Annual Report 2020

eseia

european sustainable energy innovation alliance

Message from the President of eseia

Harald Kainz
President of eseia

eseia Working Groups are the engine of eseia activity. I fully support them as do my colleagues of the eseia Governing Council.

I am pleased to present the eseia Annual Report 2020.

It was a difficult year for eseia as well as for her member organisations marked by severe affects of the covid crisis. However, our organisations have proven to be robust vessels in the storm. We were able to rely on our people who are more committed than ever to making good things happen in research, education, and innovation. They have embraced the opportunity of digital interaction at times of social distancing. The transformation processes that followed suit in all areas of our lives, have greatly ***strengthened our organisations for the future****.*

Following the Covid crisis, the European Commission came up with an EU recovery package that prioritises investment into a sustainable future. 'Next Generation EU' will be investing 25% of the total EU budget into climate action. In this context, more than € 95 billion will be invested for R&I framework programme ***Horizon Europe*** *2021-2027 alone. Despite Brexit, our British friends will continue to participate in the programme, which is good news.*

According to the eseia Strategy 2030, the eseia Working Groups worked hard to prepare for Horizon Europe and the European Green Deal. A total of ***eight proposals*** *were submitted this past year which* ***enhanced the eseia portfolio*** *considerably. eseia* ***strengthened partnerships*** *in the EU and established new ones abroad, including with African R&I communities. With RE4Industry, eseia embarked on a* ***new EC funded project****, supporting renewables in energy intensive industries.*

As in past years, eseia also invested in its ***Education and Training Programme*** *offering two training courses, a Student Camp hosted by UTwente and the ISS hosted by Savonia UAS.*

I thank the eseia Working Group Coordinators and the Focus Group Leaders, the organisers of the eseia training events, and last but not least, the eseia Coordination Team for their achievements in the past year. Keep up the good work!

Graz, December 2020

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Brigitte Hasewend
eseia Director

2020 marks a step change in European R&I cooperation. European science has moved centre stage. We can be proud of the achievements of our excellent researchers who have worked incessantly to create a vaccine to overcome the virus pandemic. I trust that if we summon our energies, we will be equally successful fighting the climate crisis.

About eseia: Vision & Mission & Strategy 2030

eseia Approach

During the eseia Strategy 2030 process carried out in 2019, the eseia Members had confirmed the vision, mission and approach of the organisation as follows:

VISION

The vision of eseia is to be the first European address for sustainable energy systems innovation.

MISSION

By 2030 eseia will have enabled Europe to reach its energy targets by contributing research, education and training on innovative sustainable energy systems.

APPROACH

eseia´s expertise and activities focus on the creation of international full value chain partnerships, management of EC projects, organisations of interdisciplinary expert panels, entrepreneurial education and training, and awareness raising among European citizens.

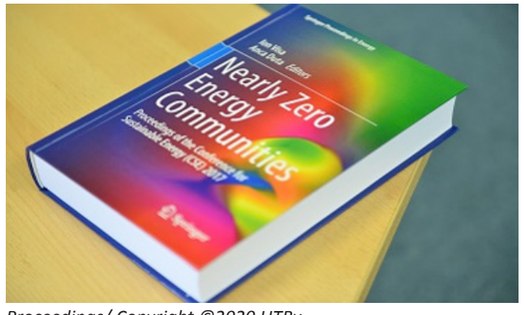
STRATEGY 2030 IN A NUTSHELL

In the coming years eseia Members wish to develop the eseia added value further by:

1. **Enhancing the impact of the eseia Working Groups to facilitate the realisation of projects:** 'cooperation works best when experts in a field take responsibility';
2. **Reaching unrealized potential** of all member organisations by recruiting new colleagues and bringing in novel ideas and approaches;
3. **Establishing clarity in the process:** better communication among members, clear information to members and experts.

