

ANNUAL REPORT 2023

THE EUROPEAN COUNCIL
OF ACADEMIES OF APPLIED SCIENCES,
TECHNOLOGIES AND ENGINEERING



Euro-CASE

Academies of Engineering Sciences



Euro-CASE
Academies of Engineering Sciences

Established in 1992, the European Council of Academies of Applied Sciences, Technologies, and Engineering (Euro-CASE) is an independent, non-profit organisation comprising national academies of applied sciences, technologies, and engineering from 22 European countries. Euro-CASE serves as a permanent forum for exchange and consultation between European institutions, industry, and research.

Through its affiliated academies, Euro-CASE has access to top expertise – **more than 6,000 of Europe's most eminent engineers and technologists** – and provides impartial, independent, and balanced advice on technological issues with a clear European dimension to European institutions, national governments, companies, and organisations.



The Netherlands Academy of Engineering has officially become a member of Euro-CASE in 2023

[More info: https://nae.nl/](https://nae.nl/)

On the photograph (from left to right):

- **Roel Meeuwesse**,
Head of Office NAE
- **Tuula Teeri**,
Chair of Euro-CASE
- **Eloy Alvarez Pelegry**,
Vice Chair of Euro-CASE
- **Antonio Colino**,
President of the RAI
- **Patrick Maestro**,
Secretary General of Euro-CASE

EURO-CASE EXECUTIVE COMMITTEE IN 2023



Tuula TEERI
Chair

Royal Swedish Academy of Engineering
Sciences (IVA)
Sweden
www.iva.se



Tim CHAPMAN
Treasurer

The Royal Academy of Engineering
(RAEng)
United Kingdom
www.raeng.org.uk



Patrick MAESTRO
Secretary General

National Academy of Technologies of
France (NATF)
France
www.academie-technologies.fr



Eloy Alvarez PELEGRY
Vice Chair

Real Academia de Ingenieria (RAI)
Spain
www.raing.es



Jari HÄMÄLÄINEN

The Council of
Finnish Academies (CoFA)
Republic of Finland
www.academies.fi



Stane PEJOVNIK

Alternate
Slovenian Academy of
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Slovenia
www.ias.si



Jan WÖRNER
Invitee

National Academy of Science and
Engineering (acatech)
Germany
www.acatech.de

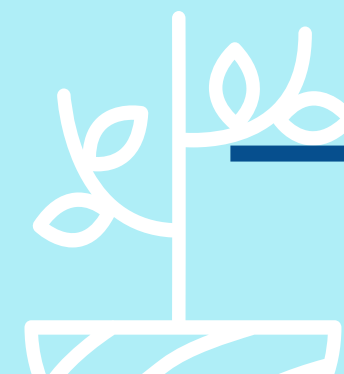


The **Euro-CASE Board** includes Presidents and Honorary Presidents of individual national member academies:

- Prof. Miklós BENDZSEL
Hungary (HAE)
- Prof. Geir Egil Dahle Øien
Norway (NTVA)
- Prof. Benoit Dubuis,
Switzerland (SATW)
- Sebastião FEYO DE AZEVEDO
Portugal (PAE)
- Seamus MC KEAGUE
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- Prof. Mihai MIHAITA
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- Prof. Vedran MORNAR
Croatia (HATZ)
- Dr. Mark PLESKO
Slovenia (IAS)
- Prof. Tuula TEERI
Sweden (IVA)
- Prof. Dr. Jan WÖRNER
Germany (acatech)

Euro-CASE staff:

- SAPEA Scientific Policy Officer,
Marie FRANQUIN
- Euro-CASE Executive Assistant,
Nadia PIPUNIC



Euro-CASE: A renewed strategy and exciting new subjects

EDITORIAL

by Tuula TEERI & Patrick MAESTRO



The year 2023 was an exceptionally active one for Euro-CASE, with significant contributions from all our member academies. We focused on deep reflections, a revision of our strategy and communication, and the launch of new collaborative initiatives. Euro-CASE's objectives are now clearly prioritized **to strengthen the role of engineering sciences and technology for the benefit of European society.**

We remain committed to building a strong brand as an independent and recognized organization for scientific expertise and advice at both national and European levels, dedicated to serving European stakeholders and society at large. A revised and focused presentation of Euro-CASE is now available as a communication package for all academies. We also have a new motto, *"Academies of Engineering Sciences,"* along with a clear mission statement: *"Fostering European excellence in technology, engineering sciences, and practice, for the benefit of European society."*

We initiated several strategies to strengthen our brand and visibility. These include presenting Euro-CASE as a network, highlighting the activities of member academies and advocating for Euro CASE at both national and European levels by organizing outreach events. A strong focus is placed on fostering interactions between member academies through the regular sharing of information about their activities, as well as organizing workshops and platforms. **The Euro-CASE network is particularly committed to enhancing the mutual benefits of inter-academy collaboration.** Each academy can leverage the global strength of the network, with shared experiences serving as a driving force.

Through these active exchanges, we have launched several new initiatives, to be implemented in 2024, including critical raw materials, innovation in small and medium-sized enterprises, and engineering diplomacy.

Our network continues to be **an active member of SAPEA**, contributing into the Science Advice Mechanism (SAM) of the European Commission. Euro-CASE has contributed to the development of new communication strategy, working closely with the European Commission's Chief Scientific Advisors. Additionally, Euro-CASE has been involved in all the work packages, including leadership on the Evidence Review Report on "Artificial intelligence for R&I". The report was highly regarded by the European Commission, which integrated the SAPEA recommendation for a "CERN for AI" into the President's project.

We have also focused on **expanding our network, engaging** with academies that are not yet part of Euro-CASE with the goal of including them as members in 2024. Our 2023 Annual Conference in Madrid was a great success, addressing "Energy Challenges in Europe" and the role of engineering in securing energy supplies and technologies. The conference also provided an opportunity to introduce Euro-CASE to new and potential member academies.

A key priority for Euro-CASE is investing in youth, with the aim of attracting young people to study and pursue careers in engineering. We are actively involved in initiatives that engage early- or mid-career professionals, such as "Frontiers of Engineering" (in collaboration with the US National Academy of Engineering), and our annual conference. We have also established a strong connection with YATSI (the Young Academy of Technology, Science, and Innovation) which is established by the Danish Academy of Technical Sciences (ATV) as a new scientific academy for young talented researchers and engineers working within Danish academia and industry.

2024 is the year of consolidation of the strategic actions initiated in 2023, while launching new projects focused on sustainability (environmental impact, bio-sourcing, etc.)

We thank our members and supporters for active participation over the past year and look forward to your continued engagement during this period of significant challenges, where solutions will depend on engineering and innovative new technologies.



Scientific Advice, evidence reviews and other scientific inputs

The SAPEA project began in 2016 with funding from the EU’s Horizon 2020 framework programme and has since continued its activities under the Horizon Europe framework programme. SAPEA comprises Academia Europaea (AE), ALLEA, Euro-CASE, FEAM, and YASAS (as of 2022), representing over 120 academies in more than 40 European countries.

SAPEA reports present the best available and most up-to-date scientific and technical evidence, including highlighting any uncertainties, gaps, and contradictions in scientific knowledge to ensure trust and accuracy. The Evidence Review Reports (ERRs) are prepared by fellows and experts from the member academies of the SAPEA networks and feature rigorous, contemporary scientific content.

In May 2023, the European Commission renewed and approved the Commission Decision on the establishment of the High-Level Group of Scientific Advisors. A notable update was introduced, allowing the Science Advice Mechanism (SAM) to respond to requests from the European Parliament and the Council, in addition to those from the European Commission.

In 2023, SAPEA published an Evidence Review Report, with the support of its member academies. **Euro-CASE was actively involved in this report and also led the process of updating the SAPEA quality assurance guidelines.** These guidelines ensure the excellence, independence, and transparency of the methods used to prepare these reports and the scientific advice provided to the Commission.

