



UNIVERSITIES IN THE SET-PLAN

UNI-SET - Mobilising the research, innovation and educational capacities of Europe's universities in the SET-Plan

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H2020 Update Workshop, 2 December 2015, Brussels



This project has received funding from the European Union under the Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 609838.





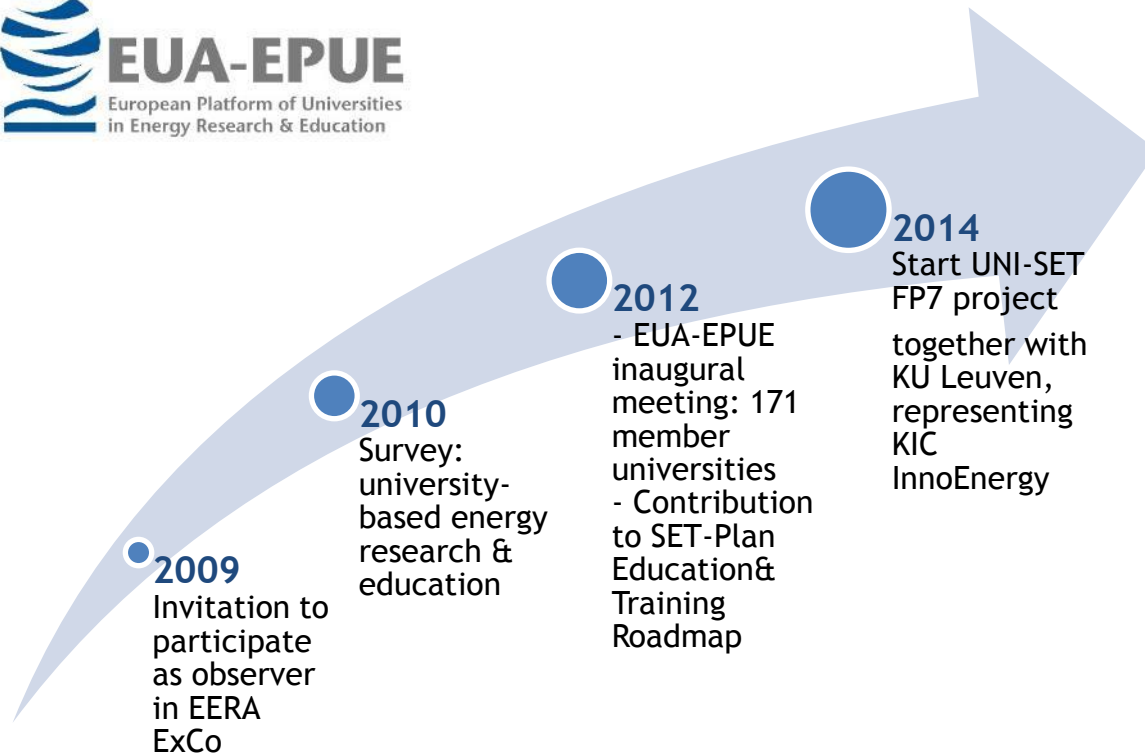
The European University Association (EUA)

- EUA acts as an independent stakeholder for Europe's Universities
- Based in Brussels as a non-governmental membership organisation
- EUA membership represents 34 European Rectors' Conferences and over 850 individual research based higher education institutions across 46 countries
- Dual-fold role:
 - I. providing a forum for debate and mutual-learning through conferences and workshops, projects and specific services for the membership, and
 - II. bringing empirical evidence from universities' experiences and activities across their missions to inform the policy-making process in developing new instruments that help their strategic development and enhance their performance in addressing social, economic and civil society needs and goals.

