

Welcome to the 17th Edition of the eseia Newsletter!



Brigitte
Hasewend

Dear eseia members, colleagues and friends,

*I am pleased to present this **autumn edition** of the eseia Newsletter.*

*Following hard months of team work, eseia was successful in attracting EC funding for **two more projects**, namely Phoenix and SuPreme. Together with BioEnergyTrain this makes three funded Horizon2020 projects in 2015 worth a **total of € 6 Mio**.*

*Of course, the hunt for funding will continue. Read more about **GoMars** and **SEEV** which were recently submitted. Either you were involved yourself or you will be tempted to participate next time. Try working with the eseia Team, it will certainly be worth your while.*

*In order for you to get a real good overview of 2016 eseia policy initiatives, EC projects, funding opportunities and events, consider joining us for the eseia General Assembly in **Brussels, 2 December**. Registration will close shortly (view link inside this Newsletter).*

Enjoy reading!

Brigitte Hasewend
Director of eseia

Contents

1. News from eseia 2
2. News from eseia Members 4
3. eseia Projects 7
4. European Policy News 10
5. Events 2015 11

1. News from eseia

EC Funding for Two New Projects

eseia is pleased to announce its forthcoming projects:

Phoenix (H2020-MSCA-RISE-2015)

Status: EC Grant Agreement preparation, Start: December 2015

Led by eseia the four-year project is an international, interdisciplinary, cross-sectorial project, bringing together a total of 14 EU and 2 non-EU (Armenia and Belarus) countries. The project has the following three main objectives:

- To address identified knowledge gaps through research collaboration and by clearly identifying the technology and knowledge chain for the development and leverage of European expertise.
- To bridge the gap between industrial innovation and education in order to enable the market up-take of innovative solutions for SET-Plan measures.
- To create a network of integrated research and industrial infrastructures and develop programmes for collaborative post-graduate research at these installations.



Total score: 14
Excellence: 4.50
Impact: 4.80
Implementation: 4.70

Secondments of a total of 62 (early stage and experienced) researchers from 11 countries for a total of 306 PM will be realised with the project. The project amounts to € 1.4 Mio with 1/3 dedicated for training. Overall seven eseia members are part of the Consortium: EAS, BAV, BRP, LNEG, TU Graz, UTwente and UNIZAG. Phoenix will kick-off in Brussels on 4th December back to back with eseia Business meetings, BET project and H2020 Update.

SuPREME (H2020-TWINN-2015)

Status: EC Grant Agreement preparation, Start: November 2015

General Objective: Twinning for knowledge transfer in integrating energy technologies to create a long-lasting and effective partnership that will have a very significant impact on Poland's energy systems infrastructure.

Specific objectives:

- To understand Poland's unique energy requirements and develop a technical transition plan coherent with EU and national guidelines and targets.
- To create sets of technical scenarios optimised with respect to the management of production and consumption of different energy forms in energy systems able to be easily customised for flexible local or regional development within Poland. To transfer all needed necessary knowledge for IMP-PAN to be able to lead Poland in energy system integration techniques and to greatly enhance the research capacity of IMP-PAN and its staff.
- To develop a Europe-wide network of relationships with key research groups and stakeholders in the field of energy systems integration to address networking gaps and deficiencies between the research institutions of Poland and internationally-leading counterparts at the EU level.



Total score: 14
Excellence: 5.00
Impact: 4.50
Implementation: 4.50

The project amounts to more than € 1 Mio. eseia will be leader on the dissemination and exploitation WP and will also provide expert knowledge through its' WG 2 on Smart Cities and Regions and its Education and Training Programme (eseia ETP).

eseia International Summer School 2015 Review

A fine group of graduate students and young professionals from five European countries, two EaP countries and Russia took part at the 2015 edition of the eseia International Summer School on *Integrating Bioresources and Waste in Urban and Rural Energy Systems*, held from 13 to the 24 July 2015, in Lisbon, Portugal. The event was locally organised by LNEG and the New University of Lisbon, and was hosted in the Faculty of Sciences and Technologies. The Summer School aimed at offering participants a systems perspective on smart solutions and innovations to the bioenergy challenge for cities and communities.