Joint communications within the SAM

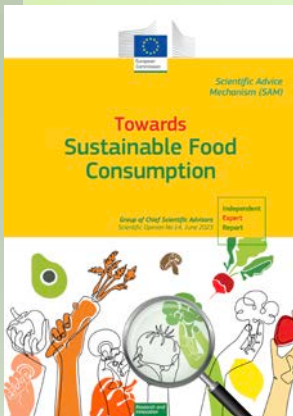
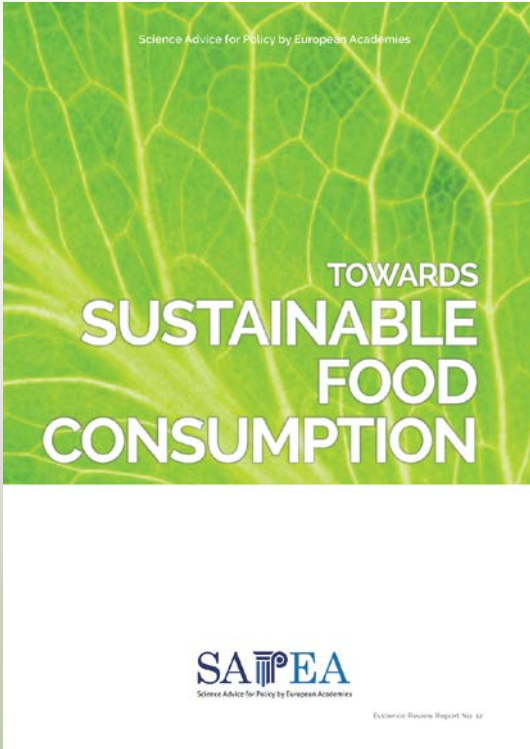
In December 2022, SAPEA adopted a new communications strategy that outlines common objectives, audiences, messages, and activities shared by SAPEA and the Group of Chief Scientific Advisors, in coordination with the European Commission RTD.02 Unit (SAM Secretariat), forming the Science Advice Mechanism. SAPEA and the Advisors now operate under a single «Scientific Advice Mechanism» (SAM) brand for their external communications. A new visual identity for SAM has been developed, including a new website, logo, signage, and other branding elements. The new website and visual identity were launched in October 2023. <https://scientificadvice.eu/>

Update of the SAPEA quality assurance guidelines

In 2022, SAPEA established a working group and a staff task force to evaluate, revise, and further develop its existing quality assurance guidelines. **Euro-CASE is leading this effort for SAPEA and appointed Jan Wörner, President of acatech, as chair of the working group.** The guidelines ensure the excellence and independence of SAPEA’s scientific advice through a high level of transparency. After several working group meetings and contributions from the task force, the updated guidelines were published in September 2023 and are available on the SAM website. <https://scientificadvice.eu/how-we-work/how-we-gather-evidence/>

Survey of academies and their practices of science advice

In 2022, SAPEA established a working group and a staff task force to develop a survey aimed at gathering information about the academy landscape in Europe. Euro-CASE is leading this effort for SAPEA and appointed Elin Elliot, Head of the External Relations Unit at IVA, as chair of the working group. These activities leverage the SAPEA network to gain a deeper understanding of the diversity within the academy landscape in Europe. The survey was conducted in 2023 and received 112 responses from academies and learned societies across Europe. The results will be summarized in a report to be published in June 2024.



Towards sustainable food consumption

The evidence review report Towards sustainable food consumption **has been officially launched in June 2022.**

The following **two candidates, nominated by Euro-CASE academies,** were selected to participate in the expert workshop:

- Edel ELVEVOLL (NTVA)
- Christine CHERBUT (NATF)

Euro-CASE also led the peer-review process in coordination with the lead network, ALLEA.

— Our current food system has a significant impact on the environment, and poor-quality diets are linked to an increased risk of disease, obesity, and overweight— conditions affecting approximately 60% of adults and 30% of children in European countries. To address these issues, our diets need to shift towards more plant-based ingredients, rich in vegetables, fruits, whole grains, and pulses. Diets should be limited in red and processed meat, salt, added sugar, and high-fat animal products, while fish and seafood should be sourced from sustainably managed stocks.

— So far, the main policy focus in the EU has been on providing consumers with more information. However, this alone is not enough. People make food choices not solely based on rational reflection but are influenced by a variety of factors: food availability, habits, emotional and impulsive reactions, as well as financial and social circumstances.

— We should therefore explore ways to ease the burden on consumers and make sustainable, healthy food choices easy and affordable. Achieving this will require a combination of incentives, information, and binding policies that govern all aspects of food production and distribution. These policies must address the entire food environment, encompassing any setting where food is obtained, consumed, or discussed. The EU’s food environment is diverse, including shops, restaurants, homes, schools, workplaces, and informal settings such as home-grown food. Increasingly, it also includes digital platforms and media.

Ongoing topics and projects

Successful and timely uptake of artificial intelligence in science in the EU



In 2023, SAPEA was asked to support the European Commission's Group of Chief Scientific Advisors in preparing advice on the topic of 'Successful and timely uptake of Artificial Intelligence (AI) in science in the EU' by the first quarter of 2024.

The main question to be answered was:
How can the European Commission accelerate a responsible uptake of AI

in science (including providing access to high quality AI, respecting European Values) in order to boost the EU's innovation and prosperity, strengthen EU's position in science and ultimately contribute to solving Europe's societal challenges?

This report is led by Euro-CASE. A SAPEA call for nominations was issued to Academies in July 2023 and 178 nominations from Academies were gathered. The Working Group Chairs were appointed by September 2023, based on the nominations from Euro-CASE Academies:

- **Anna FABIJANŃSKA** (Polish Academy of Sciences)
- **Virginia DIGNUM** (until September 2023, IVA)
- **Andrea Emilio RIZZOLI** (from September 2023, SATW)

The Working Group was selected by the end of September 2023. The Working Group led the organisation of two evidence-gathering expert workshops in 2023, with one more scheduled in 2024.

Additionally, SAPEA organized a Foresight Workshop on the future of AI-enabled research, science and innovation. This workshop brought together 27 experts on 26-27 October 2023 in the European Commission RTD building. It was designed and facilitated by the School of International Futures. The workshop outcomes were summarized in a report delivered to the Advisors on 15 December 2023.

The Evidence Review Report (ERR) is scheduled for publication in April 2024.



Solar radiation modification

In 2023, SAPEA was tasked with supporting the European Commission's Group of Chief Scientific Advisors in preparing advice on the topic of 'Solar Radiation Modification' by the third quarter of 2024.

The main question to be answered was:
How to address the risks and opportunities associated with research on Solar Radiation Modification and with its potential deployment? What are the options for a governance system for research and potential deployment taking into account different SRM technologies and their scale?

This topic is led by Academia Europaea (AE). A call for nominations was issued in Autumn 2023, and the working group was assembled and met by November 2023. The Evidence Review Report (ERR) is scheduled for publication in September 2024.

Cross-sectoral evidence-based governance for One Health in the EU

In 2023, SAPEA was tasked to support the European Commission's Group of Chief Scientific Advisors in preparing advice on the topic of 'Cross-sectoral evidence-based governance for One Health in the EU' by the third quarter of 2024.

The main question to be answered was:
Considering a complex policy area, i.e. One Health, what forms of management and cross-sectoral collaborations are best suited to ensure that synergies, possible trade-offs, and unintended consequences are taken into account?

This topic is led by Federation of European Academies of Medicine (FEAM). A call for nominations was issued in December 2023. The Evidence Review Report (ERR) is planned to be published in September 2024.



Interactions between academies and sharing practices

In 2022, SAPEA established a working group and a staff task force to organize a series of best practice workshops, enabling academies to share their experiences related to science for policy. **Euro-CASE is leading this initiative for SAPEA and has appointed Elin ELLIOT, the head of the external relations unit at IVA, as the chair of the working group.**



These activities leverage the SAPEA network to create opportunities for academies to exchange practices and experiences on various topics related to science advice.