Anca Duta speaking at the eseia Online Panel on Climate Education / Copyright ©2020 eseia

4th eseia Conference: Solar Conversion in Communities



Proceedings/ Copyright ©2020 UTBv

Vice-President Ion Visa/ Copyright ©2020 eseia

Thanks to the UTBv Conference Team headed by Ion Visa and Anca Duta, the 4th eseia Biannual Conference was held successfully online, 22-24 October eseia Members participated in three days of great discussion on **Solar Energy Conversion in Communities**. As an outcome of the conference, the proceedings of the **Conference for Sustainable Energy (CSE) 2020**, were published. The host eseia Vice-President Ion Visa welcomed the participants followed by eseia Director Brigitte Hasewend who delivered a plenary presentation on the European Green Deal and the Promotion of Sustainable Energy Research and Innovation Partnerships.

During the eseia Conference the eseia Director hosted the **eseia online Panel on Climate Education** chaired by **Anca Duta**, UTBv, RO, Head of eseia WG Education & Training. In her introduction she focused on her experience in research teaching. For UTBv cooperation with pre-university structures was a major concern.

Efforts included visits of pupils in the UTBv's own RESREC Centre for experimental and demonstration activities. She also highlighted the need of joint activities with high school teachers and the development of cooperative training with energy communities.

Gabriela Martínez Sainz, UCC, IE presented the conclusions from the ALLEA report on climate change education initiatives in Europe that showed a lack of knowledge of young people age bracket 17-21 and the need to link education more to recent research results.

Michael Krobath, CEO, UBZ, AT gave a presentation from hands-on experience teaching kids. One example of best practice presented was a climate simulation game, which enables students to act as decision-makers to implement climate protection measures in a particular region. Mr. Krobath stressed that next to knowledge and value creation, climate education should also be about joint action.

eseia Working Groups

Mission

- Identify R&I trends and gaps;
- Strengthen strategic full value chain partnerships around novel ideas in Europe and other world regions;
- Participate in EC policy-making;
- Ensure funding for new EU projects not only short-term but also mid- and long term;
- Lead the development of and deliver inputs for proposals;
- Get involved in capacity-building by contributing to the eseia ETP; and
- Participate in dissemination, communication, and exploitation work.

Benefits for Members

- Enhancing their visibility in the international energy community;
- Sharing knowledge and expertise cross-sectors and internationally;
- Actively participating in eseia project proposals and meetings.

eseia experts database

If you wish to get involved, you are welcome to inform the WG Coordinator and the eseia Team about your intention. You will be asked to check out the WG Terms of Reference which include an overview of the WGs' aims, their realm of activities, explain your benefits, and outline the Work Programme 2021. Contact: office@eseia.eu.

Three Thematic Working Groups

WG 1 Biorefineries, Biobased Economy and Bioresource Utilization
Coordinator: M. Bongards, TH Cologne, DE

The aim of WG 1 is to create novel biorefinery value chains and develop new biobased industrial products to provide a framework to contextualized and rational use of bioresources focusing on the role of bioenergy systems innovation and bioeconomy in the energy transition. The WG will also explore usage scenarios for biobased fuels and biowastes. WG1 integrates three focus groups (FG):

FG 1: Biorefineries and Biobased Industrial Products
(FG Leader: L. Duarte, LNEG, PT)

FG 2: Bioeconomy and Circular Economy
(FG Leader: M. Bongards, TH Cologne, DE)

FG 3: Bioenergy use of biobased fuels biowastes as energy solutions to those related problems
(FG Leader: M. Huhtinen, Savonia UAS, FI)

WG 2 Energy Transition in Urban Regions
Coordinator: G. Krajačić, Unizg FSB, HR

Since most people live or work in agglomerations, eseia is concerned with energy transition in cities and their hinterland. Sustainable energy transition requires the active participation of European citizens for radically new ways of how we organise sustainable climate friendly living in a carbon-free society. WG 2 integrates four focus groups (FG):

FG 1: Smart Mobility
(FG Leader: M. Hirz, TU Graz, AT)

FG 2: Smart Grids
(FG Leader: R. Schürhuber, TU Graz, AT)

FG 3: Smart Energy Efficient Buildings
(FG Leader: G. Stauskis, VGTU, LT)

FG 4: Advanced Computing for Energy Transition
(FG Leader: G. Papa, JSI, SI)

