

2010  
Annual Report







*“eseia is a dedicated and committed international partnership of organisations from all sectors of the knowledge triangle spanning renewable energies all the way from resources to consumption.”*

Brigitte Hasewend, Director of eseia

## Content

Message from the <b>eseia</b> President	2
About <b>eseia</b>	3
10 <b>eseia</b> Lead Initiatives	4
<b>eseia</b> Highlights 2010	6
1. <b>eseia</b> Organisation Building during Start-up Year	7
2. <b>eseia</b> Strategy and Programme	8
3. <b>eseia</b> Training Activities	10
4. <b>eseia</b> Events	11
5. <b>eseia</b> Lobbying and Services	14
Financial Information	16
<b>eseia</b> Members	17
Looking to 2011	22





## Message from the eseia President

Dear Members of **eseia**,



Since the inauguration of **eseia** in Graz, 19 November 2009, our Innovation Alliance has developed into a remarkable Europe-wide network. What unites us is our vision that **eseia** can take a leading role in the global transition towards sustainability as the world approaches new energy challenges. I am convinced that **eseia** has the potential to become an active and reliable partner for regional decision-makers world-wide in their attempt to implement sustainable energy solutions.

### Overview of First Year Accomplishments - 2010

2010 was a big year for **eseia** – it set up the Alliance with 38 member organisations from 14 countries including 7 business organisations, established organisational structures in Graz and Brussels, participated in the Central Europe Call and submitted 8 proposals to COST, Central Europe and one FP7 large scale collaborative proposal, held 4 business meetings in Brussels in March, May, October and December 2010, and promoted its activities in Europe by participating in the European Sustainable Energy Week and in a VIP PR event featuring European Commissioners and Representatives from the European Parliament.

Finally, **eseia members received a host of benefits:** proposal and project co-ordination, funding access, networks of contacts, co-operation and co-ordination infrastructure, innovation and commercialisation support, and much more.

### What makes eseia unique?

1. **eseia** offers a one-stop-shop supporting European regions on their way to reaching their energy strategies for 2050.
2. **eseia** recognises the fact that renewable energy solutions can only be successful on the market if consumers view these as beneficial to them. This is why **eseia** has developed a new brand of skills training seminars for students, practitioners and the general public.
3. **eseia** is a dedicated and committed international partnership of organisations from all sectors of the knowledge triangle spanning renewable energies all the way from resources to consumption. **eseia** members know that they can rely on each other.
4. From its knowledge pool **eseia** sets up transnational multidisciplinary innovation teams that can deal with the most complex sustainable innovation challenges of our society.
5. **eseia** has a dedicated management team with a Secretariat based in Graz and Brussels that keeps the alliance running with maximum effectiveness and impact.

I hope you will enjoy reading about our achievements in 2010 and support **eseia** in becoming a leading international player in sustainable energy innovation. Together we can make a difference.

Yours sincerely,  
Hans Sünkel, President of **eseia**  
Brussels, December 2010





## About eseia

**eseia**, the European Sustainable Energy Innovation Alliance, is a European association of leading innovation organisations dedicated to advancing innovation to implement sustainable energy systems in Europe as well as on a global scale. The **eseia** Secretariat is located at the Graz University of Technology with an office in Brussels.



## eseia Vision

**eseia** believes that national governments will be complemented more and more by regional administrations as the institutions in charge of planning, choosing, funding, and implementing energy solutions. Europe will rely on Regional sustainable energy systems to drive a vibrant, innovative and just society supporting a high quality of life. Regions will fulfil their role by responsibly managing the environment and renewable resources, and by providing information, infrastructure and public services to their citizens, thus ensuring the efficient and safe use of renewable energy. By achieving this crucial position, Regions will enhance their role in European politics and society, grow their economies, and preserve their natural and cultural diversity.

**eseia** will coordinate and promote this model of regional energy systems within the European Union.



## eseia Mission

By 2012 **eseia** intends to be active in 10 regions of Europe that will be acting as innovation labs in partnership with regional players, businesses, institutions, and society.

By 2015 **eseia** will have developed an innovative method to integrate the necessary knowledge development, education, and information measures.

By 2019 the running labs will be converted into implementation at a wider scale in the active regions, running as models for all of Europe and globally.

### eseia by the Numbers

38	Member organisations
7	Business organisations
10	Research organisations
21	Universities
14	Countries
€ 10 Mio.	Amount of money <b>eseia</b> bid for in 2010



## About the Annual Report 2010

This Annual Report gives an overview of the start-up period of **eseia** in 2010. The member organizations are shortly introduced, and highlights of 2010 are listed. This eventful year was characterized by strategic discussions and organizational issues, the start-up of services for members and the coordination of the first **eseia** consortia for project proposals.





## 10 eseia Lead Initiatives

The following section provides an overview of the 10 **eseia** lead initiatives.



### Entrepreneurial Education

#### 1. Entrepreneurial Education Programme **eRETRAIN**

Within this Lead Initiative training programs for practitioners, public services and opinion leaders, re-training for employees coming from other sectors to sustainable energy systems as well as re-orientation programs for students to sharpen their entrepreneurial skills to pursue innovation in sustainable energy systems will be discussed.

#### 2. Entrepreneurial Education Programme **RefCurriculum**

The program will create reference curricula that set a European standard for entrepreneurial education in sustainable energy.

The goal is to educate elite innovators for business who will be employed in cutting edge enterprises or take responsibility as leaders of their own spin-off or start-up companies.

On the basis of these Reference Curricula, the HEI **eseia** Members will offer degree programmes that are certified by the **eseia** Regions Entrepreneurial Education Board. The participating universities will award an additional **eseia** certification with their degree.



### Platform 1: Usage Scenarios

#### 3. Low Carbon Industrial Parks

This Lead Initiative will address topics ranging from industrial ecology approaches to the integration of energy technologies based on renewable resources into industrial parks, as well as the interaction between industries and communities to minimise their emission of greenhouse gases.