Following several working group meetings and input from the task force, SAPEA developed a workshop plan consisting of six workshops organized by the SAPEA networks in 2023 and 2024. A report summarizing practices and reflections from academies across all these events is scheduled for publication in October 2024.

Two of these workshops took place in 2023:

— The webinar on **the keys to high-quality science advice** took place online on 21 September 2023.

This event, led by Euro-CASE, brought together experts in science advice for an engaging discussion with the audience on identifying the keys to high-quality science advice and how to achieve it. To ensure that advice from the SAM is based on the most up-to-date scientific and technical knowledge publicly available, SAPEA follows clear and transparent guidelines. In the process of updating this document, the SAM has engaged in discussions about the quality and methods of science advice, such as defining evidence, understanding what constitutes research excellence today, and recognizing the key role of knowledge brokers. During this event, experts in science advice engaged with the audience to explore the keys to high-quality science advice and how to achieve it.

<https://scientificadvice.eu/news/first-annual-communications-meeting/>

— The **first annual meeting of academy communications professionals** took place in Warsaw, hosted by the Polish Academy of Sciences on 17-18 October 2023 and was led by ALLEA.

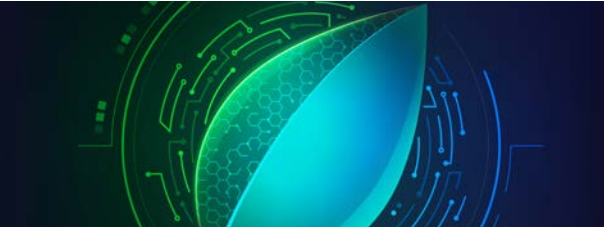
At this meeting, Academies delved deeper into the challenges, heard about good practices from peers, and worked on the skills and capacities needed to address communications challenges of Academies. The workshop process was structured and facilitated to ensure a lively and dynamic workshop with plenty of time to connect and exchange with peers from academies across Europe.

<https://scientificadvice.eu/news/first-annual-communications-meeting/>

Internal Euro-CASE topics:

PLATFORMS

Critical Raw Materials



Martin BECH
Danish Academy
of Technical
Sciences (ATV)

Through this platform, the working group, led by **Martin BECH, Chair of the working group**, has been exploring opportunities for Euro-CASE to provide policy advice to European stakeholders on critical raw materials (CRMs). This includes direct communication with the European Commission to promote Euro-CASE's expertise and offerings within its network.

The objectives of Euro-CASE are to:

Continue advancing the work with a feasible goal:
Organise a meeting with the working group on one of the five topics previously discussed with the Commission. The aim is to prepare for a restricted-access expert workshop on the selected topic, focusing on establishing a channel for expert advice that the Commission can utilize, rather than producing a formal evidence review report.

Maintain communication with the European Commission on the next steps.
The Commission has expressed interest in the following areas where they may welcome additional support:

- They see value in Euro-CASE's offer, particularly in its interdisciplinary approach, and appreciate having a sounding board.
- Two specific areas mentioned by the Commission include:
 - The skills gap along the value chain at the EU level. They want to assess whether there are enough individuals with the appropriate engineering skills.
 - The lack of innovation in the raw materials sector.

To efficiently address the concerns of the Directorate-General (DG), a Euro-CASE expert community has been established, consisting of 37 candidates from 13 Member Academies.

Engineering Diplomacy



Tim CHAPMAN
The Royal
Academy of
Engineering
(RAEng)

Tim CHAPMAN, Chair of the working group.
To solve global challenges, the involvement of engineering and technology at the highest level is essential and increasingly important. Traditionally, collaboration on shared engineering challenges has built bridges and created new opportunities for cooperation, even in an increasingly complex and interconnected world. However, the

current geopolitical landscape, marked by tensions not seen for decades, has led to a decline in trust between major powers. This has resulted in a rise of nationalism and protectionism, posing significant challenges to international collaboration. In this context, Technical Academies could emerge as key platforms for negotiating differing strategic priorities while continuing to build and maintain bridges between nations, promoting peace, prosperity, and security.

We propose to call this new initiative «Engineering Diplomacy.» The term is inspired by ongoing discussions and initiatives related to Science Diplomacy and Technology Diplomacy, which have longer track records and more developed frameworks. However, neither fully encapsulates the role of engineering sciences as a tool in and for diplomacy. Thus, Engineering Diplomacy becomes a relevant concept.

To better understand the role technical academies can play in this domain, IVA and ATV have proposed organizing three meetings and a survey to explore the potential of Engineering Diplomacy (ED) in selected European countries. These discussions will focus on how technical academies under Euro-CASE can contribute to ongoing European discussions on international collaboration in engineering.

Euro-CASE member academies will share information on their involvement in national or international activities related to strategic technologies, dual-use, resilient value chains, and more. Key areas of interest include: Euro-CASE member Academies will share information about their participation in national or international activities related to strategic technologies, dual-use, resilient value chains etc. For instances in areas such as: the Arctic, defence, quantum tech, technological sovereignty (energy, chips, pharmaceuticals etc), intellectual property and spying, digitalisation (artificial intelligence, GDPR, etc), the international student market (particularly the large mobility from India, China, Bangladesh), Open Science and intellectual freedom.

Innovation

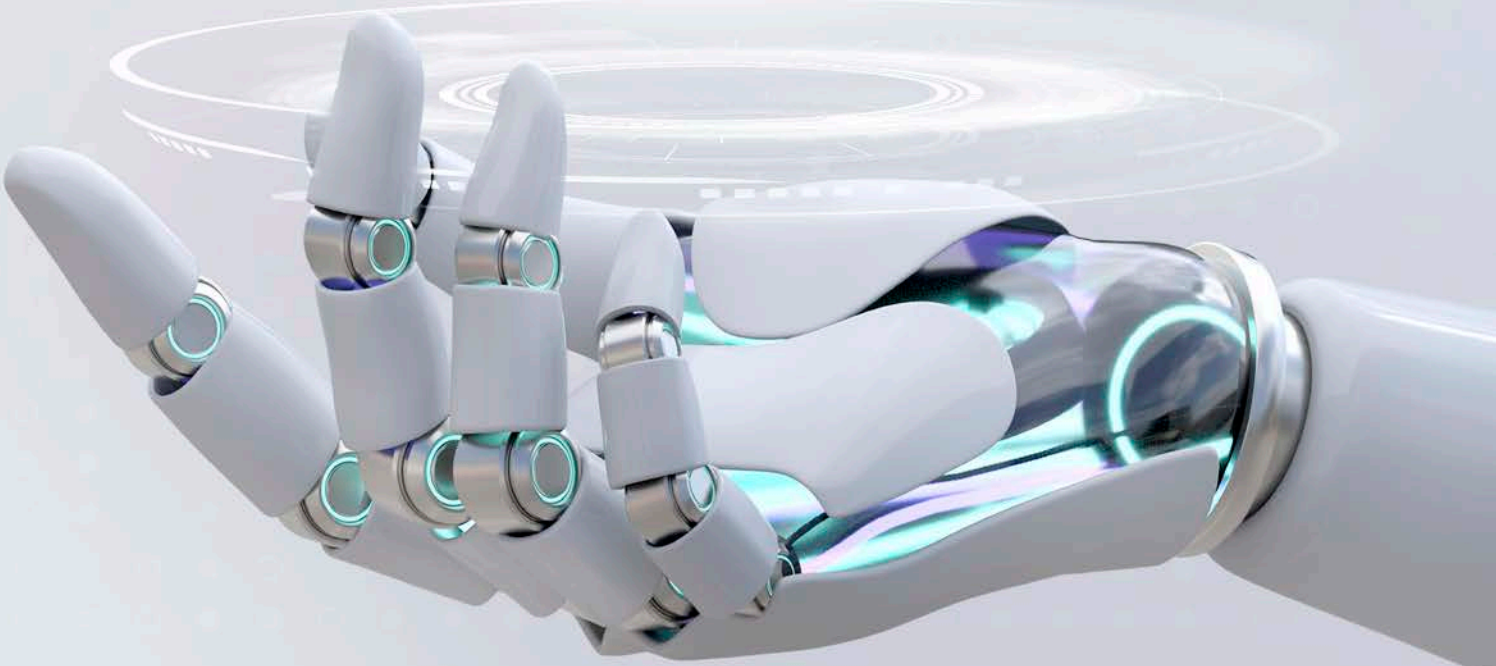
At the initiative of Stane PEJOVNIK and Miklos BENDZSEL, an action plan will be prepared to explore how smaller countries can receive support from the Euro-CASE network in terms of innovation. One possibility is to share best practices from member academies regarding policymaking and innovation. Outreach events could then be organized in countries that require support.