The students have highly ranked the summer school in their evaluation. The ISS 2015 class appreciated not only the professional visits, but also the strong mix of interactive lectures completed by workshops, discussions and project work. We would like to express our sincere gratitude to Teresa Ponce de Leão, President of LNEG, for making this event possible!

Find out more about our education and training opportunities on <http://etp.eseia.eu/>

eseia TUGraz International Conference - Call for Papers has Been Extended



The CALL for PAPERS is still open for the 2nd eseia International conference that will be hosted by TU Graz, 4-6 April 2016. The conference Smart and Green Transitions in Cities & Regions is part of the bi-annual eseia conference series, convening top innovators from academia, business and public sector to discuss three topics in three dedicated tracks, namely **Brown-field development, Metropolitan regions, and Green Urban Mobility**. The 2016 conference will explore urban development and sustainable mobility technologies subject to limited resources.

Call for papers deadline: 15 January 2016. eseia experts can submit their paper on the following [link](#).

eseia Feedback Questionnaire

In order to improve the eseia Services to members, members are invited to fill out short feed-back forms made available by the eseia Secretariat online. **Please follow this [link](#) and give us your opinion. It will only take five minutes of your time.**

2. News from eseia Members

As you know this section of the eseia Newsletter is dedicated to presenting news from the members. In this edition we focus on what eseia members have achieved in the field of sustainable energy with focus on mobility, society and architecture.

Smart cities initiatives

10 - 12 February 2016: The 14th Symposium Energy Innovation at TU Graz

Location: Graz, Austria



The theme of the 14th Symposium Energy Innovation at TU Graz is "Energy for our Europe". TUGraz invite you to submit an abstract until 1 December 2015. The previous

Symposium gathered 222 speakers and a total of over 690 participants. For more detailed information please refer to the [page of the event](#).

INP PAN: Inauguration of Jabłonna Centre for Energy Conversion and Renewable Resources



The new Centre of the Szewalski Institute of Fluid-Flow Machinery (IMP PAN) was inaugurated on the 17th September, 2015. Located in Jabłonna, the centre is the outer division of IMP PAN in Gdańsk and has the most modern research complex dealing with the use of renewable energy in Poland. One of the main objectives of the centre is to conduct research on strategies in the development of renewable resources, unconventional energy sources, biofuels, energy storage, ecological effects of energy conversion and implementation of new technologies. The research infrastructure consists of five laboratories which are complementing each other on: Solar Technology, Micro-Cogeneration Plants and Ecological Boilers, Wind Energy, Safety Engineering for Energy Generation, and Integrated Plus-Energy. [Find out more](#).

IMP-PAN in Gdansk is also the initiator of the establishment of South Baltic Centre of Offshore Wind Energy "BALTECO". Purpose of the Centre is to become a collaboration platform for the research institutions, industry, public administration and other organisations supporting development of the Offshore Wind Energy in the Baltic Sea Region. This international initiative is funded within Seed Money Facility under INTERREG South Baltic 2014-2020 programme. The project contributes to the EU Strategy for the Baltic Sea Region priority "Energy".



Awards and recognitions

State Prize for the Energy-plus Office Tower of Vienna University of Technology

The State Prize for Environmental and Energy Technology is awarded for the fourth time in 2015. The winning project in the category "Research and Innovation" is the new energy-plus office tower of the Vienna University of Technology, considered as the "most amazing building in the world" by Prof. Thomas Bednar from the Institute for Building Construction and Technology TU Vienna. The Plus-Energy Building, opened in November 2014 is an unusual in many ways. See the video [here](#).



Solar Team Twente with Silver Medal in the World Solar Challenge



The solar car *Red One* of UTwente finished second on the 3000km Australian race trail with 3:35 minutes difference from the winner Delft. Over fifty other international participants competed at this event. This year the UTwente racing time was improved with almost 4 hours compared to 2013. During half of the race the Red One was in leading position with average speed of 90 km/h. With a self-conceived and developed system UTwente's solar car collects additional energy when the solar array is

in shadow. The system is called SABINE, which stands for 'Solar Array Balancing Interface Not Expected'. Find out more on worldsolarchallenge.org.

