The Commission created the Network as a complement "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" [1].

The provisions governing the Network are set out in the Commission document 'Mandate of the European Science and Technology Network on Unconventional Hydrocarbon Extraction' of 7 July 2014 [2].

According to the mandate, 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 is to 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.

The mandate provides that "[p]articipants 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 Network was officially launched on 8 July 2014 [3] for a duration of three years.
Following the launch event, where the objectives, working modalities and expected results of the Network were presented to interested stakeholders, an open call for expression of interest for participation in the Network was published. Its purpose was to set up the Network's two working groups.

According to Article 6.1. of the Network's rules of procedure, "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". Article 9.2. of the rules of procedure clarifies that membership of the working groups shall be established following a public call. The provision specifies the criteria for membership in the working groups that have to be met by stakeholders that have expressed interest in participation:

"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 working per se."

It appears that interested stakeholders could express their interest to join the Network at any point in time. The Joint Research Centre's website dedicated to the Network stated that new participants were accepted to the working groups on a continuous basis:

"It is reminded that "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". To this end, we would ask you to provide us with a short summary of what you consider would be your contribution. It would be helpful if, in addition to providing reasons for your motivation, you could include a CV outlining your experience in the field. Applications for membership in one or both Working Groups are welcome at any time."

In addition to third party stakeholders, "interested representatives from Commission services can become members" of the working groups.

The two working groups had the task of executing the Network's work programme, as set out in the mandate:

"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:
  - Location and operator;
  - Technical and environmental data available;
  - Data related to the potential of the reservoir;
  - Assessment of data gathered with regard to technically and economically recoverable potential and environmental impacts and risks;
  - 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
  - Emerging technologies that may be suitable for use in the EU and their possible timeframe for use;
  - 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.

**Working group 1** dealt with 'Exploration and demonstration and production projects in the EU' [10], while **working group 2** dealt with 'Emerging technologies for well stimulation' [11]. The working groups met three times in 2015: on 23 and 24 February 2015 [12], on 10 June 2015 [13], and on 5 November 2015 [14].

The Network held an annual conference on 23 February 2016 where the work of the working groups was presented and discussed [15]. Anyone interested in the annual conference was invited to attend. [16] It was at the annual conference that the Commission announced its decision to disband the Network's working groups and to continue the remaining research in-house in its Joint Research Centre.

The Joint Research Centre has summarised the **key features of the Network** as follows [17]:

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3
The Network is an initiative of the Commission as a whole that is managed by the JRC.

Practitioners from industry, research, academia and civil society are welcome to join the working groups of the Network at any time. The number of participants from each category reflects registrations received. While the Commission insists on a fair and balanced exchange of views, it is not within the means or the objectives of the Commission to achieve a balance in terms of matching numbers of participants from each category.

All interested people are welcome to attend the annual conference.

The Network is aimed at collecting technical and environmental data. Reports and other deliverables will be of a technical nature; e.g. peer reviewed scientific publications. The results of the Network will be considered by the Commission among other sources of information.

It is not within the mandate of the Network to give advice to the Commission on shale gas policy. Participants to the Network cannot be considered as shale gas advisers to the Commission. Views expressed by participants of the Network do not necessarily represent the views of the Commission.


[7] Meanwhile, the relevant website has been updated and now also states the following: “Nevertheless, it should be noted that the Commission has decided that after the 1st Annual Conference, the running of the current Working Groups will end and no new Working Group meetings will be convoked.” (https://ec.europa.eu/jrc/en/uh-network/how-get-involved)