Stane PEJOVNIK



Miklos BENDZSEL



PARTNERSHIPS

FRONTIERS OF ENGINEERING

2022/2023 CYCLE



Since 2010, Euro-CASE and the US National Academy of Engineering (NAE) have jointly organised meetings under the Frontiers of Engineering (FOE) initiative.

The objective of the FOE symposia is to bring together the next generation of engineering leaders and create an early-career network to facilitate transatlantic collaboration in engineering and technology. This initiative aims to promote the exchange of new techniques and methods across four topics of major societal interest. The invited participants, comprising engineers, scientists, and technologists under the age of 45, include 60 representatives from both Europe and the United States.

On behalf of Euro-CASE, the **Slovenian Academy of Engineering**¹ and supported by these **sponsors**².

The 2023 EU-US Frontiers of Engineering symposium was held from October 15-18 and hosted by Nokia Bell Labs in Murray Hill, New Jersey. Sixty of the most promising early-career engineers from the US and EU gathered for an intensive 2.5-day symposium to discuss cutting-edge developments in four key areas: the Quantum Era Challenge, the Computational Era

in Life Sciences, Clean Hydrogen, and Future Challenges in Additive Manufacturing.

The event facilitates international and cross-disciplinary research collaboration, promotes the exchange of new techniques and approaches across diverse engineering fields, and fosters the creation of a transatlantic network of world-class engineers.

A detailed programme and presentations from the symposium are available on the **NAE website**³.

2025 EU-US FRONTIERS OF ENGINEERING SYMPOSIUM⁴

(EU-US FOE) scheduled for 20-23 October, will be organised by the National Academy of Technologies of France and its Foundation.

The selected topics are:

- The Quantum Era Challenge,
- The Computational Era in Life Sciences,
- Clean Hydrogen and Future Challenges in Additive Manufacturing.

1- <http://en.ias.si/>

2- <https://www.nae-frontiers.org/207755/Sponsors>

3- <https://www.nae-frontiers.org/207843/2023-EUUS-Frontiers-of-Engineering-Symposium>

4- <https://www.nae-frontiers.org/22275.aspx>

CAETS

CAETS is an independent nonpolitical, non-governmental, international organization of engineering and technological sciences academies, one member academy per country, that advances the following objectives:

- Prepared to advise governments and international organizations on technical and policy issues related to its areas of expertise;
- Contribute to the strengthening of engineering and technological activities to promote sustainable economic growth and social welfare throughout the world;
- Foster a balanced understanding of the applications of engineering and technology by the public;
- Provide an international forum for discussion and communication of engineering and technological issues of common concern;
- Foster cooperative international engineering and technological efforts through meaningful contacts for development of programs of bilateral and multilateral interest;
- Encourage improvement of engineering education and practice internationally;
- Foster establishment of additional engineering academies in countries where none exist.



CAETS 2023 ANNUAL MEETINGS were hosted by the Croatian Academy (HATZ) from 9 to 11 October in Zagreb, Croatia.

The symposium will address the topic of **E2-MOBILITY** with the following specific issues:

- Electrification of transport and integration with energy systems
- Batteries - the core technology
- Hydrogen, Fuel Cells and electrofuels
- Autonomous driving
- Mobility modal shift - roads, railways, ships or planes? [Car sharing, Ride pooling]

During CAETS2023, hosted by the Croatian Academy of Engineering in Zagreb, Croatia on 9-10 October, the CAETS Council elected two new member academies: Academy of Engineering, Singapore and Academy of Engineering in Poland.



CAETS 2024 Helsinki

THE CAETS 2024 ANNUAL MEETINGS and Technical Symposium will be organized from 1 to 4 July in Helsinki, Finland, Hosted by the Council of Finnish Academies and the Finnish Academy of Technical Sciences.

The theme of CAETS 2024 conference is **CARBON NEUTRAL TECHNOLOGIES AND SOCIETY**, that is, carbon neutral society, its prerequisites, and technical solutions.



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2023 ANNUAL CONFERENCE

25 September - Madrid

The Euro-CASE Annual Conference 2023 took place in Madrid on September 25 at the prestigious Real Academia de Ingeniería.

THE THEME OF THE CONFERENCE WAS:

"Energy Challenges in Europe: The Role of Engineering in Securing Supplies and Technologies".



Engineers play a crucial role in society, not only through the design but, importantly, through the implementation of positive solutions that support both society and the environment. Engineering and technology are essential in addressing Europe's energy challenges. The Annual Conference focused on current issues such as power systems for clean energy security and reliability, the security of mineral supplies, and the importance of maintaining European strategic sovereignty.

Europe's energy transition brings significant changes to the energy sectors and industry, with widespread economic consequences. The most dramatic shifts are expected in the oil and gas sectors, where engineering and technology will play a critical role in delivering sustainable transformations.

The 2023 Euro-CASE Annual Conference explored both the development of engineering solutions and the enablers, barriers, and practicalities of technology deployment. Discussions highlighted how engineers can guide decision-makers in leveraging technological advancements to solve complex transitional challenges with numerous interdependencies.

The conference clearly demonstrated how engineers can provide valuable insights into the implementation of effective and sustainable solutions for Europe's energy challenges. Europe is undergoing a clear transformation, in which energy transition and digitalization are gradually but profoundly reshaping society.

One of the key features of the 2023 conference was the intentional inclusion of young professionals (PCTs) as speakers.

The conference addressed **three main issues** related to these changes:

- 1. The evolving electricity mix, with electrification and renewables** playing an increasingly significant role.
- 2. The minerals and metals needed to support the substantial investments** in renewables and electrification.
- 3. The inevitable transformation of the oil and gas industries**, where engineering will be vital in providing sustainable solutions.

Nearly 100 participants registered for the conference, representing 18 of the 23 Euro-CASE member academies. The event generated significant interest and positive feedback, underscoring the relevance and importance of the topics discussed. The conference programme, introductory and opening sessions, as well as recordings of the three key sessions, are available on the Euro-CASE website.

List of speakers (in order of intervention):

Antonio Colino Martínez (ES), Tuula Teeri (SE), Thierry Breton (FR), Loreto Ordóñez (ES), Hélène Chraye (FR), Ignacio Perez Arriaga, Daniel Iracane (FR), Filip Johnsson (SE), Dirk Uwe Sauer (DE), Tomás José Domínguez Aufrán (ES), Francisco Suárez Ortiz (ES), Eloy Álvarez Pelegry, Stephane Bourg (FR), Susanne Norgren (SE), Egbert Lox (BE), Robert Dominko (SI), Migle Laukyte (LT), Mark Jolly (UK), Moderator: Luis Cabra Dueñas, Nicolas Aimard (FR), Andrea Ramírez Ramírez, Joachim Meister (UK), Francesca Zarri (IT), Marie Bysveen (NO), Vicente Cortés Galeano (ES).

A document presenting the Conference highlights have been in collaboration with Luke Hatton and Jakub Zemek.

More information on all Euro-CASE conferences can be found on the Euro-CASE website.