WG 3 Smart Energy Materials
Coordinator: T. Zuzek, JSI, SI

WG 3 addresses the synthesis, processing and application of smart energy materials to be used for improving the energy efficiency of renewable energy systems. The transition in energy production requires a new emphasis on research for more stable, low-power and distributed energy sources that are inexpensive, highly reliable, require no upkeep, and may not depend upon connection to electrical grids. This WG includes three focus groups (FG):

FG 1: materials for energy harvesting systems

FG 2: materials for energy storage

FG 3: materials for automotive applications

Two Horizontal Working Groups

WG4: Governance, Business Models and Legal Frameworks
Coordinator: M. Heldeweg, UTwente, NL

This working group focuses on the challenges that energy transition brings about in terms of radical shifts in governance, social and business models and related regulatory and legal regimes. To foster the transition, the functioning of multi-actor networks, multi-level relations, and energy ecosystems needs to be improved. Institutional barriers need to be overcome and new opportunities and incentives created. The interaction between all stakeholders needs to be explored.

WG 5 Education and Training
Coordinator: I. Visa, UTBv, RO
Co-Coordinator: A. Duta, UTBv, RO

WG 5 fosters capacity-building of people and institutions in Europe and abroad. It conceives and implements cooperative training courses under the eseia ETP. These cooperative training formats benefit students, young scientists and professionals already active in the field by linking practice and education. They are implemented in cooperation with the eseia industrial partners and hosted by eseia members.

Project Aquisition

In total, eseia bid for **eight proposals** with close to € 30 Mio. of which € 1,7 Mio. for eseia in 2020. In 2020 the eseia Team coordinated two proposals and participated in another six led by the eseia Working Groups. Since March 2020 many WG meetings were hosted online due to covid-19 by the eseia Team.

WG 1

NEXTMET (Next Generation Cleaner Methanol Production from Emitted CO2) proposes a ground breaking photoelectrochemical (PEC) technology to produce methanol from emitted CO2 and water powered by direct sunlight. Proof of concept of NEXTMET technology will be undertaken and validation of this technology will be carried out at lab scale. Two promising process routes will be investigated.
Coordinator: **Ana Machado, NOVA ID FCT, PT**

WG 2, FG1

SUMRISE (Smart Urban Mobility Research and Innovation Systems Exchange) directly answers to the need for qualified researchers and professionals in Europe to address the urgent mobility challenges European urban regions now face. A well-established, highly multidisciplinary SUMRISE consortium coordinated by the European Sustainable Energy Innovation Alliance approaches this urgent challenge by offering highly effective cross-sector training opportunities for researchers from 12 academic partners and six European businesses.
Coordinator: **Richard Wheeler, eseia, AT**

WG 1

The **FullFrac (Full Conversion of lignocellulose into high-value products by innovative fractionation)** approach is based on an innovative biorefinery concept that uses a sequential biomass pre-treatment strategy– continuous hot water extraction (HWE) followed by a continuous ethanol organosolv extraction (EOE) for wood and a sequence of EOE / HWE / EOE for bark. This sequential extraction strategy enables the selective separation of all biomass components: extractives, hemicellulose, and lignin, keeping the high quality of cellulose for existing production chains.
Coordinator: **Anton Friedl, TU Vienna, AT**

WG 2, FG 1

HolistMo (Holistic Mobility Concept Development based on Advanced Data Solutions) has been conceived to introduce a new approach of mobility-related big data processing to support the development of solutions to urban mobility challenges.
Coordinator: **Mario Hirz, TU Graz, AT**

New EC funded project

RE4INDUSTRY
Renewable energies for industries

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 952936.