The EUA-EPUE



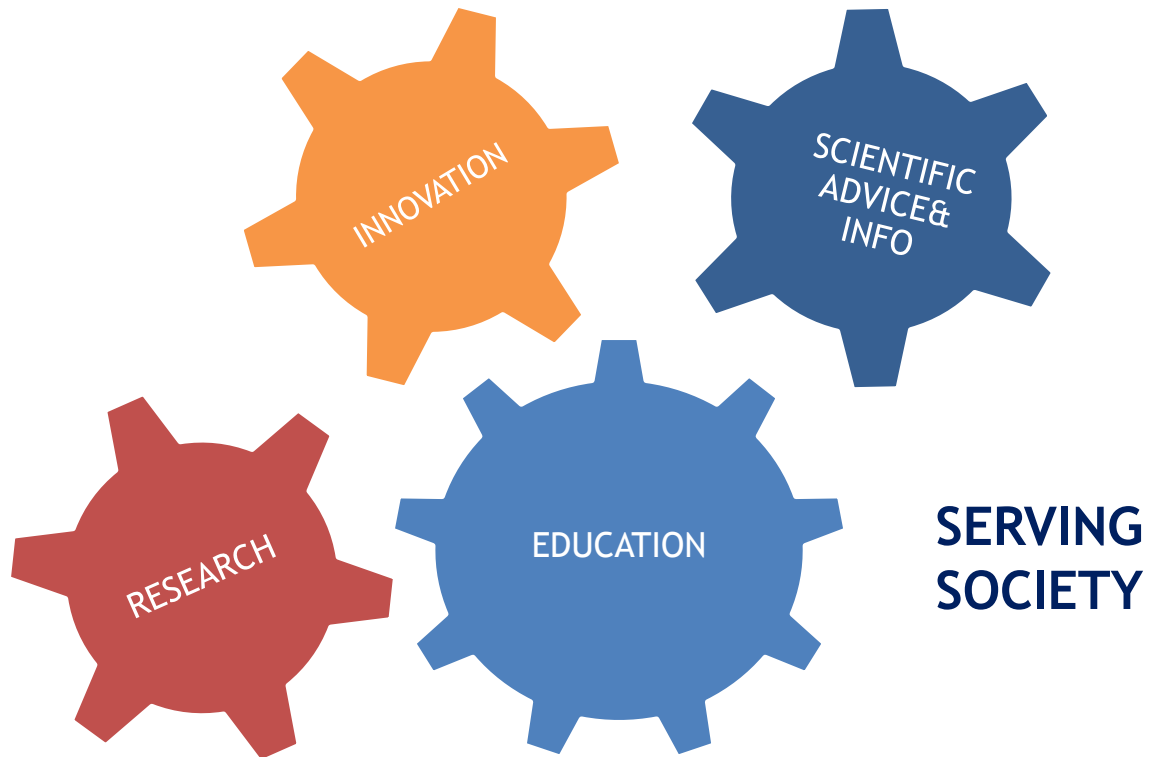
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The challenges to realise the EU energy objectives

- Research breakthroughs that can
 - I. improve the competitiveness of existing technologies
 - II. become the basis for innovations that offer new solutions
 - III. enable the required societal change
- Upgrade competencies in the existing work force to adopt new technologies for the overall benefit of society
- Develop new human talent that can strengthen the innovation processes
- Create scientific evidence-based policy-making
- Inform and engage civil society

The role of universities



The UNI-SET project

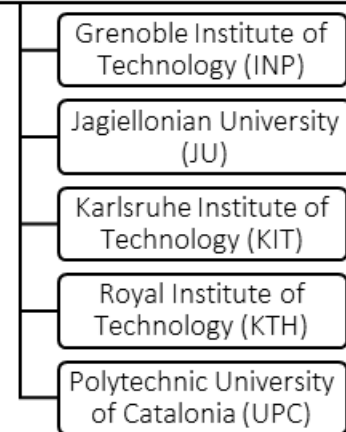
- **Duration:** Sept. 2014 - Aug. 2017
- **Consortium:**
 - ✓ **European University Association**, main beneficiary/coordinator (80 % share)
 - ✓ **KU Leuven** (project partner) representing the universities in KIC InnoEnergy (20 % share)



