by the provisional agenda and the relevant documents for decision-making, to each Steering Group Member not later than twenty working days prior to each meeting. Any other relevant material for the meeting shall be sent no later than five working days before the meeting.

¹ See Annex 1

3. The technical secretariat to the European Science and Technology Network on Unconventional Hydrocarbon Extraction provided by the JRC supports the co-chairs in the organisation of the meetings.
4. Extraordinary meetings may be requested by a member of the Steering Group. When an extraordinary meeting is requested, the Co-chairs shall convene the meeting by sending a written notice (by means of a letter, e-mail), accompanied by the provisional agenda and the relevant documents for decision-making within ten working days from the date of receipt of the request.
5. The Steering Group meetings may take place by audio conference, video conference or other means of communication.
6. Minutes shall be drafted by the technical secretariat to the European Science and Technology Network on Unconventional Hydrocarbon Extraction. Any decisions taken by the Steering Group during its meetings shall only be valid and effective when the minutes of the meetings are approved by each Steering Group Member.

Article 3

Agenda of meetings of the Steering Group

1. The provisional agenda shall be drawn up by the Co-chairs assisted by the technical secretariat to the European Science and Technology Network on Unconventional Hydrocarbon Extraction. The agenda shall be drawn up taking into consideration the role and tasks to be performed by the Steering Group as defined in the Mandate¹ of 7 July 2014 establishing the European Science and Technology Network on Unconventional Hydrocarbon Extraction.
2. The provisional agenda shall contain the following items:
 - (a) adoption of the agenda;
 - (b) adoption/approval of the minutes of the preceding meeting provided the minutes have not been approved/adopted by written procedure;
 - (c) items for decision of the Steering Group;
 - (d) items for opinion of the Steering Group;
 - (e) items for information and discussion;
 - (f) any other business.
3. The Steering Group Members may request specific questions to be included on the provisional agenda no later than ten working days before the date of the meeting. Such requests shall be submitted in writing to the Co-chairs and in copy to the technical secretariat to the European Science and Technology Network on Unconventional Hydrocarbon Extraction. Not less than seven working days before the

date of the meeting, the Co-chairs shall issue the final agenda and notify the Steering Group Members of their decision to include or not to include each such additional item or question on the agenda.

4. The agenda shall be adopted at the beginning of each meeting.
5. With the agreement of the Steering Group, urgent questions may be added to the agenda at any time prior to the end of the meeting and items on the agenda may be deleted or carried over to a subsequent meeting.

Article 4

Decision making of the Steering Group members

1. The Steering Group Members will work together in the spirit of collaboration and for the benefit of the EU as a whole and its citizens. Steering Group Members shall reach decisions by consensus.
2. Each decision adopted by the Steering Group shall be recorded in the minutes. Upon a request by a Steering Group Member, a statement of his/her views may be entered in the minutes together with the decisions taken.

Article 5

Minutes

1. The minutes shall be drafted after each meeting of the Steering Group by the technical secretariat to the European Science and Technology Network on Unconventional Hydrocarbon Extraction. The minutes shall contain the agenda, a summary of the discussions, the decisions taken, a listing of the items for information, the follow-up actions, and the conclusions, as well as the list of attendance.
2. The draft minutes shall be forwarded to the Steering Group Members not later than ten working days after the meeting.
3. The Steering Group Members shall send their written comments to the Co-chairs and the technical secretariat to the European Science and Technology Network on Unconventional Hydrocarbon Extraction not later than ten working days after receipt of the draft minutes. The Steering Group Members who do not provide their comments will be considered to have given their tacit agreement to the minutes.
4. The minutes shall be agreed by e-mail before the next Steering Group meeting. The final text of the minutes shall be forwarded to the Steering Group Members by e-mail.
5. The list of decisions taken shall be made public and published on the website of the European Science and Technology Network on Unconventional Hydrocarbon Extraction.

Article 6

Membership in the European Science and Technology Network on Unconventional Hydrocarbon Extraction

1. The Network shall be composed of interested parties that have registered their interest on the website of European Science and Technology Network on Unconventional Hydrocarbon Extraction.
2. Individuals and organisations from industry, research, academia and civil society shall be eligible for membership in the European Science and Technology Network on Unconventional Hydrocarbon Extraction.

Article 7

Technical Secretariat

1. The JRC shall provide the technical secretariat and the appropriate administrative support to enable the Steering Group and the Working Groups of the European Science and Technology Network on Unconventional Hydrocarbon Extraction Steering Group to carry out its work.
2. The technical secretariat of the European Science and Technology Network on Unconventional Hydrocarbon Extraction shall establish and maintain a dedicated website. The website shall be used for communication with stakeholders and for the publication of documents.
3. The technical secretariat shall provide technical support for the organisation of meetings of the steering group, meetings and seminars of the working groups as well as of the plenary sessions.

Article 8

Work programme

1. The Steering Group shall establish the work programme of the European Science and Technology Network on Unconventional Hydrocarbon Extraction.
2. The work programme for the period of 2014-2017 shall be as outlined in the Mandate¹ of 7 July 2014 establishing the European Science and Technology Network on Unconventional Hydrocarbon Extraction.
3. The Steering Group may decide to amend the work programme.

Article 9

Working groups

1. The Steering Group shall establish working groups that execute the work programme of the European Science and Technology Network on Unconventional Hydrocarbon Extraction.
2. The working groups shall be composed of interested parties. Membership to the working groups shall be established following a call published on the website of the European Science and Technology Network on Unconventional Hydrocarbon Extraction. Individuals and organisations from industry, research, academia and civil society shall be eligible for membership in the working groups. Consultancies shall declare the interest they represent. Members of a working group may either
 - a. contribute with evidence based knowledge to the network's analysis and assessment
 - b. provide views but not contribute to the scientific and technical work per se.
3. The Steering Group appoints a chair and a vice-chair of each working group. The term of the chair and the vice-chair lasts one year with the possibility for renewal for a maximum of a further two years, subject to a decision by the Steering Group.
4. Each working group shall be autonomous in organising its tasks.
5. The chairs of the working groups shall steer and moderate the discussions of the WG in a spirit of open dialogue and collaboration, giving due consideration to the mandate of the network. The Chair shall report to the Steering Group.
6. The Vice-Chair will support the Chair in fulfilling his/her responsibilities. The Chair will consult the Vice-Chair on a regular basis. If the Chair is not in a position to fulfil his/her function, he or she will be replaced by the Vice-Chair.
7. The Commission shall be represented at each working group meeting. Interested representatives from Commission services can become members of such working groups.
8. The technical secretariat shall promote a common structure for the reports of the working groups.

Article 10

Dissemination of results

1. The technical secretariat shall organise the annual plenary session of the network. The annual plenary session shall present and discuss the progress of the working groups.

2. The working groups shall summarise and present their results in technical reports. These reports shall include dissenting views, if expressed. All reports shall be published on the website of European Science and Technology Network on Unconventional Hydrocarbon Extraction.

Article 11

Amendment of Rules of Procedure

1. A Steering Group Member may propose to amend these Rules of Procedure.
2. The Rules of Procedure shall be amended following approval by decision of the Steering Group.

Article 12

General provisions

These Rules of Procedure and any amendments shall be published on the website of the European Science and Technology Network on Unconventional Hydrocarbon Extraction.