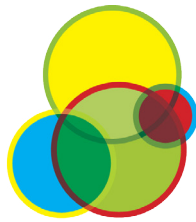


eseia



european sustainable energy
innovation alliance

Annual Report 2013

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‘ I am pleased to state that return on investment for eseia members has reached 70% ’

eseia Director
Brigitte Hasewend

Message from the President

eseia is striving to become the **premier innovation alliance in Europe for renewable energy systems**.

The eseia team continues to make good progress toward this vision via a balanced, forward-looking strategy that includes **seeking new partnerships internationally**, offering **more practical education and training**, and active participation of members in **shaping the European energy system by 2050**.

With its interdisciplinary and trans-sectorial expert membership of presently 120 experts Europe-wide, the **eseia Working Groups Bioresources, Smart Cities and Regions and Education and Training** are particularly well equipped to develop replicable energy systems. Together with its partners eseia will seek funding under the new Horizon2020 Program.

I am fully aware that the Alliance can only meet these challenges ahead by mobilizing the efforts of all of the eseia membership. Therefore, as eseia President, I wish to extend my sincere thanks to all of our members for making eseia such a success.

Graz, January 2014



eseia President, Harald Kainz

About eseia

eseia, the European Sustainable Energy Innovation Alliance, is an association of leading membership organisations based in a total of 16 European regions operating in the field of sustainable energy systems, from energy provision to energy consumption in research, teaching and innovation. The cross-sector membership of scientific, business and political partners is dedicated to advancing innovation to implement renewables and sustainable systems in Europe as well as on a global scale.



Aims:

- ▶ Advise and support businesses and regional decision-makers to reach their renewable energy goals for 2020 and beyond;
- ▶ Develop innovative RES concepts for implementation on a rapidly changing market;
- ▶ Close the knowledge gap by offering practice-oriented Education and Training in RES;
- ▶ Contribute to enable Europe to take the leading role as the most innovative region towards global sustainability and optimize Europe's position in competitive future markets.

Events

22 March 2013: Launch of the eseia Working Group Bioresources in *Brussels, Belgium*

5 – 8 May 2013: eseia business meetings back to back with the European SET-Plan Conference in *Dublin, Ireland*

26 June 2013: eseia Business Lunch on 'Bio Energy Transition from the Bottom', back to back with EUSEW in *Brussels, Belgium*

4 July 2013: Kick off meeting for The Green Heart of Styria project on bioresources in *Graz, Austria*

15- 28 July 2013: eseia International Summer School 2013 on 'Smart Metropolitan Regions of Tomorrow' at the Transilvania *University of Braşov in Romania*

17 July 2013: Launch of the WG 2 Smart Cities and Regions, in *Braşov, Romania*

12-13 September 2013: eseia participation in Energizing Europe conference in the Committee of the Regions, *Burgenland, Austria*

25 – 28 September 2013: eseia participation in SB13 – Sustainable Building Conference hosted by TU Graz in *Graz, Austria*

1 October 2013: Working Group Smart Cities and Regions meeting back to back with EEP13: "Enhancement of European International Cooperation and Eastern Partnership in R&D&" under the Lithuanian EC Presidency in *Vilnius, Lithuania*.

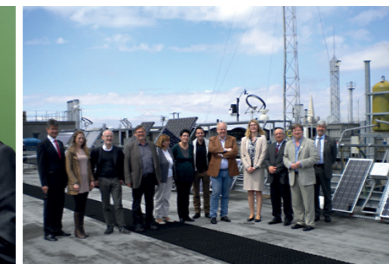
13 October 2013: Green Heart of Styria Bioresources project presentation at the Café Europa during the Open Days 2013 of the European Union in *Graz, Austria*

14 – 15 October 2013: Kick off meeting of the EC FP7 INCO Ener2i Project on Research to Innovation in *Vienna, Austria*

27 – 29 November 2013: iENERGY 2.0 Weiz-Gleisdorf project presentation during the Smart Cities Week 2013 in *Vienna, Austria*

27 November 2013: eseia Workshop on Horizon 2020 in *Brussels, Belgium*

28 November 2013: International Workshop for European Regional Actors on the topic of the Regional Cooperation on Rational Use of Bioresources in *Brussels, Belgium*.