- **Funding:** European Union, as an **FP7** Coordination and Support Action



Third Party Consortium



KIC InnoEnergy in UNI-SET



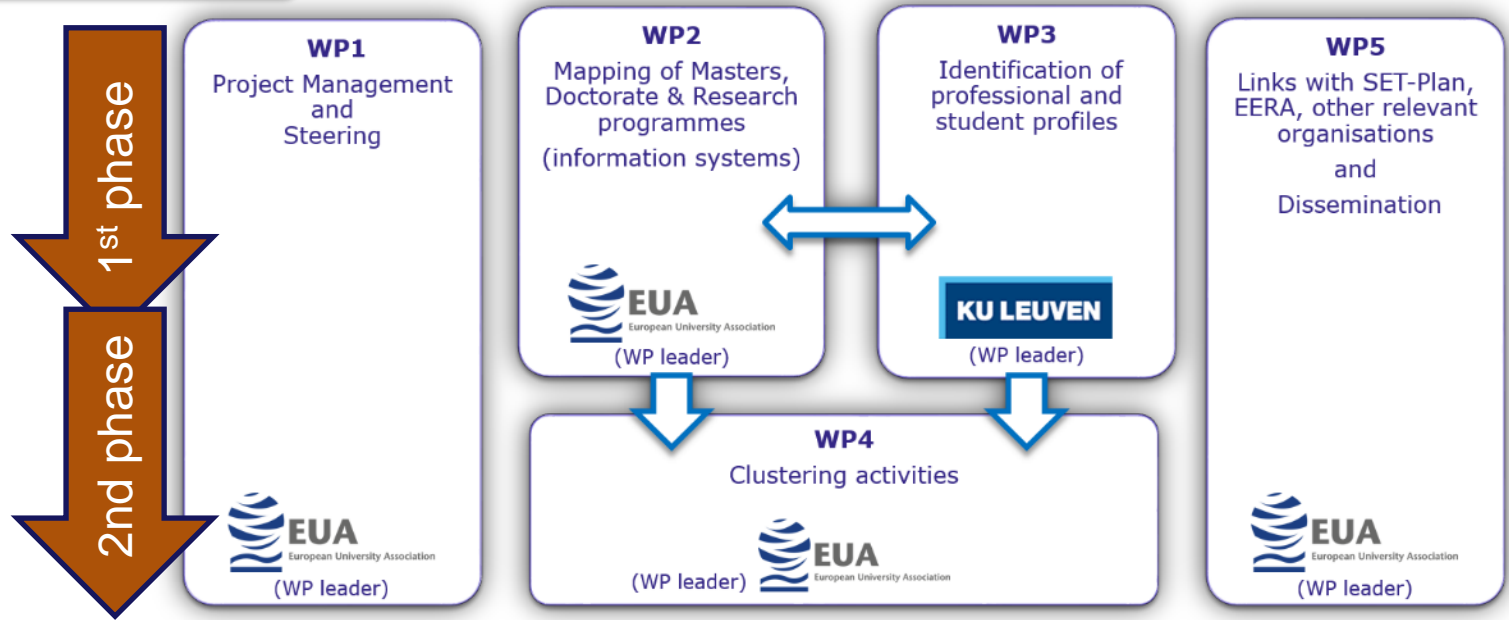
Objectives of UNI-SET

- **Strengthen strategic basic research** in Europe's universities – “use-inspired” basic research in energy
- Build bridges between **basic research and innovation**
- Enhance the **contribution of universities** in the SET-Plan at EU policy level
- **Integrate** education, research and innovation activities
- **Stimulate** cross-national Master, Doctorate and Research programmes
- Foster **multidisciplinary research** in areas such as system integration and socio-economic aspects

The image displays six brochures related to the UNI-SET project. The top row contains three brochures: 'Project partners' (listing EUA, KU Leuven, and other partners), 'Questions and further information' (providing contact details for EUA), and 'Mobilising the research, innovation and educational capacities of Europe's universities in the SET-Plan'. The bottom row contains three brochures: 'UNI-SET at a glance' (overview of the project), 'Objectives' (detailed goals and activities), and 'Activities' (specific implementation steps).

UNI-SET: Work programme

Total of 36 months
09/2014 - 08/2017





UNI-SET building blocks

- **The UNI-SET Universities Survey:** gather data on Master, Doctorate and Research programmes (number of programmes, students, disciplines, SET-Plan areas, etc.)
- **The European Atlas of Universities in Energy Research & Education:** develop online maps of university Master and Doctorate programmes, and research activities in the energy field
- **The UNI-SET Employers Survey:** identify skills and professional profiles required in the energy sector
- **The UNI-SET Energy Clustering Events** to:
 - ✓ provide a basis for discussing further development of energy-related curricula and study programmes on the Master and Doctorate level
 - ✓ Convene a critical mass of research capacities for new collaborative and multidisciplinary research activities across Europe.

UNI-SET Universities Survey

- URL: <http://universities.uni-set.eu>
- Covering the entire spectrum of disciplines: from Mathematics, Engineering and Technology to Economy, Social Sciences and Humanities and Arts
- 1st phase: 7 April 2015 – 31 July 2015
2nd phase: **OPEN until 15 December 2015**
- 192 university registrations by 18/11/2015