Aim: to identify, assess, and integrate renewable energy solutions in energy-intensive industries
Coordinator: CIRCE Foundation, ES
Period: 1 Sept 2020 - 31 Aug 2023
Total Funding: € 3 Mio., eseia share: € 170,000
Funding Source: Horizon 2020, Market Uptake Support

WG 2 + WG 4

The **PEACE (Promote Energy Transition through public Authorities Capacity building and Energy communities)** proposal will develop an organisation model where Public and citizens can invest together in renewable sources and the energy of private plants can be shared. The presence of a PA (Public Authorities) as a member of the energy community can influence decisions on re-investment of benefits generated towards activities foreseen in the Sustainable Energy and Climate Action Plan (SECAP) and finally promote the setup of new energy communities.
Coordinator: **AzzeroCO2, IT**

WG 3

NEWPORT

Through the project **NEWPORT (Reshaping the Sustainable Cement Production Ecosystem with Alternative Mineral Resources)**, the cement industry will be transformed by developing a blueprint for a flexible circular economic model of an energy- and resourceefficient, carbon-neutral cement production ecosystem. Coordinator: **University of Ljubljana, SI**

WG 2, FG 2

DREAM (Demand Response Energy Application Model) targets the call "Consumer engagement and demand response", putting consumers/prosumers at the centre of the energy market, by specifically developing and testing novel solutions and tools for demand response and energy services, using real consumption data and feedback from the testing of services with the objective to improve predictability of consumption and consumer behaviour. Coordinator: **Universiteit Utrecht, NL**

WG 1 + WG 5

BBI4Europe

The **BBI4Europe (BBI Education for Europe)** focusses on the potential of the bio-based industry to address interconnected societal challenges such as food security, natural resource scarcity, fossil resource dependence and climate change, while also achieving sustainable economic growth. However, this cannot be done without support by universities and research institutions as bio-based industries develop quickly and need constant skills and education matching.
Coordinator: **Richard Wheeler, eseia, AT**

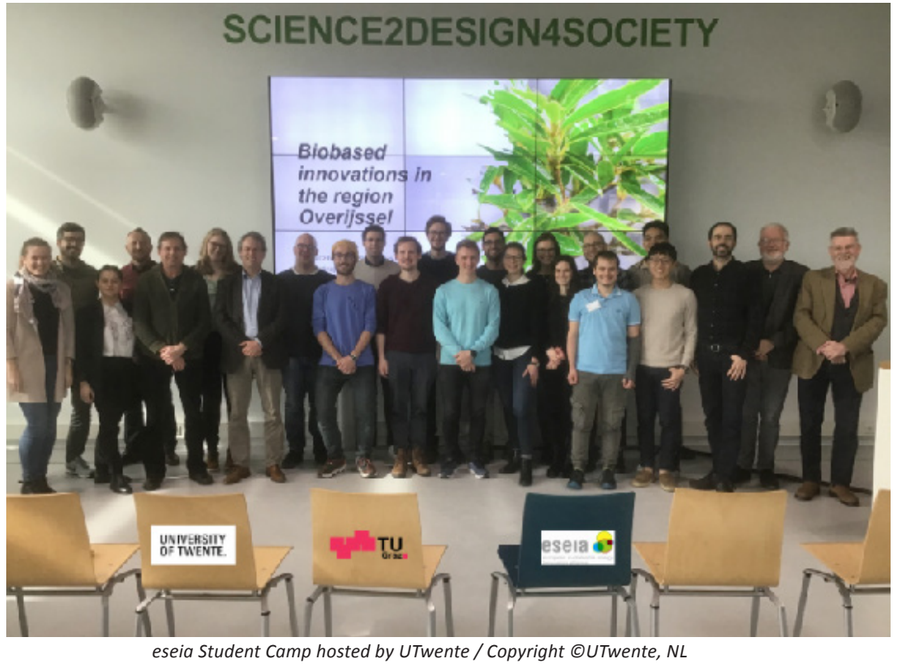
Within the framework of the ETP, eseia organized two training events benefiting a total of 35 participants in 2020.

eseia Student Camp hosted by UTwente

The Student Camp organised in the aftermath of eseia coordinated H2020 project BET was hosted by the UTwente form 24 to 28 February. The venue was the Designlab at the UTwente campus, a vibrant location for creativity and innovative ideas. A total of 18 participants from AT, DE, IE, RO, TK, and ID studied and experimented with innovative solutions for real-life challenges of the regional bio-based economy.