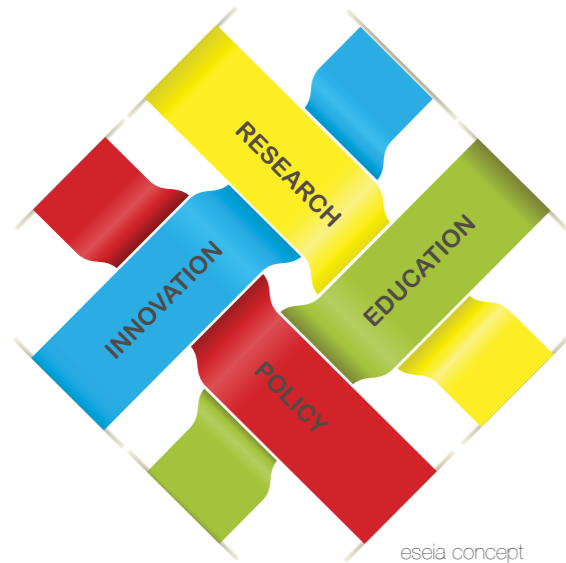
Members

The combined competencies of eseia members provide a valuable knowledge pool for a **one stop-shop** for almost any sustainable energy innovation challenge from renewable resources to consumption. Each partner acts as a **focal point** in their particular national, regional, and topical context.

Members of eseia are:

- ▶ leading European innovation actors from business, research, education and policy,
- ▶ that pursue the goal of creating a **new generation of renewable energy systems.**

eseia is integrating the efforts of its members across sectors.



Business Members

Our eseia industrial membership of more than 170 companies is currently concentrated in Central Europe. eseia's goal is to enlarge business membership to cover all European countries.

AUSTRIA

ECO World Styria which is a cluster of 170 Green Tech companies focusing on renewables and especially in the strength fields of biomass, solar energy, mass flow and water/wastewater, energy efficiency and more.



K-Wood GmbH which is a cluster from the bio based industry sector including 24 partners.



BRP Powertrain in the field of sustainable mobility and its Regional Innovation Center which focuses on the development of more efficient drive technologies and eco-performing technology for BRP products.



GERMANY

BAV which is a waste company based in North-Rhine Westphalia and operator of the landfill Leppe