#### 4. +energy settlements and multi-energy storage buildings parks

This Lead Initiative will deal with topics of energy producing settlements, spatial planning issues related to energy provision and consumption and the possibilities to buffer time-dependent renewable energy supplies (e.g. solar radiation or wind power) within the framework of buildings and settlements.

#### 5. Smart energy for green mobility

The major issues of this Lead Initiative are green mobility concepts, from drive systems to the underlying infrastructure to dispense the necessary energy, on a locally adapted scale, taking regional resources into account.



### Platform 2: Energy Provision

#### 6. Bio-Carbon capture and re-utilisation: biofuels from flue gas

This Lead Initiative will develop a technology to capture CO<sub>2</sub> from flue gases efficiently in algae. It will then pursue different lines of utilizing algae, either by extracting fats for biofuel production or by producing a fuel for combustion from the whole algae.

The alternative technologies will be evaluated in terms of their respective technological development risk and their ecological and economic potential.



## 7. Source to use biomass value chain optimization

This initiative will consider legal as well as socio-economic hindrances to biomass utilisation, optimization of biomass utilization technology networks, and development of business models to mobilize various kinds of biomass, especially from small-holders forests and biomass by-products such as straw. This initiative will lead to the development of optimization routines for biomass logistics adapted to local/regional resource and storage conditions as well as cost/price profiles.

### Platform 3: Energy Intelligence

## 8. Intelligent wind energy systems

Development of optimised wind energy systems.

## 9. +energy building monitoring and control strategies

Development of smart building monitoring and control strategies aimed at making buildings net energy providers.

### Platform 4: Policy Options

## 10. Regional energy resource management policy options

Resource management on the regional level is dependent on the physical context, European as well as national legal norms, cultural traditions and local and global markets. Decisions about the management employed are always the result of an intense political and social process on the basis of natural and technical science input and stakeholder deliberations.

*“eseia offers a one-stop-shop supporting European regions on their way to reaching their energy strategies for 2050.”*

Hans Sünkel, President of eseia





## eseia Highlights 2010

Following its inauguration on 19 November 2009 in the aftermath of the successful proposal submission to the EIT, 2010 was **eseia**'s first full year of operations. During this start-up year, the organisation was built and basic processes and services developed. The **eseia** Secretariat with its headquarters based in Graz became operational. A highlight of 2010 was the opening of the **eseia** Brussels Office in March.

During this first year **eseia** held a number of joint events. In March the 1<sup>st</sup> Regional **eseia** Workshop was held during which members defined a strategic **eseia** programme with a backbone of 10 thematic lead initiatives. Subsequently, a library of 10 projects was developed among members in a series of telephone conferences during the months of May-July. This project library represented the breeding ground for a total of 8 international proposals submitted in September. **eseia** members did not only collaborate on innovation projects but also on training in the framework of the STYRIAN ACADEMY for Sustainable Energies, a European life-long learning platform developed by TU Graz.


**eseia** events also included participation in the European Sustainable Energy Week (EUSEW) for a wider audience and four business meetings of the General Assembly and Governing Council with representatives of the European Commission. The **eseia** Secretariat also participated in a series of strategic meetings gathering behind-the-scene information identifying a wide range of project opportunities for individual members.


The main outputs of 2010 are summarized below according to 5 lines of action.

### 5 Lines of Action


#### 1. **eseia** organisation building


### Accomplishments 2010

 Inaugural Meeting of **eseia** 19 November 2009

 Organisation building and development of central processes and services, establishment of **eseia** Secretariat, Graz and Brussels Offices in March


#### 2. **eseia** strategy and programme

 10 lead initiatives forming the **eseia** programme


 Foundation of collaborative project library


 8 proposals submitted

#### 3. **eseia** training activities

 STYRIAN ACADEMY for Sustainable Energies, July


#### 4. **eseia** events

 **eseia** 1st Regional **eseia** Workshop, Graz, 4 March

 EUSEW Workshop, Brussels VIP Event, **eseia** Brussels Office Opening, 24 March

 **eseia** business meetings, Brussels, 24 March, 5 May, 12 October, 8 December

#### 5. **eseia** lobbying and services

 strategic meetings throughout the year



## 1. eseia Organisation Building during Start-up Year

One main challenge during this start-up year was organisation building and development of central processes and services as well as the establishment of **eseia** Secretariat, Graz and the opening of the Brussels Office in March.

### Inaugural Meeting, Graz, 19 November 2009

The Inaugural Meeting of the Alliance was hosted by TU Graz on 19 November 2009. 90 participants from 17 European countries took part and underlined the importance of **eseia** as a strategic partner of the international eCANDO consortium bidding for the EIT (European Institute of Innovation and Technology)-ENERGY KIC.

In view of the Knowledge and Innovation Community – KIC- in sustainable energy, **eseia** stated that integration of all major forces in Europe was needed to make it a success in the future. In the meeting, the fundamentals of the **eseia** programme were discussed, resulting in the formulation of 10 lead initiatives.



eseia inaugural meeting.



Picture: Initiators of **eseia** from TU Graz, Left to Right: Franz Stelzer, Vice-Rector, Brigitte Hasewend, Director International Sustainability Partnerships, Prof. Michael Narodoslawsky, Institute for Process and Particle Engineering.

### Opening eseia Brussels Office, Brussels, 24 March

The President of **eseia** Hans Sünkel opened the new **eseia** office in the European capital together with **eseia** members, the Styrian Governor Franz Voves and Manfred Wegscheider, the member of the Styrian government responsible for renewable energies. The office functions as a hub of the alliance in the European capital. The Office is staffed by personnel from **eseia** member organisations.



The **eseia** Brussels Office.