Under the supervision of **Maarten Arentsen from UTwente, NL**, and of **Wolfgang Bauer from TU Graz, AT**, the students worked in teams of three on different real-life challenges presented by organisations in the region of Overijssel, NL:

1. The first challenge was presented by **BEON**, the association of regional bioenergy industries, focusing on biobased innovations in the region;
2. The second challenge was delivered by the local energy cooperative **Lochem Energy** on the technical and economic feasibility of residential heat production in asphalt;
3. The third challenge was offered by the local primary league soccer club **FC Twente** on sustainable soccer. Students made recommendations on sustaining energy consumption in the stadium, transportation to and from the stadium and waste management during and after soccer games.



eseia Student Camp hosted by UTwente / Copyright ©UTwente, NL

The program of the eseia Student Camp included two excursions, one to the local soccer stadium and another to Twence Company.

Finally, the students presented their findings, which were received with great enthusiasm by the three organisations involved in the challenges.

eseia First Online International Summer School on Climate-Friendly BioEnergy Solutions

From 14 to 25 September eseia member **Savonia UAS organised the 1st eseia Online International Summer School** supported by Eastern Finland Universities including Karelia UAS. **Markku Huhtinen** welcomed 17 students from five EU countries and from Tanzania, AU. The students received a comprehensive overview of environmentally friendly bioenergy solutions. They also had the chance to apply their knowledge of adapting European environmentally friendly technologies in Tanzania. The two week programme consisted of lectures, company presentations, individual assignments, workshops, supervised group tasks, and presentation of group work results.

The eseia ISS 2020 covered the following three topics:

1. Soil improvement and circular fertilizer products based on industrial side streams and their processed mixtures;
2. Microbe-based biorefining accelerated composting system for biomasses, slow pyrolysis, and biogas production;
3. Possibilities to utilize ash for fertilizers, earth construction materials, and composites included in Biosphere topics.

During the presentations both European and Tanzanian perspectives were addressed. From Tanzania, Fahima Chamani from PFP project Malinga gave a presentation of Tanzanian forestry and bioenergy sectors.

In addition to forestry, a perspective of agriculture was also given thanks Prof. Reuben J.L. Mwamakimbullah (Sua Sokoine University of Agriculture) in which he looked at Tanzanian developmental agenda in areas of agriculture and forestry.

CO2 friendly working mode put eseia at members' fingertips

Digital interaction not only prevented the virus from spreading, it also reduced our carbon footprint in 2020. For this reason, eseia adopted a new digital work mode that put eseia at members' fingertips. Since the corona plague had continued throughout the year, eseia conducted all meetings on virtual platforms with even more participation of members and partners than ever before. The eseia meetings became more frequent and more effective at the same time. In total more than **60 events** were held online. The eseia Team spent more time on moderating, properly preparing meetings, and ensuring effective follow-up.

Communication and Dissemination

The eseia Working Groups contributed to dissemination and communication efforts undertaken by the eseia Communication Assistant in eseia media.
The following data give an overview of activities:

- eseia 10 Year Anniversary Report 2019 distributed to more than 600 recipients;
- Four eseia Newsletter editions;
- 50 news articles posted on websites and eseia media;
- Posts on Twitter, Facebook, and Linkedin.

Partnerships

In 2020, eseia worked on eight proposals and one new project (ref. Projects). eseia established an impressive array of partnerships. In total, eseia coordinated **77 organisations**, of which **50 organisations** outside of the eseia membership in 20 countries, of which 15 in the EU and five in other world regions (CN, IL, TH, TR, USA).

eseia Coordination Team

In February the eseia Coordination Team had moved to new rooftop offices with amazing views of the City of Graz. Shortly after the move, despite the covid crisis that hit in March, the Team continued to render high-quality services to members.

The **eseia Director Brigitte Hasewend** wishes to thank all of her Team 2020: **Tijana Jokic**, PhD, Project Manager, **Hana Lee**, Project Manager (based in Seoul, South-Korea), **Marina Lopez Ortega**, Communication Manager, **Miguel Rey-Mazon**, PhD, Exploitation Manager, **Marleen Moor**, Communication Assistant (based in Brussels), **Lisa Sebros**, Project Manager, **Thomas Suppan**, Financial Assistant, **Christina Tansek,** Office Manager (based in Graz), **Richard Wheeler**, Chief Acquisition Advisor (based in Iceland).