2024 ANNUAL CONFERENCE

23 September - Budapest

On September 23, 2024, the Hungarian Academy of Engineering will organise the Conference in the prestigious premises of the Budapest University of Technology and Economics, the 2024 Euro CASE Annual Conference. The Hungarian Academy of Engineering is an institution created in 1990 at the forefront of technical knowledge, which promotes excellence, quality and competence in Hungarian engineering in its various disciplines and fields of action.

THE THEME OF THE CONFERENCE WAS:

**“European Engineering for Sustainability
New Solutions for
Environmental, Urban
and Health Systems”.**



« European Engineering Sustainability » underscores the crucial role that engineers play in shaping a better world. In an era defined by environmental and social challenges, it is the engineering community that leads the charge in finding applicable solutions.

The conference will address three paramount topics that are central to our global mission. First and foremost, we delve into the pressing issue of environmental challenges. Waste recycling, water management, and industrial and nuclear decontamination will be at the forefront of discussions. Groundbreaking strategies and innovations that promise a cleaner, and more sustainable future will be discussed.

Furthermore, the intricate dynamics of urban environments will be explored. The monitoring and control of urban transport and utility systems are critical to the efficient functioning of cities. Through real-world examples and practical case studies, good practices of those cities that have successfully implemented strategies to enhance urban systems efficiency and sustainability will be discussed.

Equally significant is the discussion on the technical needs and solutions in health promotion and ageing. Engineers are at the forefront of developing technologies that improve healthcare outcomes and facilitate healthy aging processes. This topic is not only relevant but also critical in an era where health and well-being are at the forefront of global concerns.

The Euro-CASE 2024 conference will be a platform for rich dialogues, knowledge exchange, and networking. Experienced speakers, including distinguished Fellows of Academies and leading experts in the field, will share their insights and experiences. Valuable perspectives on how engineering can lead towards a more sustainable and resilient future will be discussed.

Budapest, a city rich in history and innovation, offers an excellent opportunity to embark on a journey of discovery and collaboration. It is hoped that during the conference engineering solutions that Europe offers that not only address the challenges of today but also lay the foundation for a brighter and more sustainable tomorrow.



THE SAPEA CONSORTIUM

Background

Spanning the disciplines of engineering, humanities, medicine, natural sciences and social sciences, Science Advice for Policy by European Academies (SAPEA) brings together outstanding knowledge and expertise from over 100 academies, young academies, and learned societies in over 40 countries across Europe. **SAPEA is part of the Scientific Advice Mechanism (SAM) of the European Commission.**

Within the Scientific Advice Mechanism, SAPEA is funded by the European Union. **The SAPEA consortium comprises five European Academy networks:**

- Academia Europaea (AE),
- All European Academies (ALLEA),
- Young Academies Science Advice Structure (YASAS),
- European Council of Academies of Applied Sciences, Technologies and Engineering (Euro-CASE), and
- Federation of European Academies of Medicine (FEAM).

The European Commission issued the SAPEA ‘Science Advice for Policy by European Academies’ call with the purpose of enabling the European networks of science academies to be part of the European Commission’s Scientific Advice Mechanism. Together with the Group of Chief Scientific Advisors, SAPEA provides independent scientific advice to European Commissioners to support their decision-making. SAPEA also works to raise awareness of scientific advice and evidence in policymaking, and to stimulate debate in Europe about these issues.

SAPEA Board members



Stefan CONSTANTINESCU
Chair
President of FEAM



Helen EENMAA
Member
President of YASAS



Marja MAKAROW
Member
President of Academia Europaea



Paweł ROWIŃSKI
Member
President of ALLEA



Tuula TEERI
Member
Chair of Euro-CASE



Wim VAN SAARLOOS
Observer
President of EASAC

CYBERSECURITY IN THE EUROPEAN DIGITAL SINGLE MARKET

Scientific Opinion delivered by GCSA to the European Commission on 24 March 2017, following a request by the Commission Vice President Ansip and Commissioner Oettinger.

FOOD FROM THE OCEANS

Request from Commissioner Vella, GCSA opinion and SAPEA Evidence Review Report published November 2017 in the presence of Commissioner Moedas.

NOVEL CARBON CAPTURE AND UTILISATION TECHNOLOGIES

Request from Commissioner Cañete, GCSA opinion and SAPEA Evidence Review Report published May 2018.

AUTHORISATION FOR PLANT PROTECTION PRODUCTS IN EUROPE

Request from Commissioners Andriukaitis and Moedas, GCSA opinion and SAPEA Evidence Review Report published June 2018.

MICROPLASTICS IN NATURE AND SOCIETY

This report has been proposed as a bottom-up topic by the Group of Chief Scientific Advisors and was published in January 2019.

TRANSFORMING THE FUTURE OF AGEING

This report has been proposed as a bottom-up topic by SAPEA and in particular FEAM who was the Lead Network for this ERR published in June 2019.

MAKING SENSE OF SCIENCE FOR POLICY

This report has been proposed as a bottom-up topic by the Group of Chief Scientific Advisors and was published in July 2019.



A SUSTAINABLE FOOD SYSTEM FOR THE EU

Request from DG SANTE, GCSA opinion and SAPEA Evidence Review Report published in April 2020.

BIODEGRADABILITY OF PLASTICS IN THE OPEN ENVIRONMENT

Request from Commissioner Karmenu Vella (Environment, Maritime Affairs and Fisheries) and Commissioner Carlos Moedas (Research, Innovation and Science). GCSA opinion and SAPEA Evidence Review Report published in December 2020.

A SYSTEMIC APPROACH FOR THE ENERGY TRANSITION IN EUROPE

There are many possible pathways towards a carbon-neutral future. Achieving it by 2050 is possible, but this requires urgent action.

IMPROVING CANCER SCREENING IN THE EUROPEAN UNION

How can cancer screening programmes be improved throughout the EU?

STRATEGIC CRISIS MANAGEMENT IN THE EU

Improving crisis management has become an essential issue for protecting and enhancing present and future wellbeing in the EU and globally.

SUSTAINABLE FOOD CONSUMPTION

For Europe to achieve its health and sustainability goals, the way we produce and consume food has to change.

SUCCESSFUL AND TIMELY UPTAKE OF ARTIFICIAL INTELLIGENCE IN SCIENCE IN THE EU

Artificial intelligence has the potential to revolutionise scientific discovery, accelerate research progress, boost innovation and improve researchers’ productivity. The EU must take hold of the opportunities this brings, and in a timely way. But it must also respond to the challenges and risks associated with this fast-evolving technology.

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Member Academies major events and achievements in 2023



AUSTRIA
ÖAW
www.oew.ac.at

In line with its guiding principle of strong involvement in the European Research Area (ERA), the Austrian Academy of Sciences (ÖAW) contributed in various ways to Academy Networks such as Euro-CASE, EASAC, ALLEA, FEAM, and others during 2023.

— In spring 2023, ÖAW joined Science Europe (SE). Given its unique position as both a research-performing and research-funding institution, as well as a scholarly society, ÖAW brings valuable contributions to SE. The ÖAW benefits from SE membership across all its activities, especially as a research funding organization.

— Preparations for ÖAW to assume the office of the European Science Advisory Council (EASAC), effective January 1, 2024, began early in 2023. These efforts culminated in the joint EASAC-OeAW Academy Day on “Sustainable Energy Solutions” in early November 2023, which also served as the official kickoff for this new collaboration.

— Furthermore, in December 2023, ÖAW became an associate member of the European Physical Society (EPS). This membership aims to strengthen the European network of relevant ÖAW institutes and increase the visibility of physics at ÖAW).