## 2. eseia Strategy and Programme

### 1st eseia Regional Workshop, Graz, 4 and 5 March

This two day workshop was aimed at a substantive expansion of the flagship initiatives of the project and was the kick-off for the **eseia** Sustainable Energy Innovation Programming which forms the cooperation framework for **eseia** members. A total of 36 participants from 6 countries from business and science discussed which projects should be undertaken by **eseia** according to the 10 **eseia** lead initiatives. The workshop split up into the following four thematic groups which produced 8 project ideas with descriptions of aims and objectives as well as definitions of leaders and partners:

1. **Entrepreneurial Education** (Chair: Maarten Arentsen, U Twente, NL)
2. **Sources to Use Biomass Value-Chain Optimisation** (Chair: Ina Körner, TUHH, D)
3. **+energy settlements and mult-storage buildings** (Chair: Jürgen Suschek-Berger, IFZ, AT)
4. **Regional Energy Resource Management** (Chair: Michael Narodoslawsky, TU Graz, AT)



Left: Anca Duta, Transylvanian University of Brasov/RO, Jose Vaz Pinto, LNEG/PT; Middle: Walter Brabek, ACC Styria/ AT; Right: Reinhard Padinger, Joanneum Research/AT.



Upper Left: Luigi Crema, FBK/IT and Andy Maguire, DIT/IE; Upper Right: Harald Raupenstrauch, MUL/ AT and Herbert Schifferl, voestalpine/AT; Lower Left: Sener Oktik, Mugla University/TU and Marian Janek, STU/ SK; Lower Right: Shane Ward, UCD/IE, Eva Kastner-Puschl, **eseia** Secretariat.



Upper Left: Bernhard Putterer, EcoWorld Styria/ AT, Michael Azodanloo, ICS/ AT; Upper Right: Juraj Sinay and Katharina Valentova, TUKE/ SK; Lower Left: Jürgen Suschek-Berger, IFZ,/AT, Heide Streicher, **eseia** Secretariat, AT; Lower Right: Helena Bartolo, IPL/PT; Bernhard Brandstätter, ELIN Motoren/AT.








These thematic groups came up with 8 project ideas with short descriptions of aims and objectives as well as definitions of leaders including a total of 30 partners.

Following this intensive regional dialogue held in Graz, the **eseia** Secretariat organised a series of telephone conferences on these 8 core project ideas in the months of May to July with the aim of laying the foundations for an **eseia** project library. This **eseia** project library would identify the gaps in sustainable energy innovation and provide for rapid and effective response to European, national, and regional funding opportunities. By the end of this process a total of 10 **eseia** projects were defined including 100 partners Europe-wide.

Thanks to the **eseia** project library, the **eseia** Secretariat was able to support 8 European proposal submissions in the last quarter of 2010 including to FP7, COST and Central Europe.

### **eseia Projects**

In 2010 **eseia** submitted a total of 8 project proposals. **The eseia secretariat provided the following services to members:**

-  Preparation of funding profiles for **eseia** proposals
-  Provision of key fact sheets on the details of relevant calls
-  Support for consortium building
-  Coordination of proposal preparation process
-  Series of telephone conferences

## **CENTRAL EUROPE**

### **Introduction of Regional Energy Concepts**



**This project is eseia's first success on the proposal front.** **eseia** was selected as associated partner in the Central Europe Programme in the area of dissemination and knowledge transfer. The overall objective of the project is the promotion of renewable energy resources and the utilisation of their exploitation as a development engine and a sustainability factor at the regional/local level. This project is coordinated by the Hungarian Ministry of Economics. The project will start in September 2011.

The following six proposals were submitted by **eseia** members under COST with the help of the **eseia** Secretariat:



-  **Towards Affordable and Sustainable Living Models for European Communities**  
Coordinator: J. Suschek-Berger, IFZ, 11 partners
-  **Bio-resource Flow Management**, Coordinator: Michael Narodoslawsky, TU Graz, 13 partners
-  **Bio-Business Models**, Coordinator: Maarten Arentsen, University of Twente, 11 partners
-  **Algae Biomass Refinery for the simultaneously capturing of CO2 and the generation of fine chemicals and bio fuels**, Coordinator: Hans Schnitzer, TU Graz, 14 partners
-  **Energy Grid Link**, Coordinator: Luigi Crema, Fondazione Bruno Kessler, 8 partners
-  **Bio-Energy Certificate**, Coordinator: Martina Bravec, University of Maribor, 15 partners



## Sustainable and Resilient Green Cities – RECAP

**eseia** was invited to be a partner in RECAP for dissemination and knowledge transfer. This proposal was coordinated by TU Graz in cooperation with a total of 32 partners Europe-wide including FBK, LNEG, Polytechnico de Leiria and VGTU. The idea is to enable cities to respond to a number of combined "grand challenges": natural resource shortages, climate change adaptation and mitigation, and unprecedented urban growth in ways that are socially, economically and environmentally acceptable and feasible. A funding decision will be taken by the European Commission in spring of 2011.



### 3. eseia Training Activities

One of the lead initiatives at the heart of **eseia** is the **eseia** education and training activities. Among **eseia** members discussions were held on how to develop an **eseia** training brand that would add to existing training courses in Europe. **eseia** came up with the following 6 features of how these courses should be conceived:

1. **THINKING OUT OF THE BOX:** Moving participants out of their comfort zone by encouraging cross-linked inter-disciplinary thinking and providing new perspectives beyond entrenched habits for shaping courageous and creative approaches.
2. **INTER-REGIONAL:** High-quality knowledge transfer by international top experts providing transferable solutions for European regions.

3. **PEER TO PEER:** Focused exchange of experience and business solutions between key players from business, science, and politics on the basis of peer to peer knowledge transfer.
4. **SYSTEMIC AND INTER-DISCIPLINARY:** Promotion of a holistic view of technological systems across disciplines rather than the isolated development of components.
5. **TARGETING PRACTITIONERS OUTSIDE ACADEMIA:** Top scientific information for business partners and decision-makers from business and politics presented in an accessible way.
6. **FOCUSING ON SKILLS TRAINING:** Entrepreneurial skills training as well as the training of technical and social competencies for the development of innovative solutions and their implementation in the market in highly dedicated inter-disciplinary teams.