In the 17 November 2020 the eseia General Assembly, welcomed two new members, **Karelia University of Applied Sciences** (Karelia UAS), FI and **Tyndall National Institute,** IE.
By the end of 2020, eseia counted 27 members in 11 European countries, representing 14 Higher Education Institutions (HEI), four Research Organisations, and nine Businesses, coordinated by the eseia umbrella.

ADENE	The mission of the energy agency **ADENE**, PT is to develop activities of public interest in the area of energy, efficient use of water and energy efficiency in mobility.
BAV Bergischer Abfallwirtschaftsverband	**BAV**, DE is a public corporation within North Rhine-Westphalia of Germany and operator of the landfill Leppe. In the framework of the Metabolon project BAV and the University of Applied Sciences Cologne developed the landfill site into a waste to energy centre of competences.
The Cyprus Institute RESEARCH·TECHNOLOGY·INNOVATION	The **Cyprus Institute**, CY helps foster the development of a knowledge-based economy in Cyprus through cutting edge scientific research and education that has regional as well as international significance.
ENERGIEAGENTUR Steiermark	**Energy Agency Styria,** AT was created with the objective to increase the efficiency of the energy use and the use of renewable domestic sources of energy in the interest of the regional development policy, environment protection, and long term effectiveness.
ENERGIE STEIERMARK	**Energie Steiermark Technik GmbH**, AT is a daugther company of the fourth largest energy service company in Austria. The company produces energy from wind, water, sun, and biomass. It distributes electricity, gas, and heat, and trades energy. It establishes and keeps up the grid and offers innovative energy services in Styria.
FH JOANNEUM University of Applied Sciences	**FH JOANNEUM**, AT is one of Austria's leading universities of applied sciences with nearly 50 degree programmes including applied informatics, engineering, civil engineering and energy and transport, and international business. FHJ Energy Research Institute has more than 20 year of experience.
Graz ENERGYAgency	The City of Graz Energy Agency **GEA, AT** develops a broad range of sustainable concepts and services for mobility, buildings, and energy systems. GEA is a service centre for research on energy saving, increased efficiency, and the use of renewable energies.

eseia Members

Green Tech Cluster Styria, AT is a globally leading innovation cluster in energy and environmental engineering regrouping 200 companies in the Green Tech Valley, Styria. Services focus on innovation, know-how transfer, and new markets to further extend technology leadership.

The Energy Efficiency Centre at the **JSI**, SI covers the fields of efficient energy use, long term planning in energy and for the reduction of greenhouse gases emissions and air pollutants.

Within the context of eseia, the specific expertise of **Karelia UAS**, FI is in sustainable energy and bioeconomy, including distributed renewable energy systems, energy efficiency, low carbon wood construction and forestry.

KFUG, AT offers a Joint Degree in Sustainable Development. KFUG is also known for coordinating Sustainability4U, a lecture series of all Graz based HEIs. In sustainability research KFUG hosts a Christian Doppler Lab for Sustainable Product Management for a Circular Economy.

LNEG, PT is a Portuguese government research laboratory for energy and geology. LNEG provides research and innovation for solutions relating to a carbon free Europe.

PLANUM GmbH, AT is a transport consultancy with special expertise in mobility and spatial urban planning with a view to environmental impact.

RIC, AT is a Regional Innovation Center, affiliate of BRP Rotax, leader in the development and production of innovative high performance Rotax engines for BRP products as well as for motorcycles, karts, ultra-light and light aircraft.

Savonia UAS, FI, based in Kuopio with its Varkaus campus Energy Research Centre, is an integral part of Finland's largest and internationally recognised energy cluster focusing on environmental friendly combustion and energy production technologies.

Science Park Graz, AT is a publically funded institution promoting high-tech business incubation. Science Park also runs ESA BIC Austria for space-enabled innovation.