Online publications and courses

Karl Franzens University of Graz with MOOCs about "Graz - the Smartest City in Austria"



The smart city concept is presented in eight online lectures of Karl Franzens University of Graz (KFUG) with the aim of showing participants the city from different angles. Energy related topics can be found in the lectures on Architectural building culture (start: 21/10/2015), Smart urban development (start: 11/11/2015) and Sustainable mobility (start: 18/11/2015). Students can complete the online course that will be credited as an optional subject. After successful completion, participants will receive a certificate from the University of Graz. The MOOCs are designed

and realized by the KFUG team led by Dr. Michael Kopp from the Academy for New Media and Knowledge Transfer. Find out more on the platform www.imoox.at

TU Vienna Study Measures Energy Transition in Austria and Germany

A significant reduction in CO₂ emissions in the power and heat generation would be technically and economically feasible is the result of a new study by the Vienna University of Technology. By 2050, Europeans can save a large amount of CO₂ emissions, even without large storage capacity. The study shows that by 2050 between 76 and 90% of CO₂ emissions could be saved in the areas of electricity, heating and car traffic in Germany and Austria. The electro mobility might play an important role.

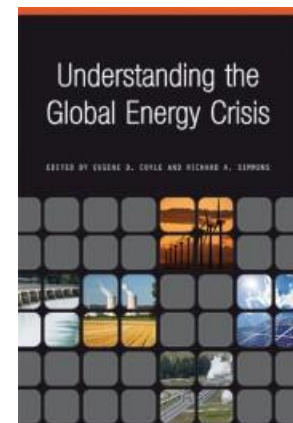
[Find out more.](#)



Focus on Solar Energy in *Understanding the Global Energy Crisis* by Brian Norton, president of DIT

Brian Norton from DIT has contributed in Chapter 5 of the *Understanding the Global Energy Crisis* book published by Purdue University. The chapter provides a brief overview of enabling solar power technologies and policies in the context of recent world markets, and factors that are likely to influence future trends. The role of nanotechnology is explored and its significant implications for energy conversion technologies in the future. Differences between information and energy devices are highlighted followed by an in-depth focus on photovoltaic and thermoelectric devices. A review is carried out of advances in nano-engineered thermoelectric materials, module designs, and topping cycle applications that can offer significant cost reductions. The chapter concludes with a brief discussion of future opportunities for nanotechnology in energy conversion, storage, and conservation.

Read the book [here](#).



New book on *Innovating for Sustainable Development* by Yoram Krozer, senior researcher at UTwente



Yoram Krozer from UTwente has published a book that explains how income growth and better environmental qualities go hand in hand. The book reviews the drivers and barriers to sustainable innovation on the basis of real-life cases and discusses why innovation-based income growth reduces environmental impacts and how the huge global markets for sustainable innovation are currently hampered by protectionist policies. The policies of the United States and European Union are compared with regard to the main barriers to and drivers of, the renewable energy business. You can view abstracts on the Springer [website](#).

3. eseia Projects

RUNNING PROJECTS NEWS

BET BioEnergyTrain - Focus on the Needs of Industry

22 July 2015: eseia Curriculum Development Workshop

Location: Lisbon, Portugal

The BioEnergyTrain project has continued its course into developing new Master programmes and professional formats in the field of Bioenergy. A result of the Lisbon workshop was the Curriculum Development Framework including an operational format for a MOOC platform for Biorefinery Engineering (BRE) and Bioresources Value Chain Management programmes. The framework will be available on the BET website.



Currently in the framework of the project a number of important activities are carried out. One is collection of needs from industry and regional players in terms of training, knowledge transfer and cooperation. A set of events is planned in Brussels in December where the project experts will meet to discuss the content, the

quality assurance standards and the regional and business dimension of the training and cooperation formats. The next important output of the project is planned for end of January and consist of a Report that establishes quality assurance and practice relevance standards and procedures.