**eseia** actively supported the STYRIAN ACADEMY for Sustainable Energies because it is in line with the above-mentioned training principles. The STYRIAN ACADEMY

was held in July 2010 for the first time. It is a unique international European life-long learning platform organised by Graz University of Technology in cooperation with **eseia**. The STYRIAN ACADEMY addresses business, science and politics as well as excellent students and the interested public.

<http://www.styrianacademy.eu>



#### 4. eseia Events

 eseia Workshop,  
EUSEW, Brussels, 24  
March



**eseia** participated in the EUSEW 2010 with a workshop on the topic of “**European model regions in sustainable energy: From Idea to Market**”. This workshop was held in cooperation with the regions of Hamburg, Styria, Trentino and Twente at the Committee of the Region.

Pannelists: **eseia** President Hans Sünkel, TU Graz, Bruno Schmitz, Head of Unit Renewable Energy Resources, European Commission, DG RTD, Maarten Arentsen, University of Twente, NL, Ina Körner, TUHH, D, Michael Narodoslawsky, TU Graz, AT, Wolfgang Jilek, LEV, AT, Brigitte Hasewend, Director of **eseia**. Moderators: Monica Schofield and Francesco della Porta



Left to right: Maarten Arenten, U Twente/ NL, Michael Narodoslawsky, TU Graz/ AT, Francesco della Porta, FBK/ IT, Ina Körner, TUHH/ D, Brigitte Hasewend, Director of **eseia**/ AT.

#### eseia VIP Event, Brussels, 24 March

**eseia** also participated in a VIP event organised by the Brussels Office of the Region of Styria featuring an electric bike race with VIPs in front of the Berlaymont. **eseia** President enjoyed the company of three Commissioners Öttinger (Energy), Hahn (Regional Policy) and Potocnik (Environment), the Governor of Styria and MEPs.

In order to show the **eseia** approach and team spirit, **eseia** presented the TU Graz built omnibike (Michael Bader, TU Graz). This innovative bike is hand-driven by three drivers who will only move forward if they all agree on steering in the same direction. The three sides of this bike represent the three sides of the knowledge triangle. The **eseia** approach is based on the integration of all three sides of the knowledge triangle, namely science, education and innovation.



Top: Günther Öttinger, Commissioner Energy, Johannes Hahn, Commissioner Regional Policy, Janez Potočnik, Commissioner Environment, Franz Voves, Governor of Styria, AT, Helga Ranner, MEP, Hans Sünkel, **eseia** President, Jörg Leichtfried, MEP.





Top Left: Bike race sponsored by Energie Steiermark, AT;  
Top Right: Manfred Wegscheider, Styrian Government, Responsible for Renewables, at, Oswin Kois, representing the sponsor Energie Steiermark, AT;  
Bottom Left: TU Graz built Omnibike, three-sided hand-driven bike symbolising the concept of **eseia**.  
Bottom Right: Franz Voves, Governor of Styria, AT, Hans Sünkel, **eseia** President, Johannes Hahn, European Commissioner, Regions. (Brussels, 24 March 2010).

## **eseia Business Meetings, General Assembly (GA) and Governing Council (ADCO)**

In 2010 four General Assembly and Governing Council Meetings were held in Brussels. Each of the meetings was organised with a special thematic focus including the opportunity to meet representatives from the European Commission.

### **Brussels, 24 March 2010, GA and ADCO**

The spring business meetings were held back to back with the European Sustainable Energy Week (EUSEW). Scientific coordinator Michael Narodoslawsky, TU Graz, reported on the outputs of the first **eseia** regional workshop held in Graz, 4-5 March. The **eseia** members presented the latest developments in their organisations.

### **Brussels, 6 May 2010, GA and ADCO**

In the second meeting members discussed the development of a strategy towards mirror organisations of **eseia**. The General Assembly discussed the option for regional clusters of organisations mirroring **eseia** in terms of their aims, objectives and composition.



Maarten Arentsen, U Twente/ NL, Monica Schofield, TuTech Innovation, Hamburg/ D, Ina Körner, TUHH/ D, **eseia** Vice-President Maciej Zukowski, Poznan University of Economics/PO



### Brussels, 13 October 2010, GA and ADCO

Members discussed the basic strategy and elements for the Work Programme and Budget 2011. As usual the **eseia** Secretariat gave an overview of activities and services rendered to **eseia** members.

Paolo Traverso (left picture) resigned as Treasurer because his job as Director of IRST at FBK required a greater share of this attention than initially expected. Subsequently, the GC therefore nominated Francesco della Porta, FBK (right picture) as new Treasurer of **eseia**.

### Brussels, 8 December 2010

In the context of this meeting, a lunch workshop took place on “Smart Sustainable Cities”. During this business meeting the **eseia** Work Programme and Budget 2011 were presented. **eseia** members stressed the importance of involving more businesses.



Top: Klaus Loenhardt, TU Graz/ AT, Maarten Arentsen, University of Twente, NL, Gintaras Stauskis, VGTU/LT; Bottom: Gudrun Weinwurm, Vienna University of Technology/ AT, Jose Vaz Pinto, LNEG/ PT.

On this issue Josef Furlinger, BRP Powertrain, gave a presentation on how to develop a business strategy for **eseia** which was much acclaimed by members.

Another topic of concern was the engagement of children and young people. **eseia** members agreed to exchange information on how they promoted involvement of the next generation in sustainable energy technology.

*“eseia recognises the fact that renewable energy solutions can only be successful on the market if consumers view these as beneficial to them.”*

Hans Sünkel, President of **eseia**



## 5. eseia Lobbying and Services

**eseia** actively collected early-stage information on funding opportunities and communicated these throughout the **eseia** network. Secretary General Brigitte Hasewend and the **eseia** Secretariat team undertook missions to Brussels intensifying international contacts and extending the **eseia** knowledge base on European projects. Furthermore, members of the European Commission were systematically invited to the **eseia** business meetings.

In May **eseia** was invited by the European Commission to an informal meeting on joint training initiatives across Europe in the framework of the European Strategic Energy Technology Plan (SET-Plan). The Commission was seeking to explore a roadmap for training in sustainable energies with major European players including EERA, InnovEnergy and SEE-IT.