ÖAW SCIENCE AND SOCIETY:

In 2023, OeAW continued its lecture series «Colloquium Digitale: Digitization, People, and Society,» which addresses digitization and artificial intelligence. The following lectures were held as part of the “Colloquium Digitale”:

- 17-18 October 2023: *The Future of Digitalized Humans*
- 27 April 2023: *Values by Design?*
- 20 April 2023: *Digitalization and Crisis*
- 2 March 2023: *Humanism and Transhumanism*
- 12 January 2023: *Digitalization in Education*

BOOKLET SERIES “AKADEMIE IM DIALOG”:

ÖAW offers high-quality lectures and discussions that foster dialogue between researchers and the public. Highlights from these events are published in the booklet series “Akademie im Dialog.” In 2023, OeAW published the following issues, among others:

- *Are Social Media a Threat to Democracy?*
- *Diverse Perspectives on the Role(s) of Research in Mastering Socio-Ecological Challenges*
- *Fact or Fake: How Do We Deal with Science Skepticism?*



BELGIUM
ARB
www.academieroyale.be

COLLÈGE BELGIQUE

The “Collège Belgique” continued its activities as the educational and knowledge dissemination institution of the Académie royale de Belgique (ARB). The College offers a programme of more than a hundred university-level lectures, free of charge, designed to be accessible to a wide audience. These courses are taught by academicians, university professors, researchers, writers, and experts recognized for their knowledge in the respective fields. The «Classe Technologie et Société» of the ARB also contributes to the programme.

COLLEGIUM

The ARB continued to welcome in 2023 members of its newly created body, a “Young Academy” named the “Collegium”, with the objective to gather young scholars (less than 40 years of age) and their expertise within the ARB.

ARB/KVAB POSITION PAPER

The first joint position paper of Belgium’s two general academies, KVAB and ARB, calling for an accelerated digital transformation in Belgium, was published in 2023.



BELGIUM
KVAB
www.kvab.be

THINKERS’ PROGRAMME ‘AI AS AN AGENT OF CHANGE’

This programme focuses on the most recent developments in artificial intelligence and explores their implications for our understanding of humanity, particularly regarding autonomy, self-determination, and the need for a ‘digital humanism’. In collaboration with Helga Nowotny, the aim is to examine, on the basis of a broad reflection, proposals for supplementary policies that are developed internationally to stimulate the productive integration of AI in society.

POVERTY AND/IN EDUCATION

As part of the 2023 Thinkers’ Cycle on Poverty and/in Education, led by Mieke Van Houtte (UGent) and Mathijs Lamberigts (KU Leuven), experts explored educational inequality from financial, social, and cultural perspectives. International experts Luann Good Gingrich (York University) and Diane Reay (Cambridge University) brought their expertise to Flanders to reflect and debate together with the Steering Committee and numerous experts in order to make recommendations for a future-oriented Flemish policy. At the closing symposium on December 12, 2023, they presented findings and policy suggestions to address these ongoing challenges.



CROATIA
HATZ
www.hatz.hr

ORGANIZATION OF CONFERENCES TO COMMEMORATE THE 30TH ANNIVERSARY OF HATZ’S FOUNDING:

— The CAETS 2023 conference titled “e2-Mobility – Solutions and Opportunities” focused on exciting and transformative e-mobility as the foundation of the future of transport. The conference was held in Zagreb, Croatia, from October 9 to 11, 2023.

— A scientific conference titled “Croatian Academy of Engineering – Cohesive Factor of Technical and Biotechnical Sciences and Croatian Economy” was held in Zagreb, Croatia, on June 30, 2023.

ADDITIONAL EVENTS IN WHICH HATZ HAD CO-ORGANIZATION OR PATRONAGE ROLE:

HATZ participated in various events, including the symposium “Engineer’s Day 2023 - Urban Planning and Architecture - Drivers of Sustainable Development in Croatia”, the conference “Printing & Design 2023”, the conference “Textile Science and Economy – Digital Fashion”, the hackathon “Brainhack Zagreb 2023”, the symposium “Food for Health”, as well as numerous other symposiums, conferences, round tables and workshops.

HATZ SCIENTIFIC PUBLICATIONS:

- Jubilee Annual 2022-2023 of the HATZ, published on the Occasion of the 30th Anniversary of the Academy (1993-2023).
- Journal “Engineering Power”, issues 17(3) 2022 and 17(4) 2022, featuring papers covering various fields of technical and biotechnical sciences.



CZECH REPUBLIC
EA CR
www.eacr.cz

— The Engineering Academy organized a workshop titled “Outlooks on Personal Mobility.” The workshop focused on CO2 emissions from transportation and emphasized the need for a systemic approach to this issue, considering the perspectives of natural sciences (Physics and Chemistry), economics, and industry.

— As part of the programme of workshops on the energy future of the Czech Republic, the Engineering Academy organized two workshops analyzing feasible scenarios for the development of the country’s energy resources and comparing their economic feasibility.

— The Engineering Academy awarded the prize for the outstanding technical project “Subcritical Reactor VR-2,” a unique research nuclear reactor designed and constructed by the Faculty of Nuclear Sciences and Physical Engineering at CTU in Prague. The reactor is controlled by an external neutron source and is characterized by its high inherent safety, variability, and flexibility.



DENMARK
ATV
www.atv.dk

— May: At ATV’s Annual Assembly a new five-year project ‘Guide to a Resilient Denmark’ was launched. It is ATV’s most ambitious effort yet to shape and accelerate Denmark’s sustainable transition. ATV also elected its new President, Carsten Toft Boesen, CEO, NIRAS, who took over from Anders Bjarklev. ATV Presidents are elected for a three year-period.

— November: ATV held its annual Technology Summit at which a new report ‘Strategic Technologies for Denmark’ was presented; it specifies 12 technology areas that are critical for Denmark’s future competitiveness and prosperity and is part of ATV’s call for a National Danish Technology Strategy.

— In Spring 2023, the Young Academy of Technology, Science, and Innovation was established as an independent entity under the Danish Academy of Technical Sciences (ATV). The purpose of YATSI is to strengthen applied research and innovation in the technical sciences, strengthen collaboration between academia and industry, while also providing some of Denmark’s most talented young researchers and engineers with a public voice to influence decision-making on topics related to science and technology-based innovation and entrepreneurship.



FINLAND
CoFA
www.academies.fi

— The Human Rights Committee of the Council of Finnish Academies (CoFA) granted Risto Pelkonen Human Rights Award for the Finnish National Theatre at the event “Theater and the freedom of science” in May

— “Great Nobel Debate” in October

— Seminar “Science and the green transition” in November

— CoFA nominated national representatives to several international science organizations and their workgroups, including CAETS, EASAC, Euro-CASE, and SAPEA.

— CoFA shared several reports and publications published by international science organizations to national decision-makers, science organizations and media.



FRANCE
NATF
www.academie-technologies.fr

- **Publications in 2023, available on the NATF website: Biotech**
- New genomic technologies applied to plants (referral from the Prime Minister's Office)
 - The future of alternative proteins
 - CO2 capture and storage:
 - Ministerial consultation on CCUS
 - Fuels:- Decarbonising the aviation sector through the production of sustainable fuels
 - Roadmap to e-fuel production
 - Soft water:
 - The contribution of technologies to meeting France's soft water needs in the context of climate change
 - Employment: France is in danger of not having enough technicians to develop its industry
 - Education: The place and teaching of mathematics in France
 - Nuclear: The fundamentals of the decarbonisation of economies in China and France/Europe through the Hydrogen vector
 - Photovoltaic: For the development of industrial production of photovoltaic panels in France and Europe France 2030
 - Energy policy:
 - National consultation on the energy mix: French electricity at the forefront of the decarbonisation of European energies
 - For a new European energy policy
 - Recycling: Towards efficient industrial systems for an effective ecological transition
 - Society: Some thoughts on sobriety
 - Digital systems: Prowess and limits of artificial language imitation
- **Organisation of the annual seminar** on the topic: Technologies, sectors and conditions for success in reindustrialising France (for resilience and greater sovereignty)
- Set up at the end of 2019, the 'Technologies and gender diversity' mission is promoting the contributions and visibility of women in the world of technology, with the online launch of a network of portraits of 'Women in Tech'. The "Women in Tech" network brings together young women who are sponsored by a NATF Fellow. The network is regularly updated and showcases these inspiring women who want to encourage young women to embark on a career in technology and who are also keen to share their views and experiences with each other and with the academy.
- **BILATERAL RELATIONSHIPS WITH ACATECH**
- Workshop "Shaping the future of mobility and energy supply together, in a technology-open manner".



