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# ANNUAL REPORT 2022

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

30 years of  
collaboration of  
academies  
of engineering  
and technologies



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Euro-CASE



**Euro-CASE**

Established in 1992, The European Council of Academies of Applied Sciences, Technologies and Engineering (Euro-CASE) is an independent, non-profit organisation of national academies of applied sciences, technologies and engineering from 23 European countries. Euro-CASE exists 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.

## Euro-CASE EXECUTIVE COMMITTEE IN 2022



**Tuula TEERI**  
*Chair*

Royal Swedish Academy of  
Engineering Sciences (IVA)  
Sweden  
[www.iva.se](http://www.iva.se)



**Ric PARKER**  
*Treasurer*

The Royal Academy of  
Engineering (RAEng)  
United Kingdom  
[www.raeng.org.uk](http://www.raeng.org.uk)



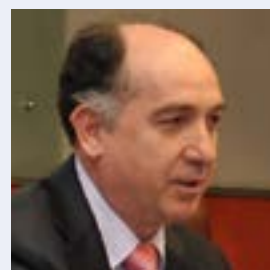
**Patrick MAESTRO**  
*Secretary General*

National Academy of  
Technologies of France (NATF)  
France  
[www.academie-technologies.fr](http://www.academie-technologies.fr)



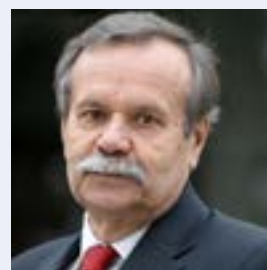
**Eloy Alvarez PELEGRY**  
*Vice Chair*

Real Academia de  
Ingeniería (RAI) Spain  
[www.raing.es](http://www.raing.es)



**Petar B. PETROVIC**  
*Member*

Academy of Engineering  
Sciences of Serbia (AESS)  
Republic of Serbia  
[www.ains.rs](http://www.ains.rs)



**Stane PEJOVNIK**  
*Member*

Slovenian Academy of  
Engineering (IAS)  
Slovenia  
[www.ias.si](http://www.ias.si)



**Jan WÖRNER**  
*Invitee*

National Academy of Science  
and Engineering (acatech)  
Germany  
[www.acatech.de](http://www.acatech.de)

Patrick MAESTRO, Fellow of the National Academy of Technologies of France, was elected as Secretary General of Euro-CASE at the Board meeting on 14 June 2021.

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

- Miklós BENDZSEL,  
Hungary (HAE)
- Torbjörn DIGERNES,  
Norway (NTVA)
- Benoit DUBUIS,  
Switzerland (SATW)
- Sebastião FEYO DE AZEVEDO,  
Portugal (PAE)
- Mihai MIHAITA,  
Romania (ASTR)
- Vedran MORNAR,  
Croatia (HATZ)
- Mark PLESKO,  
Slovenia (IAS)
- Tuula TEERI,  
Sweden (IVA)
- Jan WÖRNER,  
Germany (acatech)

### Euro-CASE staff:

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



# EDITORIAL

by Tuula Teeri and Patrick Maestro

## EURO-CASE: 30 YEARS OF COLLABORATION OF ACADEMIES OF ENGINEERING AND TECHNOLOGIES

In 2022, we celebrated the 30<sup>th</sup> anniversary of Euro-CASE. This was an opportunity to reflect upon the many achievements of this prestigious organisation over the past decades, as well as look to the future and how Euro-CASE can fulfil its mission in supporting society to overcome the challenges of tomorrow

From its very beginning, the mission of Euro-CASE has been to pursue, **encourage and maintain excellence in the fields of engineering, applied sciences and technology**, and promote their science, art and practice for the benefit of the citizens of Europe.

From 1995 to 2006 Euro-CASE organised the European ICT Prize. At this time, it was the most distinguished award for innovative products and services that represented the best of European innovation in ICT.

Since 2016 Euro-CASE has become one of the partner academy networks in the SAPEA consortium (Science Advice for Policy by European Academies) which is part of the Scientific Advice Mechanism (SAM) to the European Commission. The SAM provides independent scientific advice to the College of European Commissioners to support their decision making. SAPEA brings together the outstanding knowledge and expertise from over 110 academies, young academies and learned societies in over 40 countries across Europe, spanning the disciplines of engineering, humanities, medicine, natural sciences, and social sciences.

It has been our great privilege and a very enriching experience to be able to participate in this consortium and work alongside all the involved academy networks (Academia Europaea, ALLEA, EASAC, FEAM and YASAS).