The following is a selection of meetings that the **eseia** Secretariat attended in 2010:

-  Brussels, 8 July, FP7 **Energy Research Information Day**
-  Vienna, 15 July, **Central Europe**
-  Brussels, 9 July, **Info Day on Research PPPs - Factories of the Future, Energy-efficient Buildings, Green Cars**
-  Brussels, 15-16 November, **European Strategic Energy Technology Plan (SET-Plan)**

## eseia Management

**eseia** is a not-for-profit organisation according to Austrian law, and is governed by a supreme body, the General Assembly, where all **eseia** members are represented.

### eseia Secretariat

**eseia**'s operations are co-ordinated by the **eseia** Secretariat based in Graz, Austria with an Office in Brussels. The **eseia** Secretariat handles the day to day affairs of the Association and is headed by the Secretary General, Brigitte Hasewend. Before joining Graz University of Technology in 2007, Brigitte Hasewend spent 10 years living and working in Brussels. During this time she held several positions at DG Research of the European Commission where she worked as a project officer for Marie Curie excellence actions, as well as policy officer for the 'Europe of Knowledge 2020' and the 'Forum on Science and Society'. Previously, Brigitte was an executive working as Deputy Director at the Academic Cooperation Association (ACA), an international organisation for higher education cooperation based in Brussels.



## eseia General Assembly (GA)

The GA elects the President, admits new members, approves the Association's budget and accounts, and decides on the internal regulations of the Association and other matters within its remit. All members and associate members are entitled to attend the GA, but only members have the right to vote. The GA meets at least once a year. In the meetings of the members of the association **eseia** held at regular intervals in Brussels, the development of the 'Sustainable Energy Innovation Programme' was discussed continuously. The members of the association were therefore constantly involved, from the conception phase through to the submission of specific projects.

## eseia Governing Council (GC)

The GC is responsible for the management of the Association. The GC consists of 7 administrators, including the **eseia** Treasurer and the Vice-Presidents. The members of the GC are elected by the GA. The **eseia** President and the **eseia** Secretary General are members of the GC. The GC meets several times a year.

### General Assembly

**eseia's** highest decision-making body meets at least once a year

### Governing Council

responsible for the management of **eseia**



Hans  
Sünkel,  
TU Graz, AT

President



Teresa Ponce  
de Leão,  
INETI, PT

Vice President



Brian  
Norton,  
DIT, IE

Vice President



Maciej  
Zukowski,  
PUE, PL

Vice President



Ion  
Visa,  
UNITBV, RO

Vice President



Francesco  
della Porta,  
FPK, IT

Treasurer



Brigitte  
Hasewend,  
TU Graz, AT

Director

### Secretariat

co-ordinates **eseia's** operations and is located in Graz, Austria





## Financial Information

Dear Members,

The **eseia** budget is proof of the ambition of **eseia** to become a more visible and recognised organisation in the coming years. This step requires a clear vision and focus that we need to develop as an organisation.



Let me stress that I am convinced that much has already been achieved. We have 38 fee-paying member organisations in **eseia**. This commitment of our partners is remarkable and is the constant well from which the growth of **eseia** is drawing. As groups of regional players are actively pursuing membership in **eseia**, we will need to think about new membership models.

Even though membership fees are necessary to secure basis funding, **eseia** also needs to secure income from other sources. One option is to tap into the large scale structural funding of the EU of which 10% are earmarked for innovation. I there-

fore invite the **eseia** community to make an effort to secure funding especially from regional sources.

I propose to develop an **eseia** policy whereby **eseia** members systematically involve **eseia** in their projects as a partner if they see fit, a gesture for which I believe members should be rewarded.

In addition, I believe that **eseia** needs to diversify its income situation even further in that revenue from **eseia** services needs to be created. In my view, consulting for **eseia** model regions could be a way forward for image building as well as revenue generation. In the future, our aim should be to become less dependent on public funding competitions.

I am looking forward to establishing **eseia** as a financially sound, high impact organisation. I believe **eseia** and its member organisations deserve it.

Yours Sincerely,  
Francesco della Porta  
Treasurer

*“eseia members need to make an effort to secure funding from regional sources. We also need to think about offering eseia consultancy services to European regions.”*