Find out more about the project by registering on <http://www.bioenergytrain.eu>.

Visit our etp.eseia.eu to find more about next eseia events.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°656760

Ener2i – energy research to innovation: Reinforcing cooperation with Eastern Partnership countries on bridging the gap between energy research and energy innovation

Online lectures on energy and innovation issues

A set of online lectures on financing, green buildings, bioresources, and other innovation issues have been released by ZSI in the framework of the Ener2i project. Consult the online lectures by visiting ener2i.eu and etp.eseia.eu



1 – 2 October 2015: eseia ener2i Innovation Training Workshop and Brokerage Event

Location: Yerevan, Armenia



In October a workshop on Energy and Innovation, and a Brokerage Event were held in Yerevan in the framework of the ener2i project. Both ener2i events were embedded in the Sixth International Renewable and Clean Energy Conference and Exhibition (2-3 October 2015), which gathered around 150 participants from EU

Member States, Eastern Partnership (EaP), Central Asia, and other associated to Horizon 2020 countries. The main aim of the Innovation workshop was to provide state of the art information on energy and innovation issues as well as to facilitate the knowledge transfer, and to raise awareness of commercialisation instruments for research organisations, start-ups and SMEs, and innovation agencies. The following topics were covered: innovation in renewable energy and the situation in Germany, innovation policy, energy efficiency in housing, and bioresource utilisation for energy. The Brokerage Event gathered 45 participants and enhanced the cooperation between research organisations and businesses. [Find out more.](#)

8-10 September 2015: ener2i Study visit during the RAMIRAN Conference

Location: Hamburg, Germany

Candidates from Eastern Partnership countries got the opportunity to participate in the 16th International RAMIRAN Conference on waste utilization, held in Hamburg on 8-10 September. This year the Conference focused on “Rural-Urban symbiosis” closing the loop by linking rural production and urban consumption systems. In addition to the conference the following twinning activities were organised for participants: sustainability tour in the new part of Hamburg, visit of a biogas and composting facility, visit of an research eco-farm, manure processing workshop and an urban landscape workshop. More information is available on <http://ramiran2015.de/>



ener2i is funded by the European Union's FP7 Programme under grant agreement no 609532

PROPOSAL DEVELOPMENT UPDATE

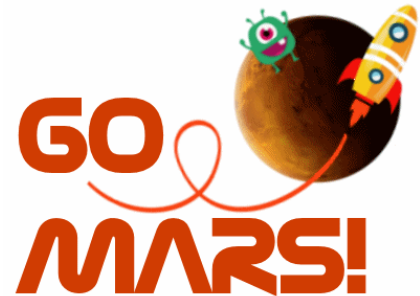
SEAC-2015-1: Innovative ways to make science education and scientific careers attractive to young people

Project title: GO MARS!

Deadline: 16-09-2015

Status: submitted

GO MARS has two basic goals: to interest children in STEM through the clever metaphor of living on Mars, with renewable energy, sustainable living and smart cities, and climate change and ecology orientation. The project plans to bring new learning methods to kids and educators to broaden and enrich the European educational landscape. Activities focus exclusively on children aged 8 to 13, especially engaging girls. The project de-emphasise electronic and online activities, and seek to focus on real-world, collaborative problem solving appropriate for the ages targeted. Two “GO MARS LABS” (one small flexible temporary environment in Vilnius, and a simulated outdoor Martian environment within the EXPO building in Ljubljana) will be created for students to visit and interact with, and will provide physical focus points for the programme.



Spanning two years with 12 partners, the GO MARS Coordination and Support Project will have real impacts across the EU. Overall six eseia members are part of the Consortium: TU Graz, DIT, STUBA, VGTU, LNEG and IMP-PAN.