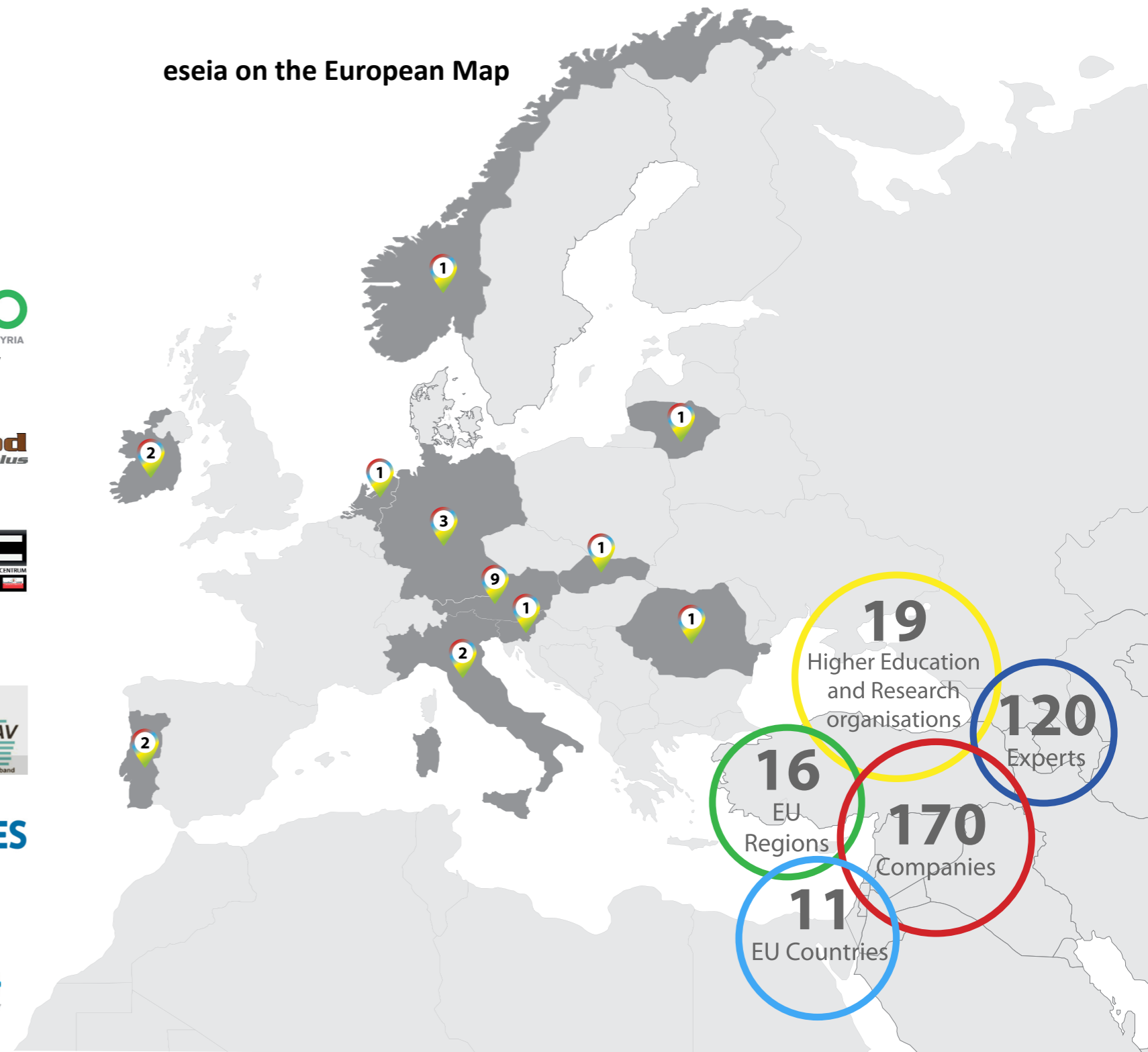


SLOVENIA

ELES which has the exclusive right to perform the public service of the transmission network system operator in Slovenia. ELES has joined the alliance as a new member in 2013.



eseia on the European Map



Working Groups

The eseia Working Groups aim to provide innovation platforms to encourage the exchange of information on new **sustainable energy systems and their implementation**.

eseia supports three Working Groups including a total of **120 eseia experts**. The eseia WGs' goal is to set the agenda by defining innovation challenges in the following three eseia focus areas:

- ▶ **eseia WG Bioresources** is dedicated to setting the agenda for the most appropriate use of bioresources. In particular, the WG addresses the competition between different pathways for utilising bioresources from concrete local and regional perspectives.
- ▶ **eseia WG Smart Cities and Regions** The eseia smart city concept essentially means an efficiency and effectiveness culture based on intelligent management and integrated ICT, and active citizen participation. This implies a new kind of local vs global governance, genuine citizen involvement, and more sustainable evaluation and monitoring systems.
- ▶ **eseia WG Education and Training** develops practical training and mobility programmes in order to enhance cooperation among eseia members. The WG also provides methodological guidance and quality assurance to the eseia E&T Programme targeting postgraduate students and professionals.