Francesco della Porta, Treasurer of **eseia**, FBK/ IT



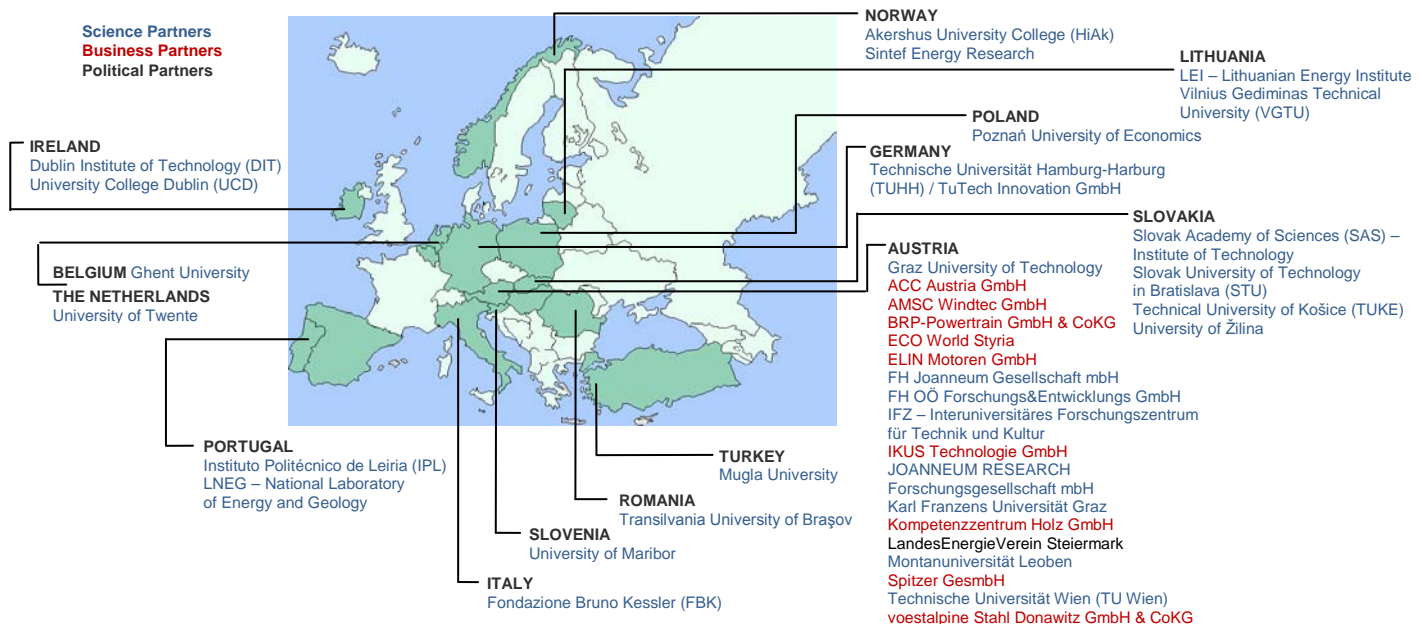
## eseia Members

Members of **eseia** are leading international innovation actors from all sides of the knowledge triangle, businesses, research and education organisations as well as public institutions that pursue the goal of advancing sustainable energy systems. 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. The alliance spans the whole of geographical Europe.

In 2010, **eseia** grew to a network of 38 organisations from 14 countries. At the moment, the majority of

**eseia** members are from research and education. **eseia** counts 9 businesses among its membership including the world's best "Green Tech Cluster": **Eco-world Styria**. The **eseia** Secretariat intensified the efforts in widening the **eseia** network towards business and policy-makers, especially on the regional level with the Region of Styria supporting **eseia** projects on a larger scale. For the purpose of strengthening the alliance, **eseia** promoted memberships with project partners outside the **eseia** network.

The map below shows the **eseia** landscape of fee-paying members in 2010. **eseia** extends the current borders of the European Union including member organisations from Norway high in the north and Turkey in the far east of Europe.





## List of eseia members 2010

In the following sections short descriptions of the **eseia** members are given in alphabetical order. They reflect the wide range of countries and competencies of the network. The members were very active in 2010, taking part in consortiums of research proposals or inviting **eseia** as consortia partners to their own projects.



**ACC Austria GmbH** was founded in 1982 in Fürstenfeld, Austria, and has 700 employees. The company produces hermetically sealed compressors for home appliances. Currently ACC Austria is working on the implementation of the so-called Delta Compressor – a small, lightweight compressor with better energy efficiency that will revolutionise the compressor market. [www.verdichter.at](http://www.verdichter.at)



**Akershus University College** - Høgskolen i Akershus is a State University College,

founded in 1992 in Norway. The four faculties encompass Product Design, Health, Nutrition and Management, Behavioural Science, and Technical and Vocational Teacher Education. [www.hiak.no](http://www.hiak.no)



**AMSC Windtec GmbH** is a wholly-owned subsidiary of American Superconductor (AMSC). Since its founding in 1995 in Klagenfurt, Austria, Windtec has become the leading engineering company in developing electrical and mechanical systems for wind turbine applications. Its concept "Build Your Own Wind Turbine" allows for manufacturing of self-designed wind turbines by original equipment manufacturers. [www.ams-c-windtec.com](http://www.ams-c-windtec.com)



**BRP-Powertrain GmbH & Co KG**, 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. [www.brp.com](http://www.brp.com)



**Regionales Innovations Centrum GmbH (RIC)** - an affiliate of BRP-Powertrain GmbH & Co KG - has the focus on research and on building up knowledge. The RIC perfectly combines these pillars: R&D on one and high-level qualification on the other side. The RIC - an innovative platform for the exchange of creative thinking between universities and the industry, stands for the next generation of technology centres. The modern building is situated on BRP-Powertrain's premises. [www.r-i-c.at](http://www.r-i-c.at)



Since its foundation in 1992, **Dublin Institute of Technology (DIT)** has been recognised as a pioneer in technological higher education, and has become one of Ireland's largest third level institutions. 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. [www.dit.ie](http://www.dit.ie)



**ECO WORLD STYRIA** is the globally leading business cluster in energy and environmental engineering. To further strengthen and extend international technology and market leadership, ECO WORLD STYRIA supports these companies and Styria – the World's Green Tech Valley – with services and projects focusing on innovation, know-how, and new markets. In early 2010, it was recognized as the world's best Green Tech Cluster by the international Cleantech Group (USA). [www.eco.at](http://www.eco.at)



As one of the leading manufacturers of engines and generators, **ELIN EBG Motoren GmbH** can look back on more than 100 years of experience in the field of powerful, reliable and cost-optimised drive technology. [www.elinmotoren.at](http://www.elinmotoren.at)



**Fachhochschule Oberösterreich - The Upper Austria University of Applied Sciences** is the largest university of applied sciences in Austria, offering innovative and interdisciplinary academic degrees. The university is a recognized research partner for industry and actively involved in international co-operations. [www.fh-ooe.at](http://www.fh-ooe.at)





FH JOANNEUM –  
University of Applied Sciences –  
With currently 36

degree programmes in the areas of Health Sciences, Information, Design & Technologies, International Business, and Life, Building, and Environment and one Postgraduate programme in the area of management FH JOANNEUM is one of Austria's leading universities of applied sciences.  
[www.fh-joanneum.at](http://www.fh-joanneum.at)



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.

[www.fbk.eu](http://www.fbk.eu)



Founded in 1817, Ghent University is a major university in the Dutch-speaking region and the low countries. Located in Flanders, the university is an active partner in national and international educational, and scientific and industrial cooperation. At the base of its education and research lie curiosity and ambition.