TU Dublin, IE works in many fields of renewable energy innovation research and education. TU Dublin delivers Ireland's main Master's Programme in Sustainable Development, with related programmes in Energy, Spatial Development, and Environmental Health.

TH Köln, DE sees itself as University of Technology, Arts and Sciences. With its trans-disciplinary and cultural diversity and openness, TH Köln's activities are aimed at cultural and technological breakthroughs of high societal relevance.

With 3,500 staff and 13,000 students **TU Graz**, AT has achieved excellence in the areas of the built environment and energy infrastructure, sustainable mobility as well as ecological and societal research linked to innovative energy systems.

The research focus point 'Energy and Environment' of **TU Vienna**, AT comprises more than 80 research groups from eight faculties and pursues a technologically and interdisciplinary approach, providing integrated solutions.

Tyndall National Institute, IE has great expertise in the field of sustainable energy systems, energy materials and in energy policy amongst other areas.

Connecting natural sciences, engineering and economic sciences, **BOKU**, AT wishes to increase knowledge of the ecologically and economically sustainable use of natural resources, to provide a harmoniously cultivated landscape.

University of Twente, NL 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.

With 29 Faculties **UZagreb**, HR, is the flagship educational institution in the country and region, a place where more than 4,000 researchers and 70,000 students develop knowledge and acquire skills. Both faculties FSB and FTB are most active in eseia.

UTBv, RO was founded in 1940 and is one of the largest universities in Romania, counting 15 faculties. It is known for its High Tech Energy Campus. The focus both in teaching and research is on sustainable systems in communities.

VGTU, LT includes eight faculties. The university is a member of the Lithuanian Green Building Council which regroups industrial partners on the topic of smart sustainable buildings. Among others, VGTU research also covers sustainable mobility systems.

XAMK, FI has 750 staff members and 9,000 students. The focus areas of XAMK UAS are Digital Economy, Forest, the Environment and Energy, sustainable well-being, Logistics and Marine Technology & Transport and Creative Industries.

eseia General Assembly

The GA is the highest decision-making body and consists of one representative from each member organisation. The GA votes on decisions proposed by the Governing Council twice a year.

eseia Governing Council

Harald Kainz

TU Graz, AT

President

Teresa Ponce de Leão

LNEG, PT

Vice-President, Record Keeper

Brian Norton

TU Dublin, IERC, IE

Vice-President, Treasurer

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Spomenka Kobe

JSI, SL

Vice-President

Costas Papanicolas

CYI, CY

Vice-President

Brigitte Hasewend

eseia, AT

Director

eseia 1st Virtual Business Meeting, 7 April 2020

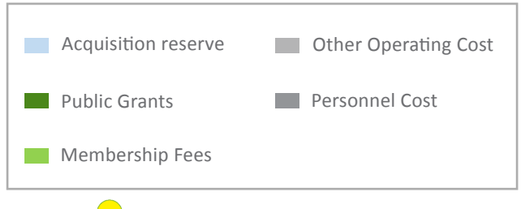
7 April 2020 eseia held her 22nd Governing Council and General Assembly Meeting, the first GA held online. Despite the Covid-19 crisis, a total of 24 eseia members from 14 member organisations participated in the event. They decided to adopt the eseia Anniversary Report 2019 and the eseia Audited Accounts of 2019, and the Accounts 2020 Q1. The main focus was on activities of the eseia Working Groups. WG Coordinators and Focus Group Leaders were presented their achievements and future goals.

eseia 2nd Virtual Business Meeting, 17 November 2020

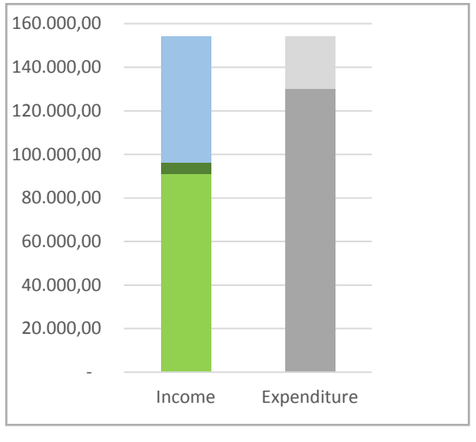
17 November marked the 23rd General Assembly Meeting, which gathered more than 40 participants from 17 organizations in 12 countries. The GA welcomed two new Board members, Spomenka Kobe from JSI and Costas Papanicolas from CYI. The main part of the GA meeting was dedicated to the eseia Work Programme and Budget 2021. The eseia Working Groups presented the Progress Report 2020, which included a presentation of the 4th eseia Conference, eight proposals submitted, and two training events carried out.