In 2013, the eseia Working Groups got ready for involvement in Horizon2020. **A preliminary selection of calls was discussed among Working Group members.**

By participating in the eseia Working Groups, experts **improved their knowledge** of the trends in these fields and the actors involved; It allowed them to **increase their visibility** in the innovation community, and **simplified their search** for your eseia peers.



Michael Narodoslawsky
TU Graz, Austria



Teresa Ponce de Leão
LNEG, Portugal



Maarten Arentsen
UTwente, The Netherlands



Ion Visa
TUB, Romania

Education and Training Programme

On the basis of the rich and comprehensive expertise of its members, eseia is becoming a **premier provider of practical education and training for postgraduate students and professionals** in and outside of Europe.

The eseia Education and Training Programme addresses business, science and politics as well as excellent students and an interested public.

It combines internationally recognized research across disciplines with entrepreneurial experience to provide participants with the skills and knowledge to develop innovative solutions. The eseia ETP is dedicated to the European key topic of future Sustainable Energy Systems and taps into the know-how of top-class scientists and entrepreneurs from the European Sustainable Energy Innovation Alliance (eseia)

eseia International Summer School 2013 on Smart Metropolitan Regions of Tomorrow 15- 28 July 2013

eseia and the Transilvania University of Braşov joined forces to bring European class education on Smart cities and Regions with a two week intensive program. The summer school was officially opened by Ion Visa, host representative and General Manager of the Research and Development Institute of Transilvania University of Braşov and the Summer School's organizers' Prof. Anca Duta and Prof. Mircea Neagoe.

From 15th to 28th July 2013, the whole organizing team welcomed 18 participants selected for this training course targeting Master's and PhD students interested in developing their project on topics relating to zero emission cities of tomorrow. The participants came from all over the world including students from Europe, Indonesia and Pakistan.



eseia International Summer School 2013, Braşov, Romania

Participants had the opportunity to evolve in a unique environment where they could explore the various aspects of the sector through core lectures, hands-on activities, workshops and professional visits. They had the chance to develop their projects with the help of international eseia experts. They had the chance to develop their own projects.

www.etp.eseia.eu

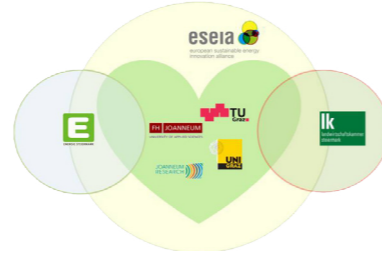
Projects

FOCUS ON BIORESOURCES

The Green Heart of Styria on bioresources
 1 July 2013 – 31 December 2014
 funded by Styrian Government



We live in a 'limited infinity' and bioresources are the only resource able to replace products from fossil fuels. As the demand for renewable energy increases, we see a competition arising for different forms of land use, mainly from food production, crops, or energy production for industry. The objective of this project funded by the Styrian government was to provide scenarios for sustainable use of bioresources in Styria.



FOCUS ON SMART CITIES AND REGIONS

iEnergy Weiz-Gleisdorf
 1 December 2012 – 1 December 2015
 funded by the Austrian Climate and Energy Fund

In order to secure the sustainable development of the urban region Weiz-Gleisdorf, an energy vision 'Weiz-Gleisdorf 2050' was developed. It was created on the basis of a scenario analysis with the involvement of all regional stakeholders. The planned development of the region aiming at 'zero emissions' requires people to change their way of living, in particular with regard to economy, transport and energy.



FOCUS ON EDUCATION AND TRAINING

eseia Best Lecture Library
 1 November 2012 – 30 March 2013

This project gathered the best lectures held and student projects developed for the Styrian Academy in a new eseia Best Lectures Library and made it available online. This collection includes a conceptual framework for how to run sustainable energy courses integrating the three sides of the knowledge triangle.