[www.ugent.be](http://www.ugent.be)



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.  
[www.tugraz.at](http://www.tugraz.at)



The Hamburg University of Technology (TUHH), 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.  
[www.tu-harburg.de](http://www.tu-harburg.de)



IKUS Technologie GmbH stands for innovative components and systems and the fusion of nature and technique to new efficient technologies. The company offers the most efficient use of energy with CRYO-P®. By evaporating liquefied gas this technique produces high pressure without any loss. With CRYO-P® there is no need of implementing gas or power pipelines because of having liquefied gas on-site.  
[www.ikus.at](http://www.ikus.at)



The Inter-University Research Centre for Technology, Work and Culture - Interuniversitäres Forschungszentrum für Technik, Arbeit und Kultur (IFZ) was established in 1988 as the Graz branch of the Klagenfurt University. It attempts to improve the understanding of technology's role in society and develop new approaches to shape technological change. IFZ deals with sustainable construction and efficient energy use, exploring the role of users.  
[www.ifz.tugraz.at](http://www.ifz.tugraz.at)



The Institute of Technology of the Slovak Academy of Sciences (IT SAS) has been established in Bratislava to coordinate and support research in the field of new progressive materials and technologies. The main target of this partnership is the promotion of multidisciplinary material research having a background in broad areas of the natural sciences.  
[www.ti.sav.sk](http://www.ti.sav.sk)



With its 13 research units JOANNEUM RESEARCH Forschungsgesellschaft mbH is one of the largest non-university research institutions in Austria, offering a wide range of services: applied R&D for SMEs, technical business consulting, and support and project management in applications for national and international funding. Its research is geared towards the demands of business and industry.  
[www.joanneum.at](http://www.joanneum.at)



Founded in 1585, the Karl-Franzens-Universität Graz - The Karl-Franzens University of Graz is one of Austria's largest, most venerable and most innovative universities with about 3,500 employees in research, teaching and administration. Diversity and a wide variety characterise the educational offerings at six faculties, one of which focuses on Environmental and Regional Sciences and Education.  
[www.uni-graz.at](http://www.uni-graz.at)



Kompetenzzentrum Holz GmbH (Wood k plus) 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.  
[www.wood-kplus.at](http://www.wood-kplus.at)





**LandesEnergieVerein Steiermark** (energy agency Styria) was founded in 1981 as an interface between administration, policy, research, and the consumers of energy in Styria, with the aim of increasing efficiency of energy use and the use of renewable, domestic sources of energy. Its activities comprise the support of energy projects, consciousness raising and PR work, training, and award of grants. [www.lev.at](http://www.lev.at)



**Lietuvos energetikos institutas - The Lithuanian Energy Institute (LEI)** was established in 1956. The LEI is a technical research centre dealing with energy related research for the analysis of security of energy supply, development of energy planning methods, fuel cells and hydrogen, renewable energy, thermal physics and fluid mechanics, nuclear safety, structural integrity assessment of components and structures, and simulation of complex energy systems. [www.lei.lt](http://www.lei.lt)



**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. [www.unileoben.ac.at](http://www.unileoben.ac.at)



Since its establishment in 1992, **Muğla University** has been in pursuit of quality higher education and research to contribute to the socio-cultural, scientific, and technological development of the country. The university is rapidly developing, consisting of 6 faculties and hosting more than 20,000 students. [www.mu.edu.tr](http://www.mu.edu.tr)



The **National Laboratory For Energy and Geology (LNEG)** is a public institution for research, development and demonstration within the Ministry of Economy in Portugal. The LNEG has a large number of renewable energy projects, from solar to bioenergy, and from developing patents, to pilot and full scale plant, and technical support to industry. [www.lneg.pt](http://www.lneg.pt)



The **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, the students and their families" and is a strong influence in the region. [www.ipleiria.pt](http://www.ipleiria.pt)



Established in 1926, the **Poznań University of Economics (PUE)** is one of the leading business schools in Poland, currently attended by over 15.000 students at 5 faculties. PUE specialises in educating economists, managers and specialists in management. PUE focuses on international market research in order to facilitate the expansion of Poland's export trade. [www.ue.poznan.pl](http://www.ue.poznan.pl)



**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. [www.sintef.no](http://www.sintef.no)



**Slovak University of Technology (STU)** 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. [www.stuba.sk](http://www.stuba.sk)



**Spitzer GesmbH** is one of the biggest Austrian engineering consultants located in Vorau. The company offers planning services for industrial plant engineering, mechanical engineering, building & energy technology, electrical engineering as well as environmental and drainage technology. [www.spitzer.at](http://www.spitzer.at)



The **Technical University of Košice (TUKE)** was founded in 1952. Today the TUKE has 9 faculties, and 900 research and administrative staff. TUKE caters for a wide range of educational needs throughout Slovakia and Central Europe, and in many specializations it is the only centre of excellence in this area. [www.tuke.sk](http://www.tuke.sk)



**TuTech Innovation GmbH (TuTech)** was founded in 1992. As the central point of transfer of technology and knowledge in the Metropolitan Region of Hamburg, TuTech Innovation GmbH offers a wide variety of services to support innovation, besides being responsible for initiating and managing co-operation projects between academia and industry. [www.tutech.de](http://www.tutech.de)





**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.

[www.unitbv.ro](http://www.unitbv.ro)



**UCD (University College Dublin) - School of Agriculture, Food Science & Veterinary Medicine** - The mission of the School is to develop and apply science and engineering scholarship to problems in animal health and welfare, human health, food systems and agriculture for the benefit of society through excellence in teaching and research.

[www.ucd.ie](http://www.ucd.ie)



The **Università degli studi di napoli Parthenope - University of Napoli** is organized in five Faculties: Economy, Science and Technology, Law, Engineering, and Motorial Sciences, with about 18,000 students. An international PhD Programme in "Resources, Environment and Sustainable Development" is offered in English.