GERMANY
ACATECH
www.acatech.de

- In May 2023, MISSION KI was launched, a joint project between acatech and the Federal Ministry for Digital and Transport, funded with 32 million euros. The research and development project is one of the flagship projects of the federal government's digital strategy and is intended to strengthen the digital competitiveness of the German economy.
- German Federal President Frank-Walter Steinmeier was the keynote speaker at the acatech gala in autumn 2023, attended by more than 700 guests from politics, science, business and society. The main themes of the event were sovereignty within the transformation, and the contribution made by technological innovations.
- The acatech Senators met for their annual meeting in June 2023 at Airbus, the aerospace company located on the outskirts of Munich. The panel discussion made it clear that digital technologies and societal expectations are key factors in the radical transformation of the industry.



HUNGARY
HAE
www.mernokakademia.hu

MAJOR EVENTS OF THE ACADEMY IN 2023:

- The presidency organized a general assembly and six annual presidency meetings.
- The Michelberger Master Award annually recognizes a master-student pair; recent winners specialized in vitrimer composites.
- The annual «Innovation and Sustainable Surface Transport» conference is organized by HAE.

LEADERSHIP AND ORGANIZATIONAL DEVELOPMENTS:

- The election assembly on May 19, 2023, elected the new presidency until May 2026.
- The Materials Industry Technology Platform was established.
- Significant support was received for the INNOKATALIZÁTOR program with three policy documents created in 2023 on Food Industry and Digitalization, Regional Transport Management, and Material Technology.

BILATERAL RELATIONS WITH EUROPEAN INSTITUTIONS:

- Szollosi-Nagy András was elected to the CAETS Executive Board for 2023/24.
- The Academy will host the Euro-CASE general assembly and conference in Budapest in September 2024.
- The Academy's involvement in international projects (RRF program) and cooperation with European institutions (SAPEA, ALLEA) has been revitalized.



NETHERLANDS
NAE
www.acti-nl.org

LAUNCH OF THE NETHERLANDS ACADEMY OF ENGINEERING (NAE)

Above all 2023 was the year in which we founded the Netherlands Academy of Engineering. On November 13, NAE appointed the first 62 Fellows - top experts from broad engineering and innovation field. On November 14, national newspaper NRC (New Rotterdam Gazette) published the article "Thinking like an Engineer: Solution-Oriented" featuring an interview with Henk van Houten (NAE Chair) and Sjoukje Heimovaara (NAE Vice-Chair). The NAE launched its website www.nae.nl on 25 May 2023.

NAE POSITIONING PAPER AND EXECUTION PLAN

The Netherlands Academy of Engineering published its Positioning Paper in May 2023 and translated it into an Execution Plan in the second half of 2023. The purpose of the NAE is to foster a vibrant and effective climate for responsible, inclusive, and impactful engineering-based innovation, rooted in a world-class knowledge and talent base in technological sciences and human-centric design. The six themes are:

- Engineering Talent
- (Eco)system Improvements
- Innovating for Societal Transitions
- Innovating Engineering Practices
- Effective Valorization & Start-ups
- International Collaboration and Best Practices

MEMBERSHIPS Euro-CASE & CAETS

President Tuula Teeri presented NAE the Euro-CASE membership on September 26 at the Euro-CASE annual conference in Madrid. On 10 October, in Zagreb, NAE became a member of CAETS.



POLAND
PAN
www.pan.pl

- Prof. Anna Fabijanska, Chair of the National Committee for the Cooperation with Euro-CASE at the PAS, co-authored the SAPEA Evidence Review Report "Successful and timely uptake of artificial intelligence in science in the EU". Prof. A. Fabijanska co-chaired the Working Group that elaborated this report.
- The European Climate Conference, co-organized by the PAS and the German National Academy of Sciences Leopoldina, was held in Warsaw on May 15-16, 2023, to assess climate change and progress toward climate neutrality. A joint communiqué on climate change in Europe was issued by 90 scientists from 45 countries in Europe and Central Asia.
- The Long-Term Programme for Ukrainian Research Teams at PAS carried out in cooperation with the US National Academy of Sciences and other partners, took place in Warsaw on June 28-29, 2023. During this event, the representatives of all sponsors met the principal investigators of 18 Ukrainian research teams that received financial support of up to about \$200,000 per year for 3 years.



PORTUGAL
AE
www.ordemengenhheiros.pt

- On January 20, 2023, an international Debate on "The Data Economy in the European Union" was held at the Order of Engineers, Lisbon, jointly organized by the Academy of Engineering and the Order of Engineers with Members of the PPE Group, the S&D Group and the RE Group, of the European Parliament.
- On August 12, 2023, a proposal was (successfully) submitted for the appointment of Professor Arlindo Oliveira, as member of the international and interdisciplinary working group for the topic "Successful and timely uptake of Artificial Intelligence in science in the EU", in support of the European Commission's Scientific Advisory Mechanism (SAM). The work carried out resulted in an important final independent report (Scientific Opinion n. 15, March 2024), to be reported in 2024.
- On October 15-18, 2023, at the Academy's proposal, a young researcher, Rui Neves, from the University of Porto participated in the '2023 EU-US Frontiers of Engineering Symposium (EU-US FOE)', held at Nokia Bell Labs in Murray Hill, New Jersey, an event co-organized by the NAE-USA and the Euro-CASE.



ROMANIA
ASTR
www.astr.ro

ACADEMIC DAYS OF TECHNICAL SCIENCES ACADEMY OF ROMANIA-INTERNATIONAL CONFERENCES WITH THE THEME

«Challenges, opportunities and solutions in engineering sciences»- (October 5-6, 2023), partners: Transilvania University of Brasov city.
The papers are published in Proceedings.

PUBLICATIONS

- Journal of Engineering Sciences and Innovation (JESI), quarterly journal indexed in six databases
- From the series: Pages from the development of the industry of Romania, Explanatory volume, author: Valeriu V.Jinescu, AGIR publishing house, Bucharest, 2023;
- Passing the baton, author: Mihai Mihaita, AGIR publishing house, Bucharest, 2023;
- Unitary operations and intensive procedures in depollution technologies authors: Cosmin Jinescu, Alina-Monica Mares, Gheorghita Jinescu, AGIR publishing house, Bucharest, 2023;
- Specific materials and processes for heat transfer equipment from Generation IV fission reactors, authors: Lucan, D., Jinescu, G., Eikon publishing house Bucharest, 2023;



SLOVENIA
IAS
www.ias.si

STRATEGIC CONSULTATION ON INNOVATION AND TECHNOLOGY MANAGEMENT:

Best practices and ideas on innovation and technology management from Germany were presented, along with the challenges Slovenia faces in investing in research and development. After the introductory lectures and an in-depth discussion, participants unanimously agreed on measures Slovenia should take to advance in the field of innovation and technology management.

FRONTIERS OF ENGINEERING:

In cooperation with the National Academy of Engineering (USA) and Euro-CASE, IAS co-organized the Frontiers of Engineering Symposium from 15-18 October 2023 in New Jersey, USA. Topics included The Quantum Era Challenge, Computational Era in Life Sciences and Chemistry, Green Hydrogen, and Future Directions in Additive Manufacturing.

COMMEMORATIVE EVENT ON THE 100TH ANNIVERSARY OF SLOVENIAN FRIDERIK PREGL'S NOBEL PRIZE:

Friderik Pregl received the Nobel Prize in Chemistry in 1923 for developing an original method of microanalysis of organic compounds. In 1925, he donated a replica of the original microanalysis device to the University of Ljubljana, which was also displayed during the event.