EC FP7 INCO ENER2I

1 October 2013 – 30 September 2016

ener2i reinforces cooperation with ENP countries on bridging the gap between energy research and energy innovation funded under the EU FP7 Programme for Research and Technological Development. The ener2i project, which was launched in October 2013, focuses on the need to find innovative and sustainable solutions, addressing the gap between new energy research and European industry.

www.ener2i.eu



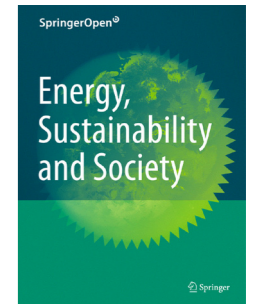
Kick off meeting Ener2i project, Vienna, Austria, coordinated by ZSI with partners from EU, Armenia, Belarus, Georgia and Moldova.



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 609532.

eseia Online Journal on Energy, Sustainability and Society

Together with Springer and the Helmholtz Association, eseia continued to publish the eseia online journal 'Energy, Sustainability and Society'. The journal offers an international and holistic platform for discourse between natural scientists, engineers, social, economic and political scientists as well as to experts from business who drive the innovation of sustainable energy systems. eseia members published a series of articles free of charge.



eseia Training Handbook

1 November 2012 – 30 March 2013

The eseia Training Handbook provided a European reference for sustainability in Education and Training Programmes. It includes a range of programme methodologies, formats, skills, contents, and standards developed from examples of best practice according to the eseia ETP.



Member Descriptions

BAV - Bergischer Abfallwirtschaftsverband, The Bergische Waste Management Association with headquarters in Engelskirchen is a public corporation within the North Rhine-Westphalia of Germany and operator of the landfill Leppe. BAV and the University of Applied Sciences Cologne developed the site into a waste to energy centre of competences.



DIT - Dublin Institute of Technology has been recognised as a pioneer in technological higher education. In addition to various study programmes, DIT delivers Ireland's main Masters Programme in Sustainable Development, with related programmes in Energy, Spatial Development, and Environmental Health.



ECO WORLD STYRIA is the globally leading innovation cluster in energy and environmental engineering in Styria, Austria. ECO supports 200 companies in this Green Tech Valley with services and projects focusing on innovation, know-how, and new markets to further extend technology leadership. ECO leads all rankings of cleantech clusters so far as worldwide No. 1 and was awarded the EU Regiostars for 'Innovative Growth'.



ELES - Electricity Transmission System Operator is a public company which has the exclusive right to perform the public service of the transmission network system operator in Slovenia. ELES's experts deal with issues relating to power-lines - including design and construction of transmission lines, substations and transformer facilities, as well as control centres.



Energy Institute at the Johannes Kepler University Linz focuses on economic considerations of energy policy issues, current issues of the Austrian energy law, the promotion of energy efficiency and the optimized use of biogenic residues. The Energy Institute also looks at the conceptual design of smart energy systems representing the optimal combination of existing components in effective overall smart systems.



FBK - Fondazione Bruno Kessler: The foundation with more than 350 researchers offers amongst others studies in Information Technology and Materials and Microsystems. Its conducted research obtains recognition at an international level and is of strategic importance to the Province of Trentino.



FH JOANNEUM – University of Applied Sciences: With currently nearly 50 degree programmes in the areas of Applied Informatics, Engineering, Civil Engineering and Energy, Design, International Business, and Health Sciences, as well as Postgraduate programmes in the area of management FH JOANNEUM is one of Austria's leading universities of applied sciences.



IPL - Polytechnic Institute of Leiria is one of Portugal's first polytechnic institutions, founded in 1980. The institute has the mission 'to train appropriately according to the legitimate expectations of the civil society, students and their families' and is a strong influence in the region.



Karl-Franzens-Universität Graz, was founded in 1585, is Austria's second oldest university and one of the largest in the country. Many excellent scientists, amongst them six Nobel laureates, have taught and researched here. Its location in Europe encourages a lively scientific, economic and cultural exchange with South-East Europe, from which not only the city benefits, but also its educational institutions.



