The Launch of the European Platform of Universities engaged in Energy research (EPUE)

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Background

**EUA** joined the European Energy Research Alliance (**EERA**) in an observer capacity in October 2008 after a decision of the EUA Council, following the invitation of the European Commission.
European Platform of Universities engaged in Energy Research (EPUE)

- **EPUE** Main Objective:
  Promote European university energy research and education, and voice the interest and role of European universities in EU energy related research, and their policy related development.

- **EUA** has established **EPUE** as an open and transparent platform under the auspices of the EUA Council. It works under the guidance of a steering group.

- **EPUE today**: 148 members, 28 countries (05/11/2010) within **EUA**: 850 members, 46 countries
Main Tasks of EPUE

- To facilitate competitive European university groupings to participate in the realization of the SET-Plan, through cooperation with the EERA and the Joint Programming activities, the EIIIs and other initiatives.

- To ensure that university capabilities in long term fundamental research and training are utilized in the upcoming EU energy activities, and that a good balance between top-down and bottom-up research strategies is applied.

- To mobilize cross disciplinary research and education, encompassing from natural sciences and engineering to social sciences, arts and humanities to best enable development of innovative energy technologies, and their implementation in society.
EUA-EPUE in a Snapshot

- **148 universities** (November 2010)

- **University Research Areas in the Energy Field**
  - Specific topic areas, Total Number: 1,432 topics
  - Research staff\(^*\), Total Number: 19,333 persons
  - Average group size (FTE) per specific topic: 14 persons

\(^*\)Professors, faculty, doctoral holders, doctoral candidates, other researchers, technical assistants

- **Total approximated university research budgets:** 7 Billion €
- **Energy-related estimated research budgets:** 986 Million €

- **Doctoral Programmes in the Energy Field:** 541
- **Master Programmes in the Energy Field:** 832
EPUE - University Interest in European Energy Research Alliance (SET-Plan)

EPUE 2009 Questionnaire to EUA Membership

Responses received until 05/11/2010
Total number of EUA respondent universities: 148

Marine Energy 39%
Materials for Nuclear 43%
Clean Coal – CO2 storage 45%
Clean Coal – other aspects... 46%
Clean Coal – CO2 capturing 53%
Geothermal Energy 54%
Concentrated Solar Power 63%
Fuel Cells 69%
Wind Energy 72%
Electric power storage... 73%
Transmission and... 73%
BioFuels 78%
Solar Photovoltaic 83%

* Normalised data based on respondent institutions interest for each of the above areas expressed on an arbitrary scale of 1 to 5
EPUE - Funding Sources of total budget devoted to energy research

- **Internal university budget allocation** (26%)
- **External National/Regional competitive public funding sources** (38%)
- **External European competitive public funding sources** (10%)
- **Private funding sources: contract research with external partners (e.g. industry)** (20%)
- **Private funding sources: private foundations and other private competitive schemes** (6%)

**Total university research budgets**: 7 Billion €

**Total university energy-related research budgets**: 986 Million €
Cooperation between EERA and EUA-EPUE

- EUA-EPUE sees the EERA and its Joint Programmes as an important arena for cooperation in energy related research.
- For EERA to be the main arena for cooperation in energy research for Europe’s universities, it is necessary to build a relationship of trust and equal partnership between universities and other partners within EERA.
- For a cooperative structure it is necessary to develop:
  - Universities should have the opportunity to be part of governance structures within EERA and JPs as equal partners, and representation must reflect the parties’ contributions;
  - University partners/participants with significant contributions should be included in all programmes;
  - Universities should particularly have the opportunity to take leading positions in education and training initiatives, as well as in fields of basic science.
Conclusions

- Europe needs good energy related education to be available in all states and regions. Education of innovative candidates is best done in an environment of frontier research in cooperation with industrial partners.

- EUA-EPUE will act as a facilitator for universities’ contribution to and engagement in the EERA, SET Plan, and the “Europe 2020 Strategy”.

- EUA-EPUE will formulate policies for how this can be done, and present these to the EUA governing bodies.

- EUA-EPUE will seek to develop cooperation with all actors under the SET-Plan umbrella to contribute to Europe’s societal needs in the best possible way.

...9...
Vielen Dank für Ihre Aufmerksamkeit!

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<thead>
<tr>
<th>Country</th>
<th>Number of institutions per country</th>
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<tbody>
<tr>
<td>EU 27 and Associated Countries</td>
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**Total:** 148
EPUE - University Interest in European Energy Research Alliance (SET-Plan)

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Concentrated Solar Power
Fuel Cells
Wind Energy
Electric power storage...
Transmission and...
BioFuels
Solar Photovoltaic

39 %
43 %
45 %
46 %
53 %
54 %
63 %
69 %
72 %
73 %
73 %
78 %
83 %

* Normalised data based on respondent institutions interest for each of the above areas expressed on an arbitrary scale of 1 to 5
EPUE - Partnerships in Research Areas, Doctoral Programmes and Master Programmes

EPUE 2009 Questionnaire to EUA Membership
Responses received until 05/11/2010

Total number of EUA respondent universities: 148

- Single University - no external partners
  - Research Areas/Themes (1432): 2 %
  - Doctorate Programmes/Themes (541): 30 %
  - Master Programmes/Themes (832): 54 %

- University partnerships - no external partners
  - Research Areas/Themes (1432): 46 %
  - Doctorate Programmes/Themes (541): 38 %
  - Master Programmes/Themes (832): 26 %

- University(ies) + external partner(s)*
  - Research Areas/Themes (1432): 52 %
  - Doctorate Programmes/Themes (541): 32 %
  - Master Programmes/Themes (832): 20 %

* External partner: Industry/Enterprise partners, non-university research institution partners, governments (national, regional), Research and Technology Organisations (RTOs) etc.
EPUE - Knowledge Areas in Research, Doctorate and Master Programmes

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Research Areas/Themes (1432) Doctorate Programmes/Themes (541) Master Programmes/Themes (832)

- **ESSH**: Economics, Social Sciences and Humanities
- **BML**: BioScience, Medical/Life Sciences
- **SET**: Science, Engineering and Technology

- **ESSH**: 12% (6%), 10% (7%), 8% (4%)
- **BML**: 82% (83%), 83% (88%), 88%
- **SET**: 6%, 7%, 4%
EPUE - Partnerships with external partners

- Collaborations involving one university and external partner(s)*
  - Research Areas/Themes (1432): 34%
  - Doctorate Programmes/Themes (541): 36%
  - Master Programmes/Themes (832): 46%

- Collaborations involving several universities and external partner(s)*
  - Research Areas/Themes (1432): 66%
  - Doctorate Programmes/Themes (541): 64%
  - Master Programmes/Themes (832): 54%

*External partners: Industry/Enterprise partners, non-university research institution partners, governments (national, regional), Research and Technology Organisations (RTOs) etc.
EPUE - Financial Attributions to Energy-related Research

Proportions of institutions devoting:
- Between 0 and 10% (54% of respondents)
- Between 10 and 20% (19% of respondents)
- Between 20 and 30% (9% of respondents)
- More than 30% (19% of respondents)

of overall university research budget.