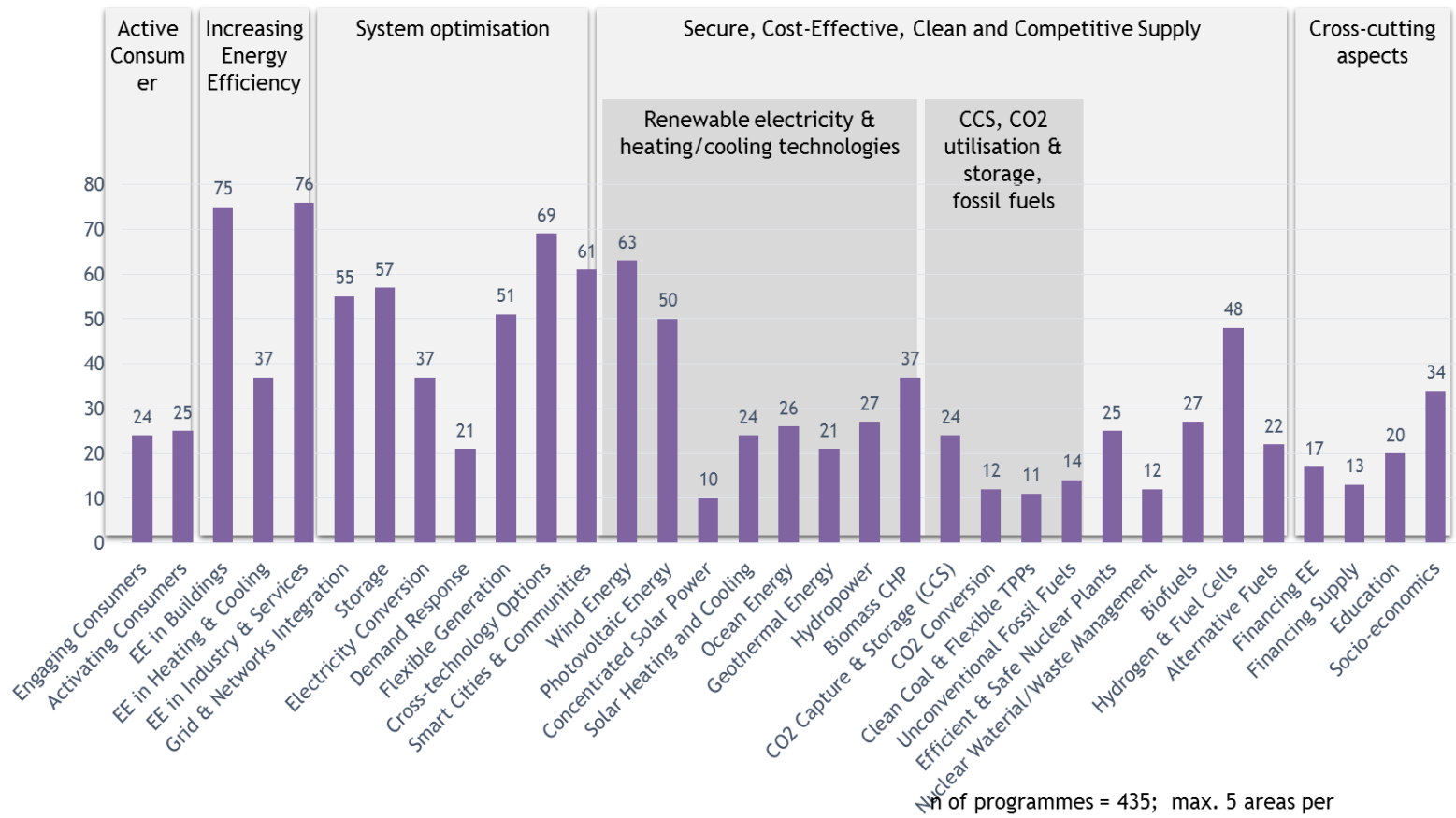


Why should your university participate?

Should your university offer Master and Doctorate Programmes and perform research in the energy field, or plan to develop such activities in the future, we strongly encourage you to participate, as this is a unique opportunity to:

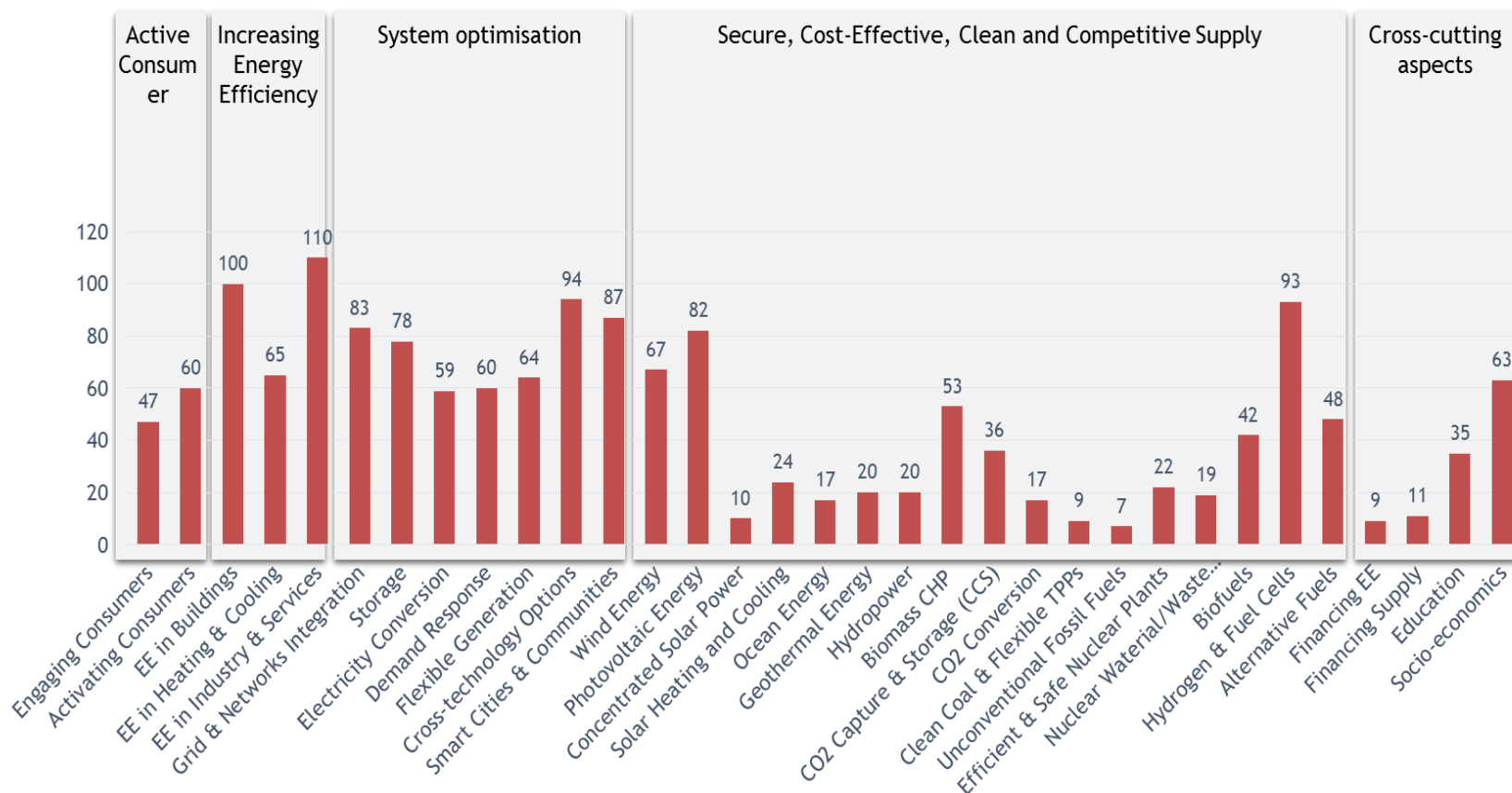
- **Have your energy-related Master, Doctorate and Research Programmes** clearly displayed on up-to-date and interactive online maps;
- **Attract potential students and researchers;**
- **Identify, and be identified by, other universities and stakeholders (business, research organisations, etc.)** to find expertise and opportunities for research and education collaboration;
- **Identify opportunities to create multidisciplinary teams;**
- **Have a central point of information on your institution's energy-related activities;**
- **Strengthen the voice of Europe's universities** in the energy field to attract more funding opportunities and to advocate universities roles in tackling the energy challenge;
- **Participate in the events, the 'UNI-SET Clustering Events'**, which will take place during 2016 and 2017 across Europe;
- Be part of an exceptional project of **strategic relevance** for the university sector