H2020 GV-8-2015 Electric vehicles' enhanced performance and integration into the transport system and the grid

Project title: Seamless Energy for EVs (SEEV)

Deadline: 15-10-2015

Status: submitted

The Seamless Energy for EVs (SEEV) project will research and test the complete transformation chain for EVs across the passenger and logistic sectors, from BMS and vehicle performance optimisation to advances in EV user interfaces, routing, and integration with emerging energy grid microsystems, including renewable energy sources (RES). Across three years, nine partners in four EU countries will greatly surpass the state of the art by providing innovative, standardisable components for the radical, holistic, transformation of EV energy management systems to accommodate Europe's transition to “Efficient EV Urbanism”. Overall four eseia members are part of the Consortium: TU Graz, VGTU, UT and BRP-Powertrain.



4. European Policy News

The European Atlas of Universities in Energy Research & Education is now online

EUA presents the first European Atlas of Universities in Energy Research & Education, a compendium of European university-based Master, Doctorate and Research Programmes. The Atlas has been developed by the EUA European Platform of Universities in Energy Research & Education. [Find out more.](#)



Commission invests €16 billion in funding for research and innovation over next two years



The EC will invest almost €16 billion in research and innovation in the next two years under Horizon 2020, following a new WP for 2016-17 adopted in mid-October. The programme will support a range of cross-cutting initiatives. For Smart and Sustainable Cities a €232 million package will better integrate environmental, transport, energy and digital networks in EU's urban environments. [Find out more.](#)

The European Union's contribution to the 2030 Agenda

The 2030 Agenda for Sustainable Development sets out the global framework to eradicate poverty and achieve sustainable development by 2030. The EU is determined to fully implement the 2030 Agenda, across the range of its internal and external policies aligning its own policies and actions to the objectives of the Agenda. [Find out more.](#)

European Mobility Week 2015 towards the Paris Climate Conference in December 2015

EC's Mobility week was held in September, with events in over 2,000 European cities and towns. This initiative encourages innovative solutions for today's urban mobility challenges, which can contribute to the climate and decarbonisation objectives of the EU. Over eight thousand permanent measures have been implemented as a direct legacy of this initiative. [Find out more.](#)



EC (JRC) Report 'Trends in energy consumption and energy efficiency 2000 – 2012'

In October an Energy Report has been published outlining the trends in energy consumption and energy efficiency in EU-28. The report covers four areas of consumption: residential, tertiary, transport and industry. To download the report click [here](#).

How much does the EU spend in your country and on what? How does it compare to other countries and where does the money come from? [Find out](#) by using the new EC multimedia application.

Events 2015

eseia Upcoming events:

1 - 4 December 2015: eseia Business and project meetings

Location: Brussels, Belgium

- **General Assembly and Governing Council Meetings**
Main decision item is the eseia Work Programme and Budget for 2016
- **Ener2i EU Brokerage and eseia update on H2020**
Speakers from EC on:
 - Spreading Excellence and Widening Participation, Science with and for Society
 - Marie Skłodowska-Curie Research and Innovation Staff Exchange
 - COST Action
- **BET Events**
Curriculum Development Workshop
Professional Education Formats Workshop
External Advisory Board Meeting and Project Management Committee Meeting
More information on bioenergytrain.eu
- **Phoenix kick-off meeting**



Registration for the eseia upcoming events in December is mandatory. Register now [here](#).

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eseia Homepage

More information about eseia members
And activities can be found on our website
www.eseia.eu

eseia Education and Training Programme

More information about eseia courses and
activities can be found at:
www.etp.eseia.eu

eseia services:

- **Close contact** to the **European Commission** facilitated by our desk in Brussels, as well as contacts to funding agencies and thorough **know-how of funding programmes**.
- **Knowledge building** and **dissemination** through eseia projects, such as the eseia journal and EC-SET Plan Education and Training Initiative.
- **Long term contact** with **international** and **cross-sector organisations** working in the area of renewable energies.
- Support for **consortium building** and the **coordination and management** of large scale proposal preparation process.
- **Information sharing** through interactive workshops, business meetings and quarterly newsletters including news from the grapevine of EU policy regarding renewable energies.

eseia Newsletter Calendar 2015

Newsletter	Deadline sending input to eseia	Issue
18th Edition	15 December	23 December

*The eseia Secretariat is looking forward
to your inputs.*

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