[www.uniparthenope.it](http://www.uniparthenope.it)



The **University of Maribor** is a broad-based institution committed to excellence in education, the extension of knowledge through world-quality research, and artistic expression. It will remain one of the leading academic institutions in Slovenia contributing to world-quality research in the arts and the sciences.

[www.uni-mb.si](http://www.uni-mb.si)



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.

[www.utwente.nl](http://www.utwente.nl)



The **University of Žilina**, founded in 1553, is the only university located in the north-western region of the Slovak Republic. The university contributes to the technological and operational development of transport and telecommunication systems, networks and services as the main conditions for the future economic and social development of the Slovak Republic.

[www.utc.sk](http://www.utc.sk)



The **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.

<http://energiewelten.tuwien.ac.at/>



Currently **Vilnius Gediminas Technical University (VGTU)** includes 8 faculties. The university takes an active part in the processes of developing a common environment for European Science and Studies.

[www.vgtu.lt](http://www.vgtu.lt)

## voestalpine

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**voestalpine Stahl Donawitz GmbH & Co KG** can look back upon more than 125 years of experience in steelmaking technology. Donawitz has been and continues to be one of the major names in Austria's Upper Styrian steelmaking tradition.

[www.voestalpine.com](http://www.voestalpine.com)

*"The benefit of eseia to us lies in an intensified cooperation between institutions and extended dissemination of results and activities."*

Gudrun Weinwurm,  
Research Centre for Energy and the Environment,  
Vienna University of Technology/ AT





## Looking to 2011

In order to fulfil its mission, **eseia** will focus on sharpening its profile and consolidating the alliance as a basis for successful enlargement. To establish **eseia** as a relevant international player and expand the visibility of **eseia**, we will concentrate our activities on five grand challenges:

1. **SYSTEMIC CHALLENGE** to establish **eseia** as a partner for European model regions,
2. **PARTICIPATORY CHALLENGE** to establish **eseia** as a partner to promote consumer involvement in innovation,
3. **TECHNOLOGY CHALLENGE** to develop renewable energy solutions from unconventional bio-resources,
4. **EDUCATION CHALLENGE** to establish an **eseia** training brand, and
5. **MANAGEMENT CHALLENGE** to raise the visibility of the organisation.

Challenges		Activities	Aims	Objectives	Lead Organisation
Systemic	1	Expert panel on Regions	Establish <b>eseia</b> as a partner for European model regions	Identify experts and design implementation concepts	FBK
	2	RECAP		The RECAP project will investigate the unique challenges European cities are facing and propose new sustainable urban planning scenarios	TU Graz
	3	Central Europe		to provide a detailed concept of utilization of renewable energy sources containing concrete directions about economic growth and sustainable development on regional level	Hungarian Ministry of Economics
	4	Lobbying <b>eseia</b> Regions		establish partners in the regions for <b>eseia</b> renewable energy concepts	<b>eseia</b> Management
Participatory	5	Expert panel on Consumer Participation	Establish <b>eseia</b> as a partner for European regions and to promote consumer involvement	Identify experts and design implementation concepts	University of Twente
	6	EUSEW Smart Energy Regions of Tomorrow		<b>eseia</b> participation in European Sustainable Energy Week (EUSEW), involving young people in discussion on the energy future of European regions	<b>eseia</b> Management
Technological	7	Expert Panel on biore-sources	Establish <b>eseia</b> as a leader in systemic approach to biore-sources	Identify experts and design implementation concepts	TUHH
	8	Develop the <b>eseia</b> Platform 2 on Energy Provision		Bio-Carbon Capture and re-utilisation: biofuels from flue gas, source to use biomass value chain optimization and intelligent wind energy systems	TUHH



*“eseia has a dedicated management team with a Secretariat based in Graz and Brussels that keeps the alliance running with maximum effectiveness and impact.”*

Hans Sünkel, President of eseia

Challenges		Activities	Aims	Objectives	Lead Organisation
Educational	9	eseia Sustainable Energy Education and Training Platform	Establish an <b>eseia</b> education and training brand	Participation in TU Graz LLL platform STYRIAN ACADEMY for Sustainable Energies	TU Graz
	10	RENERTech (ITN)		RENERTech will provide excellent training opportunities for Early Stage Researchers (ESR)	TU Graz
	11	IAPP		Industry-academia mobility training programme initiated by BRP Powertrain	TU Graz
	12	Joint new Curricula		Establish new competitive international curriculum for practitioners in sustainable energy	Akershus University
Management	13	Advisory Board	Establish <b>eseia</b> as a relevant international player and expand the visibility of <b>eseia</b>	Set up new Advisory Board with key representatives from all major European and international organizations	<b>eseia</b> Management
	14	<b>eseia</b> organisation building		Enhance functioning of Brussels and Graz Offices, <b>eseia</b> Brussels Newsletter Service, Annual Report 2010, interactive web-site	<b>eseia</b> Management
	15	Lobbying European institutions		Set up meetings and invite EC representatives as guest speakers to <b>eseia</b> events	<b>eseia</b> Management
	16	COST		Six COST actions: Bioenergy certificate, Energy Grid Link, Biobusiness Models, Bioresource Flow Management, Sustainable Living, Algae Biomass Refinery	IFZ, FBK, UT, TU GRAZ





european sustainable energy  
innovation alliance



#### Contact eseia

european sustainable energy innovation alliance  
(eseia)

President: Hans Sünkel

Secretary General: Brigitte Hasewend

#### **eseia Secretariat Graz Office**

c/o TU Graz

International Sustainability Partnerships (ISP)

Schlögelgasse 9/I, A-8010 Graz, Austria

T. +43 / 316 / 873 – 5281

F. +43 / 316 / 873 – 5282

office@eseia.eu

#### **eseia Brussels Office**

Avenue de Tervuren 84

B-1040 Brussels, Belgium

office@eseia.eu

#### eseia Homepage

More information about **eseia** members and  
activities are available on our website.

[www.eseia.eu](http://www.eseia.eu)

Responsible for content:  
Brigitte Hasewend, **eseia** Secretary General

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