UNIVERSITIES - MASTER PROGRAMMES IN SET-PLAN



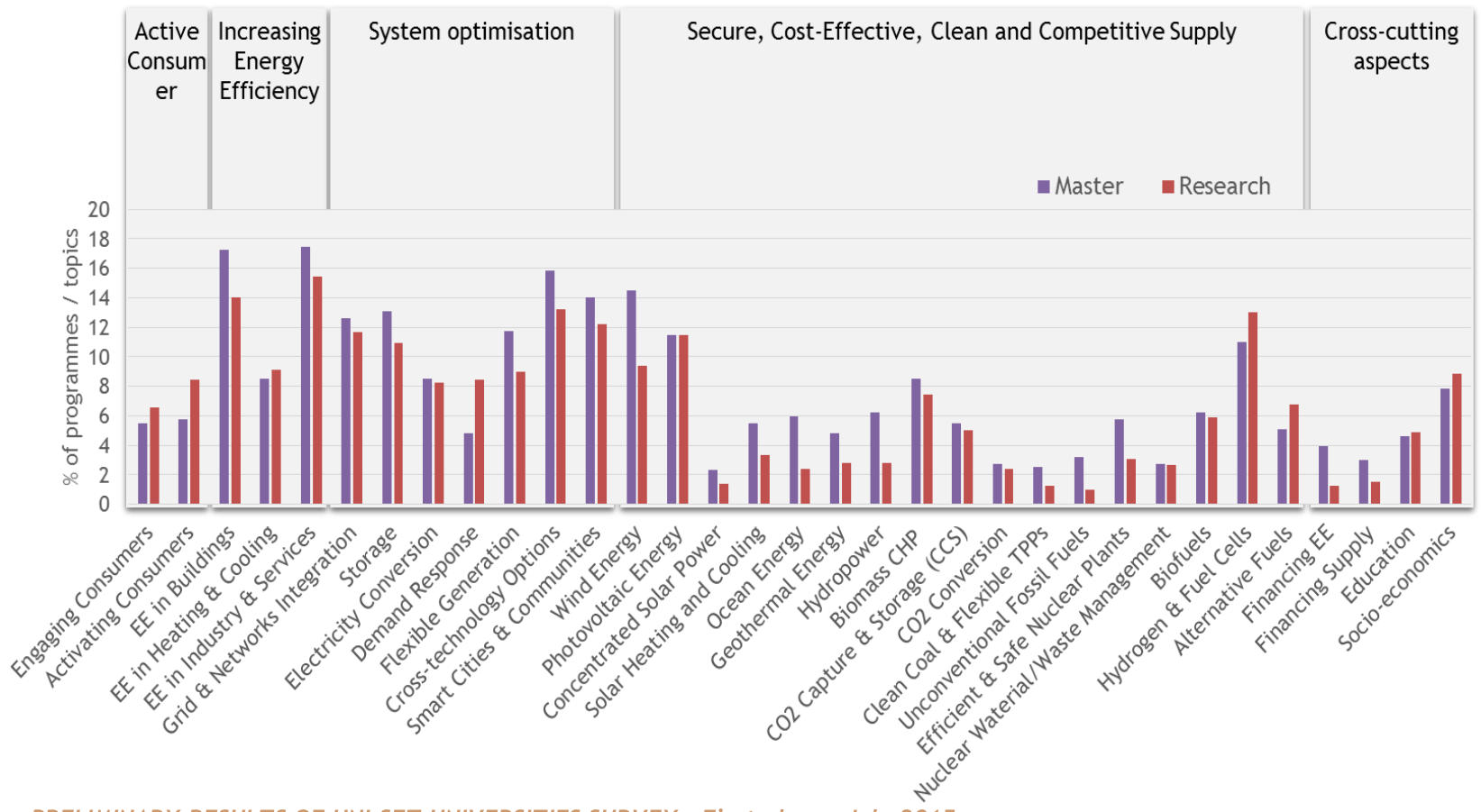
N of programmes = 435; max. 5 areas per

UNIVERSITIES - RESEARCH PROGRAMMES IN SET-PLAN



n of programmes = 713; max. 5 SET-Plan areas per programme

UNIVERSITIES LINKING RESEARCH & EDUCATION IN SET-PLAN



PRELIMINARY RESULTS OF UNI-SET UNIVERSITIES SURVEY - First phase, July 2015

THE EUROPEAN ATLAS OF UNIVERSITIES IN ENERGY RESEARCH & EDUCATION

Put your university
on the map!



Go to <http://universities.uni-set.eu> and register your university.

The survey will be online until **15 December 2015**.



THE EUROPEAN ATLAS OF UNIVERSITIES IN ENERGY EDUCATION

<http://atlas.uni-set.eu>

For more information go to www.uni-set.eu

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@uniset_fp7

Master programmes

The screenshot shows the website interface for the European Atlas of Universities in Energy Education. At the top, there is a navigation menu with links for HOME, PROJECT, NEWS, ATLAS, SURVEYS, EVENTS, RESOURCES, CONTACT, and LOGIN. Below the navigation is a search bar. The main heading is "European Atlas of Universities in Energy Education". A sub-heading reads "Browse below the European Atlas of Universities in Energy Education, containing information about several hundred Master programmes offered at European universities. You can search for specific programmes by filtering the activities in specific Fields of Education and Training (ISCED-F 2013) and the different areas of the SET-Plan. (Beta version optimised for Mozilla Firefox and Google Chrome)". A button labeled "Browse Energy Research Programmes" is visible. The main content area is titled "Master Programmes in Energy" and features a map of Europe with various markers. A sidebar on the left contains a search bar, a country filter, and filters for "Field of Education & Training" and "SET-Plan Area". At the bottom of the map area, there are two summary boxes: "# Participants found: 92" and "# Countries: 28".

...17...