Audited Accounts 2020

In 2020 the total eseia revenue was € 96,000 of which 91,000 from membership fees and 5,000 from project income from RE4Industry. Total expenditure was € 154,000, of which € 130,000 for personnel cost and € 24,000 for other cost. The balance of € 58,000 had to come out of the acquisition reserve built in previous years.



Income / Expenditure 2020



Brussels Links Reinforced

Jürgen Tiedje speaking at eseia Business Meetings / Copyright ©2020 eseia

EU Update: Horizon Europe

As part of the GA, eseia organized an EU Update 17 November. Jürgen Tiedje, Head of Unit, EC gave an overview of Horizon Europe, especially in relation to LEIT and NMBP. J. Tiedje focused on examples of partnerships with industries, such as SPIRE under Horizon 2020.

Under **Horizon Europe**, the hubs for circularity are foreseen as a mechanism to achieve twin transition and to act as a stepping stone towards climate neutrality and circularity in industry. Processes4Planet is a potential cross-sectorial partnership, gathering 10 process industries and sector associations, SMEs, RTOs, NGOs, regions, and others.

European Partnerships

The eseia Director Brigitte Hasewend outlined relevant **European Partnerships** in Climate, Energy and Mobility, Partnerships in Bioeconomy and Natural Resources, but also Partnerships across Themes which were open for participation.

EU-AU Partnerships

In 2020, eseia took an effort to establish a portfolio of green transition demo projects with African countries. The main idea revolved around the concept of sustainable communities producing energy from renewables and developing adapted usage scenarios.

Looking to 2021

#	WGs	Call/Topic	Action	Mio €
1	WG 1 BIORESOURCE UTILIZATION	Horizon Europe: potential resubmission of FullFrac: **Full conversion of lignocellulose into high value products** by innovative fractionation.	IA	5
2		Horizon Europe C5-D3-RES-11-2021: **Carbon-negative biofuel production**: resubmission of NEXTMET - Next Generation Cleaner Methanol Production from Emitted CO2, to produce methanol from emitted CO2 and water powered by direct sunlight.	IA	5
3	WG 2 ENERGY TRANSITION	Green Deal Call: ID: LC-GD-2-3-2020: Accelerating the green transition and energy access **Partnership with Africa** and Horizon Europe C5-D3-RES-29-2022: **AU-EU Energy System Modelling**: R&I, 2-3 Mio.	IA	5-10
4		Horizon Europe: potential resubmission of PEACE - Promote **Energy transition through public Authorities Capacity building** and Energy communities.	CSA	1,5
5		Horizon Europe: Resubmission of SUMRISE **Sustainable Urban Mobility** Research and Innovation Systems Exchange.	MSCA-RISE	1
6		Horizon Europe: C5-D4-BEE-06-2022: **Demand-response in energy-efficient residential Buildings.**	R&I	2-3
7	WG 3 SMART ENERGY MATERIALS	Horizon Europe: C5-D2-BT-04-2022: **Novel solar energy harvesting materials and applications.**	R&I	2-4
8	WG4 GOVERNANCE, BUSINESS MODELS, LEGAL	Horizon Europe C5-D2-CS-12-2022: **Multi-sectoral governance, new business and finance models** for transition to urban sustainability and climate neutrality.	RIA	7
9	WG5 EDUCATION AND TRAINING	Green Deal Call: LC-GD-10-3-2020: **Enable citizens to act on climate change.**	IA	3-5
10	WG1 AND WG 5	Horizon Europe: Potential resubmission of BBI4Europe - **BBI Education for Europe.**	CSA	1,5

eseia

european sustainable energy innovation alliance

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