

European University Association

Contribution to the Public Consultation on

Towards a New Energy Strategy for Europe 2011 – 2020

The European University Association (EUA) holds the firm view that Europe's universities should have a recognised and distinct role to play in the forthcoming new EU Energy Strategy. University research and training environments foster innovation with their potential for interdisciplinary approaches, particularly through collaborative research projects with external industry partners. Europe's universities have the capacity both to develop new skills by providing specialised education that encourages entrepreneurial skills and approaches to the development of new energy technologies and markets, and to conduct "frontier" basic research addressing long term 2050 energy perspectives.

Energy and climate issues are among the greatest challenges facing our world today. In order to substantially reduce the impact of energy conversion on the climate and secure affordable access to energy in the future, the way we produce, manage and use energy requires to be changed completely. By the middle of this century, more than half of our energy supply needs to be turned into an emission free system necessitating a global change exceeding in impact even the industrial revolution. Huge research and training efforts have to be mobilised in the coming decades to meet this challenge, particularly to realise the professional and technical skills required in new jobs to be created in the energy sector.

In response to this challenge, the European Union has recognised energy research as a highly strategic field. Accordingly, the EU has established a Strategic Energy Technology Plan (SET-Plan) in important energy technology areas such as renewable energies and carbon capture and storage. Furthermore, the European Commission "EU 2020" strategy for "smart, sustainable and inclusive growth" envisages a "more resource efficient, greener and more competitive economy based on knowledge and innovation". Harnessing the potential of education and research and the acquisition of new skills fostering creativity and innovation will be crucial in realising these strategic goals. The "Stock taking document" prepared for this public consultation correctly places greater emphasis on the need for major investment in public education and new skills development required for energy sectors. To effectively manage such large efforts, new instruments will need to be introduced calling for better coordination and integration of European R&D and training capacity. The European Energy Research Alliance (EERA) constituting major national research institutes in Europe together with the involvement of the EUA for Europe's universities and EUROHORCS for national research funding bodies is an example of such initiative.

Historically, at national research institutes a strong emphasis has been placed on large-scale energy related projects. This was borne out of the necessity for integrated research on large systems, e.g. nuclear power plants. Today's requirements, however, are different in the sense that a multiplicity of approaches and techniques assume more and more importance. Looking at current and future requirements, the role of the universities is rather under-emphasised in European R&D policy on energy. Energy research is performed at many universities where the broad scope offered by an interdisciplinary environment matches the future needs in global energy and climate research. The task for Europe's universities is to present themselves in a comprehensive way in energy-related

research and training and this should be taken-up urgently in a way that shows how they are a necessary part of the research landscape alongside the national research institutions.

To strengthen the position of European universities in EU energy research, the European University Association (EUA) is establishing **the European Platform of Universities engaged in Energy Research (EPUE)**. EPUE has been positively received by the European Commission DG Research, Innovation and Science and it forms part of the European Energy Research Alliance (EERA). The main tasks of the European Platform (EPUE) are the following:

1. To provide a strong “one” voice for universities in EU energy research, particularly in the SET-Plan context;
2. To ensure that characteristic university attributes such as fundamental research and training are properly included in the upcoming EU energy activities;
3. To facilitate competitive European university groupings to participate in the realization of the SET-Plan, in particular through the EERA and the Joint-Programming activities;
4. To bind more strongly the various disciplines ranging from natural sciences, engineering to social sciences and arts/humanities to best fulfill the needs of the society in energy research;
5. To speak for long-term thinking in European research agendas and initiatives, with due consideration given to a balance between top-down and bottom-up research strategies.

The basic idea of EPUE is to work openly and transparently to promote and provide an added value to university-based research and training capacity in the energy field. EPUE operates under the auspices of the EUA guided by a Steering Group and works as a part of EERA. The work of building the European Platform was initiated in 2009 and the EPUE will be formally launched in autumn 2010. At present, over 130 European universities have joined the European Platform and its membership remains open to universities with research and training capacities in energy fields.

Collected initial data from EPUE members on research personnel and projects and educational capacity (at Masters and Doctorate degree level) show that research groups and activities have the necessary critical mass and a majority of EPUE universities have long-term projects with external industry partners and other research organisations. EUA would assert, therefore, that Europe’s universities in their activities in basic science, multidisciplinary research and training in energy fields should receive greater attention in future discussions of European energy policies. Universities are natural places for education, research and industry partners to work together efficiently in the open innovation environment in which new energy fields can prosper.

*The **European University Association (EUA)** represents and supports **higher education institutions** with approximately 850 members in 46 countries. Members of EUA are European universities involved in teaching and research, national associations of rectors and other associations and networks active in higher education and research.*

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www.eua.be