THE EUROPEAN ATLAS OF UNIVERSITIES IN ENERGY RESEARCH

<http://atlas.uni-set.eu>

For more information go to

www.uni-set.eu

uni-set@eua.be

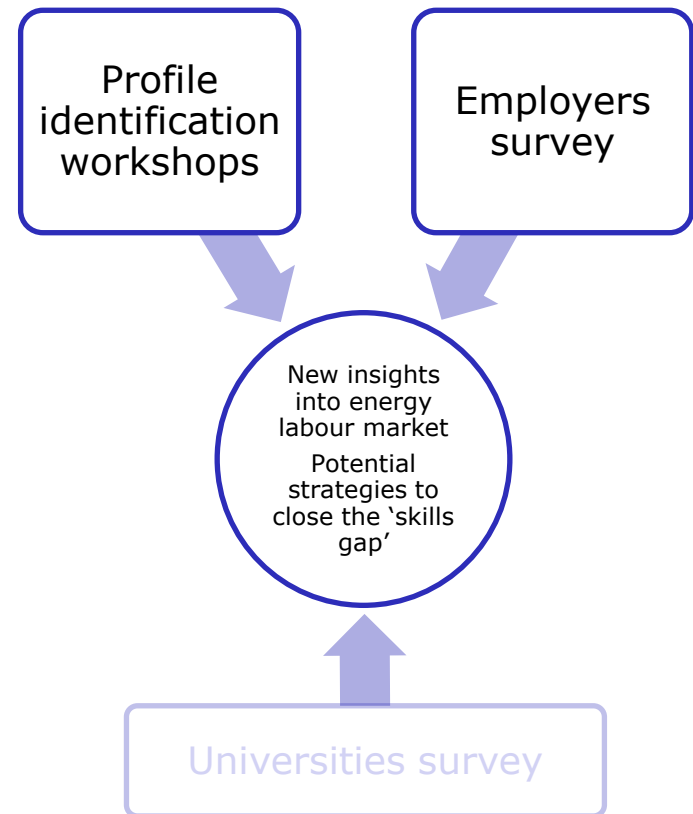
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Research topics

The screenshot shows the website interface for the European Atlas of Universities in Energy Research. At the top, there is a navigation menu with links for HOME, PROJECT, NEWS, ATLAS, SURVEYS, EVENTS, RESOURCES, CONTACT, and LOGIN. Below the navigation is a search bar. The main heading is "European Atlas of Universities in Energy Research". A sub-heading reads "Browse below the European Atlas of Universities in Energy Research, containing information about several hundred research programmes conducted at European universities. You can search for specific programmes by filtering the activities in specific Fields of Science and Technology (UNESCO) and the different areas of the SET-Plan. (Beta version optimised for Mozilla Firefox and Google Chrome)." There is a button labeled "Browse Education (Master) Programmes in Energy". Below this is a section titled "Research Topics in the Field of Energy" with "MAP VIEW" and "LIST VIEW" options. A map of Europe is displayed with various countries labeled and marked with green and blue icons representing research topics. A sidebar on the left contains a search bar, a country filter, and options to filter by Field of Science & Technology and SET-Plan Area.

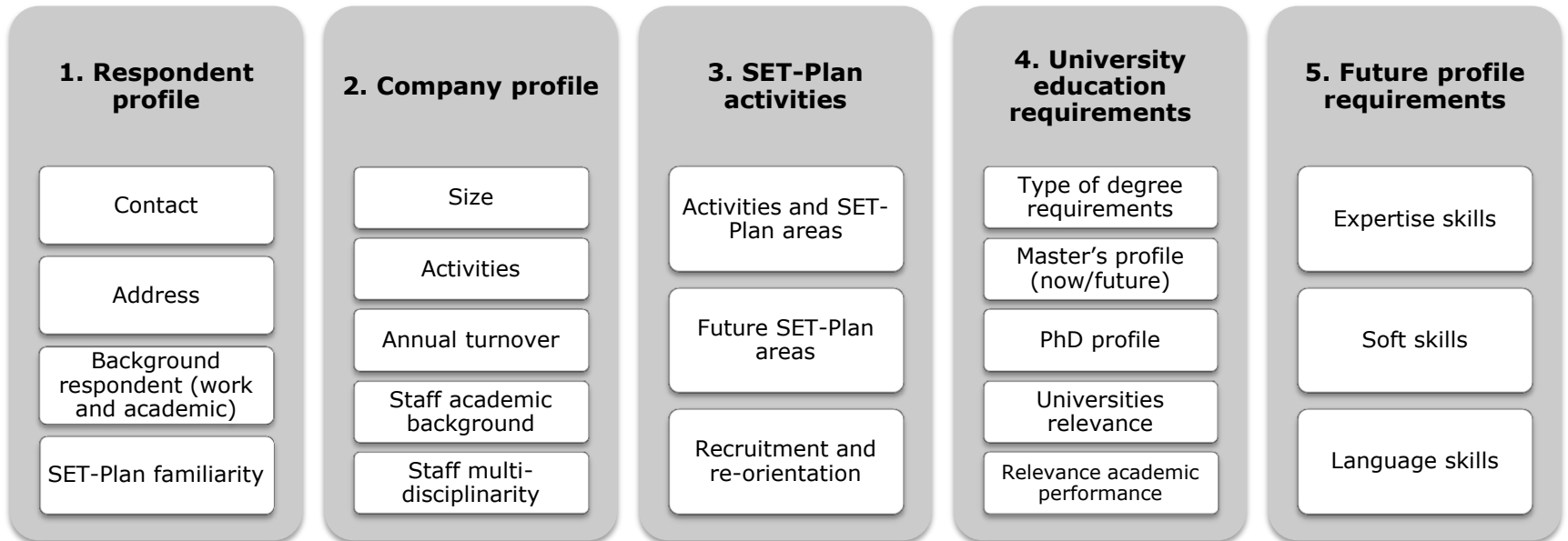
Bringing in the voice of energy sector employers