LNEG – National Laboratory of Energy and Geology: The Portuguese National Laboratory for Energy and Geology is a State laboratory that makes R&D oriented to the needs of society and enterprises, investing in a sustainable research ensure that its areas of expertise allow an adequate response to the needs of the business sector.



MUL - Montanuniversität Leoben - The University of Leoben was established in 1840 and is an internationally renowned 'Center of Excellence' in the areas of 'Mining, Metallurgy, Materials' (Triple M). The core competencies range from raw material extraction to manufacturing, and recycling and disposal - considered as central tasks for future sustainability.



RIC - Regional Innovation Center - BRP Powertrain, an affiliate of Bombardier Recreational Products Inc. (BRP), is a leader in the development and production of innovative 4- and 2-stroke high performance Rotax engines for BRP products (Ski-Doo and Lynx snowmobiles, Sea-Doo watercraft and boats, Can-Am all-terrain, Side-by-side vehicles and roadsters) as well as for motorcycles, karts, ultra-light and light aircraft.



SINTEF Energy Research is a part of the SINTEF Group. Its R&D activities are focused on power production and energy conversion, transmission, distribution and the end use of energy, including industrial processes and products.



STU - Slovak University of Technology in Bratislava is the largest university of technology in Slovakia. It focuses on classical technical fields of study, economic and natural sciences, agricultural and forestry fields of study, as well as creative arts.



The Parthenope University of Naples is organized in five Faculties: Economy, Science and Technology, Law, Engineering, and Material Sciences, with some 18,000 students. An international PhD Programme in 'Resources, Environment and Sustainable Development' is offered in English.



TU Graz - Graz University of Technology, with more than 2,000 staff and 12,000 students, Graz University of Technology is known for its close business ties and a considerable number of successful spin-offs. Excellence has been achieved in the areas of the built environment and energy infrastructure, sustainable mobility as well as ecological and societal research linked to innovative energy systems.



TU Wien - Vienna University of Technology, is Austria's largest scientific technical research and educational institution, developing scientific excellence and wide-ranging competence. Its research focus point 'Energy and Environment' comprises more than 80 research groups from all eight faculties and pursues a technologically and interdisciplinary approach, providing integrated solutions.



TUHH - Hamburg University of Technology founded in 1978, it is Germany's youngest university of technology. The TUHH offers first-class teaching and excellent research at a high international level and provides intensive science and technology transfer in the field of engineering sciences



UCD - University College Dublin is Ireland's premier university, with some 25,000 students and the largest university research programme in Ireland. The UCD School of Bio systems engineering has a highly active research programme in bio-energy and its environmental impacts. The School addresses sustainability within the agri-food and bioresources sectors, and places particular emphasis on the delivery of innovative solutions to the main challenges facing these sectors, including the biomass-to-energy domain.



UH - University of Hamburg - Centre for Wood Science - The department of Wood Sciences of the University of Hamburg is closely linked to the Thünen Institut (TI). Regarding Research, tuition, and premises the University of Hamburg and the TI have a long lasting partnership agreement.



University of Twente - The University of Twente in Enschede is an entrepreneurial research university. It was founded in 1961 and offers education and research in areas ranging from public policy studies and applied physics to biomedical technology. The University is committed to making an economic and social contribution to the region of the Netherlands where it is based.



UTBv - Transilvania University of Braşov was founded in 1940 and is one of the largest universities in Romania, counting 15 faculties. The focus and development strategy lies on teaching, research, training, inter-university co-operation, university deontology, social protection of the university members, development and upgrading of the material base.



VGTU - Vilnius Gediminas Technical University, currently Vilnius Gediminas Technical University (VGTU) includes 8 faculties. The university is a member of the Lithuanian Green Building Council which regroups industrial partners on the topic of smart sustainable buildings.



Wood k plus - Kompetenzzentrum Holz GmbH, is a partnership of different companies and researchers in the areas of wood composites and chemistry. Wood K plus develops and optimises engineering processes that provide the basis for a new generation of innovative products based on wood and related natural substances, acting as a customer-oriented partner.