SPAIN
RAING
www.raing.es

— Prizes for young research engineers (Agustín de Betancourt and Juan López de Peñalver) have been awarded, as well as the Academiae Dilecta Award for companies.

— In September 2022, RAI hosted the annual Euro-CASE conference at its premises. Minutes and highlights from the meeting have been published and are available on the Euro-CASE and RAI websites. A joint conference with the Academy of Engineering of Mexico was also organized, and RAI has maintained its representation in CAETS activities.

— The academy has published several books and reports in Spanish, including Raw Materials in the Energy Transition and Digitalization: The Role of Mining and Metallurgy, Plant Health in Agriculture and Forestry: Challenges and Perspectives, How to Promote Innovation in the Classroom, and Engineering and Accessibility. Additionally, the academy worked on the revision and improvement of the Spanish Dictionary of Engineering.

— Several conferences have taken place as part of the «La RAI en la red» programme, covering topics such as soft robotics, glass as a structural material, and the role of nuclear energy. Seminars on innovation and entrepreneurship in the media, as well as on the role of Artificial Intelligence, were also conducted.

— The «Mujer e Ingeniería» (Women and Engineering) programme continued with various activities, including mentoring programme for engineering students and initiatives aimed at early-career professionals, companies, schools, and institutions.



SWEDEN
IVA
www.iva.se

— On 19-20 April, the Korea - Sweden Research-to-Business (R2B) Forum was organised in Seoul by IVA and COMPA (The Commercializations Promotion Agency for R&D Outcomes). The R2B Summit was a brand-new meeting place for utilisation and commercialisation of research between Sweden and South Korea.

— On 12 September, IVA organised a seminar providing a global outlook on science diplomacy and international competition. The event focused on how Sweden can enhance competitiveness, growth, and foster sound international partnerships. Mr. Jerrard Sheehan, the OECD Director of Science, Technology, and Innovation, attended the seminar to discuss the OECD STI Outlook 2023.

— On 26 October, IVA organised a seminar addressing the consequences of the use and misuse of disruptive technologies like Artificial Intelligence (AI) and how global tech diplomacy can serve as a guardrail. Mung Chiang, President of Purdue University and IVA Fellow, shared his views on preserving and advancing individual freedom in the age of AI and data.



SWITZERLAND
SATW
www.satw.ch

ANNUAL CONGRESS

What security of supply does Switzerland need? This was discussed by leading personalities at the Swiss Academy of Engineering Sciences (SATW) Annual Congress on 17 May 2023 in Zurich, hosted by Google Switzerland. With «Data - Artificial Intelligence» and «Energy», the SATW Annual Congress 2023 featured topics on the podium that sparked to intensive discussions. The congress was fully booked with 280 guests.

TECHNOLOGY OUTLOOK

The new Technology Outlook of the Swiss Academy of Engineering Sciences (SATW) brings together the most important findings of 183 experts from science and industry for the Switzerland of tomorrow. Around 300 guests attended the launch at ETH Zurich. The study highlights forward-looking technologies, innovative industrial applications and national and international technology trends and is available at technology-outlook.ch.

CYBER RESILIENCE

Some 70 people from government, business and science attended the networking event organised by the State Secretariat for Education, Research and Innovation (SERI) and SATW in Bern on 14 September 2023. They explored current and future action areas where national and international co-operation on research and innovation could enhance cyber resilience in Switzerland.



UNITED KINGDOM
RAENG
www.raeng.org.uk

GREEN FUTURE FELLOWSHIPS

RAEng has received a £150 million endowment from government to launch the Green Future Fellowships programme in 2024. The Green Future Fellowships will provide critical funding to leading researchers and innovators to develop practical, breakthrough technologies and climate change solutions to achieve net zero.

QEPRIZE FOR ENGINEERING 2023

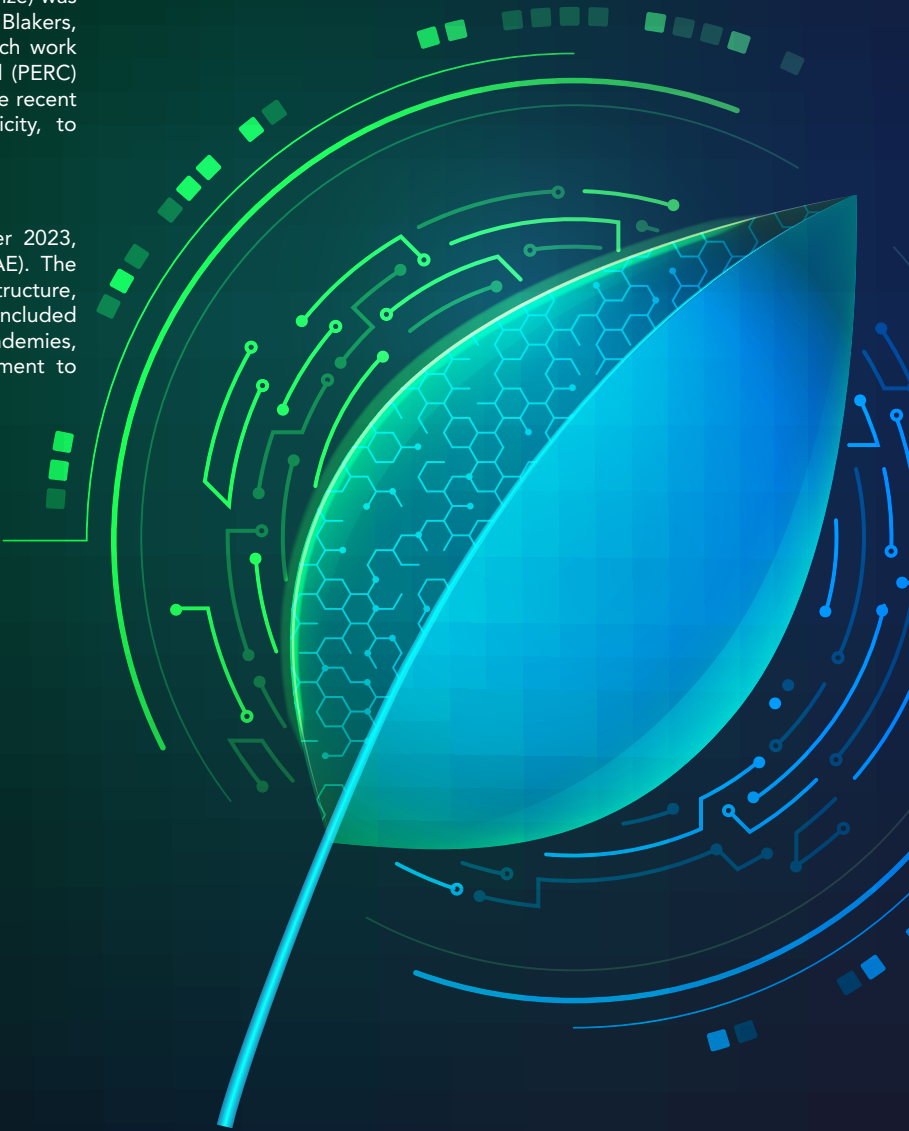
The 2023 Queen Elizabeth Prize for Engineering (QEPrize) was awarded to Professor Martin Green, Professor Andrew Blakers, Dr Aihua Wang and Dr Jianhua Zhao for their research work and development of Passivated Emitter and Rear Cell (PERC) solar photovoltaic technology that has underpinned the recent growth of high performance, low-cost solar electricity, to harness the power of the sun.

GLOBAL GRAND CHALLENGES SUMMIT 2023

The summit was held virtually on 18-20th September 2023, hosted by the Chinese Academy of Engineering (CAE). The programme included sessions on Sustainable Infrastructure, Carbon Neutrality and Digital Economy. GGCS 2023 concluded a of a statement signed by presidents of the three academies, highlighting the summit's success and their commitment to collaboration.

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Euro-CASE

Academies of Engineering Sciences