- Identify skills and professional profiles in the energy field
- Taken together with the Universities Survey, UNI-SET will provide unique insights into current labour market requirements and education offered at universities



The UNI-SET Employers Survey

- URL: <http://employers.uni-set.eu>
- Web-based survey send to contacts of KIC InnoEnergy
- Duration: 7 August 2015 – 31 December 2015





Why should your organisation or company participate?

Participation in the 'UNI-SET Employers Survey' is an opportunity for organisations dealing with energy challenges in Europe to:

- Get involved in **defining the future professional profiles** required to meet the 2030 goals of the SET-Plan;
- Contribute to **improve the Master and Doctorate educational programmes** to better meet the future profile requirements of the European energy labour market;
- Stimulate cross-national Master, Doctorate and Research programmes, and to foster multidisciplinary profiles;
- **Identify required trainings for current staff** to meet the future challenges in the energy sector;
- Foster the **integration of education, research and business/innovation activities.**

UNI-SET Professional Profile Identification Workshops

- A series of Professional Profile Identification Workshops held at different offices of KIC InnoEnergy
 - ✓ 19 May 2015, Leuven, Belgium – Organiser: KU Leuven
 - ✓ 18 June 2015, Lyon, France – Organiser: Grenoble Institute of Technology INP
 - ✓ 1 October 2015, Barcelona, Spain – Organiser: Universitat Politecnica de Catalunya
 - ✓ 5 October 2015, Frankfurt, Germany – Organiser: Karlsruhe Institute of Technology
 - ✓ 20 November 2015, Krakow, Poland – Organiser: Jagiellonian University
 - ✓ 26 November 2015, Stockholm, Sweden – Organiser: KTH Royal Institute of Technology, Stockholm
- An additional workshop was organised on 5 November 2015, in Vienna, Austria, during the European Utility Week.



UNI-SET Energy Clustering Events

• Objectives

- ✓ Foster cooperation between European universities and between universities and other energy stakeholders
- ✓ Produce a Roadmap for universities to develop new and/or multidisciplinary approaches in Master, Doctorate and Research programmes
- ✓ Coordinate policy input to SET-Plan and Framework Programme

• Targeted audiences:

- ✓ European university community;
- ✓ Other research and innovation actors in the European Research Area (ERA);
- ✓ KIC InnoEnergy partners;
- ✓ SET-Plan stakeholders, including the European Energy Research Alliance (EERA); the European Industrial Initiative (EII) partners; and major networks in the energy field;
- ✓ European Institutions: European Commission, European Parliament.

#	Date	Host University
1	24-26 February 2016	Norwegian University of Science and Technology (NTNU)
2	September 2016	Politecnico di Torino
3	November 2016	Universitatea Politehnica din Bucuresti
4	March 2017	Imperial College
5	May 2017	KU Leuven

1st UNI-SET Energy Clustering Event

- **Title:** “Addressing the human resource challenge to build the future energy system”
- **Date:** 24-26 February 2016
- **Location:** Norwegian University of Science and Technology (NTNU), Trondheim, Norway
- **Objectives:**
 - ✓ Set the stage on how universities can enhance their contribution towards the future low-carbon energy society
 - ✓ Offer insights into innovative programmes and approaches from a multidisciplinary perspective
 - ✓ Start developing a roadmap for universities in the future energy society
 - ✓ Strengthen inter-university cooperation and thus the voice of universities in EU energy policy developments
 - ✓ Make visible the substantial contribution of universities in implementing the European Energy Union



Expected impact of UNI-SET (1/2)

- More universities to educate candidates for the industry and the public sector
 - ✓ programmes with curricula informed with recent research-based knowledge
 - ✓ engaging with industry and research institutes
- Education programmes for new multidisciplinary competence profiles prepared to address
 - ✓ energy system integration
 - ✓ societal aspects related to the energy system transition
- University networks engaging in cooperation in long term 'use-inspired' basic research for energy



Expected impact of UNI-SET (2/2)

- Strengthening cooperation with industrial partners
- Cooperation with the European Energy Research Alliance (EERA)
- Coordination of input for policy development and external dialogues
- Advocacy and dialogue with the European Commission and other European policy stakeholders
- Assisting development of international (outside-EU) cooperation

Thank you for your attention!

For more information go to



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