Finances

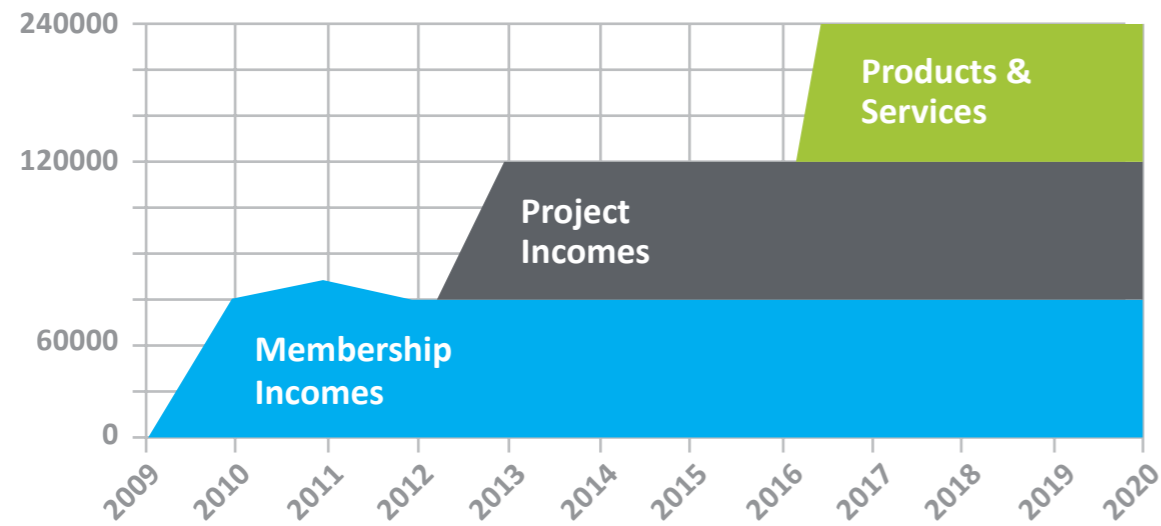
Despite the financial crisis, eseia entered its first phase of growth in 2013. Because of the growing effectiveness of the organisation going into its fifth year, eseia received a greater share of its income, from external funds for projects and services.

While project income increased, the level of membership fee income was stable compared to previous years. Membership fees essentially covered basic expenses for management and improving the visibility of the organisation and partly also for project acquisition.

eseia members contributed time and effort through the eseia Working Groups to push for project funding. As **Treasurer of eseia**, I am thankful to the eseia members for all their effort which has led to a successful financial year.



Sjoerd van Tongeren
U Twente, NL
eseia Treasurer



eseia income table

Looking to 2014

FOCUS	PROJECT TITLE	OBJECTIVES	LEAD ORGANISATION	FINANCING
1. Bioresources	Bioresources – The Green Heart of Styria	Create a whole value chain optimal usage scenario for bioresources.	Coordinators: eseia, Partners: Styrian Agricultural Chamber, Energy Styria, Joanneum Research, University of Graz, FH Joanneum, TU Graz	Styrian Government
	EC SET Plan Road Map	Steer joint projects and initiatives	TU Graz	eseia members
2. Smart Cities and Regions	I-Energy 2.0 Weiz-Gleisdorf	Establish smart energy demo projects in the Styrian region of Weiz-Gleisdorf	Energy Styria	Austrian Climate and Energy Fund
	EC SET Plan Road Map	Steer joint projects and initiatives	LNEG	eseia members
3. Education and Training	eseia ETP: Marketing and Implementation for 4 courses (Belarus, Moldova, Germany and Romania)	Internationally promote eseia as a high-quality provider for practice-oriented education and training in renewable energies	eseia members	eseia members
	Ener2i: Research to Innovation	Reinforcing cooperation with ENP countries on bridging the gap between energy research and energy innovation	Centre for Social Innovation (ZSI) Partners: eseia and 10 other entities	EC FP7 INCO
	eseia Best Lecture Library	Collection of the best lectures developed under the Styrian Academy and eseia ETP.	eseia Secretariat	Austrian Ministry of Science and Research
	eseia Reference Handbook	Establish a standard for education and training in RES in Europe	eseia Secretariat	Austrian Ministry of Science and Research
4. Visibility and Management	Project Acquisition	EU brokerage and networking event back to back with EUSEW 2014, Working groups Skype conferences	eseia Secretariat	EC FP7 INCO
	Raising eseia visibility	Raise eseia visibility as an organization: eseia conference hosted by UTWente and eseia business meetings in Brussels	eseia Governing Council	eseia basic funding, eseia Members
	eseia Management	Improve eseia Secretariat services, eseia Newsletters, eseia Annual Report, eseia Business Meetings	eseia Secretariat	eseia basic funding

Brussels Links

eseia Secretariat offered a wide range of services to members including access to News from the European Commission Grapevine.

The alliance actively participated in EC funded projects and set up international partnerships with major European networks.

In order to update members on recent policy and programme trends, eseia received a series of European Commission staff and colleagues from sister organizations to the eseia Brussels Hub in 2013.

Among the guest speakers were:

- ▶ Karin Kadenbach, Member of the European Parliament;
- ▶ Pia Bucella, DG Environment, Director Natural Capital;
- ▶ Pia Laurila, DG Research & Innovation - Regional Dimension of Innovation;
- ▶ Mario Roccaro, DG Education and Culture - Training and mobility of researchers;
- ▶ Andreas Gumbert, DG Agriculture and Rural Development;
- ▶ Virginie Rimbert DG Research & Innovation;
- ▶ Kimmo Järvinen, Secretary General at the European Sawmilling Association (EOS).



Karin Kadenbach, MEP and
Brigitte Hasewend, eseia Director



Virginie Rimbert, DGR&I



Brigitte Hasewend, eseia Director, Pia Laurila, DGR&I,
Harald Kainz, TU Graz, Pia Bucella, DG ENV,
Mario Roccaro, DG EAC, and Brian Norton, DIT



Kimmo Järvinen, EOS



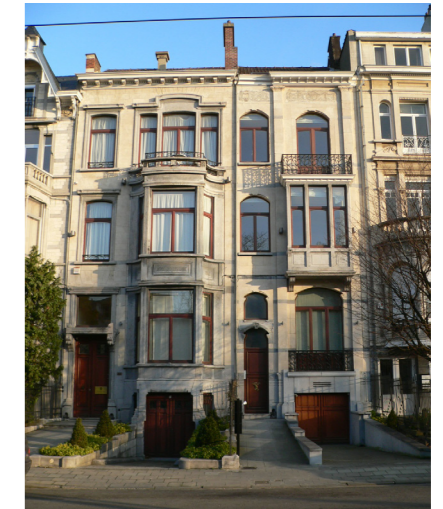
Andreas Gumbert, DG AGRI

eseia enhanced its visibility through several measures.

The new eseia service Portfolio gives an overview of all the services rendered to eseia members. The portfolio and the eseia presentation are downloadable from the member area on the eseia website.

The main website gives access to the eseia competence matrix and to the eseia Working Groups and their projects. eseia also keeps members informed with four editions of the eseia Newsletter published including many articles and members success stories.

The ETP website gives an overview of all the past and upcoming education and training activities. The alliance is promoting the eseia E&T Programmes on the basis of a professional marketing concept and developing media relations activities.

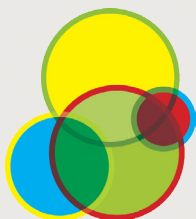


eseia Brussels Hub

The eseia expert database is a tool which provides easy access to the eseia expert pool for eseia clients and partners. eseia members may use the eseia expert database to simplify their search for complementary competence within the eseia community.



eseia



european sustainable energy
innovation alliance

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