In this context, Euro-CASE led the production two SAPEA evidence review reports “*Novel carbon capture and utilisation technologies: research and climate aspects*” and “*A systemic approach to the energy transition in Europe*”, 2 of the 13 reports published



Eloy Alvarez Pelegry (RAI) - Albert Husniaux (ARB) - Patrick Maestro (NATF)

## ENCOURAGE AND MAINTAIN EXCELLENCE IN THE FIELDS OF ENGINEERING, APPLIED SCIENCES AND TECHNOLOGY

Since its creation in 1992, Euro-CASE was led by:

- 7 Chairs of the Board from 6 different member countries
- 5 Secretaries General, who organised our association's activities.

On behalf of Euro-CASE, we thank all of them for their invaluable contributions to make Euro-CASE what it is today.

**Our ambition for the future of Euro-CASE is to continue pursuing our mission to inform policies at the European level**, notably through our participation in SAPEA. We also strive to develop and implement a communication strategy to increase the visibility, reach and impact of Euro-CASE in Europe and particularly in member countries.

We will also provide support to our Greek and Italian colleagues for the on-going creation of Academies of Engineering and Technologies in their respective countries.

On the occasion of this 30<sup>th</sup> anniversary celebration, each member academy of Euro-CASE, as well as the past Chairs and Secretaries General present on that evening, have received the engraved medal that was commissioned for this occasion.

We extend our warmest thanks to all Euro-CASE members for their active and unwavering support.



Tuula Teeri

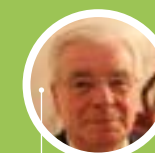


Patrick Maestro

### MANY FORMER CHAIRS AND SECRETARIES GENERAL OF Euro-CASE HAVE EXPRESSED THEIR SUPPORT FOR THE ASSOCIATION BY ATTENDING EURO-CASE'S 30<sup>TH</sup> ANNIVERSARY.



Basil Butler (UK)  
Chair 1992 - 1997



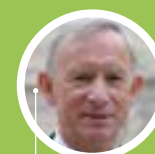
Valentin Van den Balck (B)  
Chair 2001 - 2005



Lena Treschow Torell (SE)  
Chair 2008 - 2012



Reinhard Hüttel (DE)  
Chair 2013 - 2020



Bruno Jarry (FR)  
SG 2007 - 2010



Jacques Lukasik (FR)  
SG 2011 - 2016



Yves Caristan (FR)  
SG 2017 - 2021





# HIGHLIGHTS OF PUBLICATIONS 2022

## SAPEA

Science Advice for Policy by European Academies

The SAPEA project began in 2016 with funding from the EU's Horizon 2020 framework programme and has since continued its activities with funding from the Horizon Europe framework programme. SAPEA comprises Academia Europaea, ALLEA, Euro-CASE and FEAM, and welcomed into the consortium the network of young academies (YASAS) in 2022, thus representing over 110 Academies in over 40 European countries.

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

In 2022, SAPEA published two Evidence Review Reports with the support of its member academies, Euro-CASE was involved in one of them. Euro-CASE also took leadership in launching the process of updating the SAPEA quality assurance guidelines, which ensure the excellency, independency, and transparency of the approaches to prepare these reports, and of the scientific advice provided to the Commission. Details are given below.



## IMPROVING CANCER SCREENING IN THE EUROPEAN UNION

The evidence review report Improving cancer screening in the European Union has been officially launched on 2 March 2022.

The evidence gathering process was overseen by two project chairs. Three expert workshops were organised and three corresponding rapid literature reviews were undertaken by Cardiff University. Organized cancer screening programmes save lives. The earlier a cancer is diagnosed, the greater the chances of treating it successfully and straightforwardly. This report explores the underlying principles, governance and feasibility of organized cancer screening programmes, and how existing programmes for breast, colorectal and cervical cancer could be improved throughout the EU. It also covers the evidence for extending organized, population-based screening to other cancer types, notably lung and prostate, along with recent advances in targeting the type and frequency of testing according to the level of individual risk.



## STRATEGIC CRISIS MANAGEMENT IN THE EU

The evidence review report Strategic crisis management in the EU has been officially launched on 22 November 2022.

The following three candidates, members of Euro-CASE academies, were selected for membership in the Working Group:

- Claudia Eckert (acatech – Germany),
- Kristian Lauterbach (ATV – Denmark), and
- Ortwin Renn (acatech – Germany).

The European Union is confronted with an increasing number of crises with growing complexity, causing suffering and other devastating consequences. Improving crisis management has become an essential issue for protecting and enhancing present and future wellbeing in the EU and globally. In response to this challenge, the Scientific Advice Mechanism to the European Commission are presenting policy recommendations to improve crisis management frameworks.

## CONFERENCE: SCIENCE ADVICE UNDER PRESSURE

This major public conference organized by the Scientific Advice Mechanism Unit brought together policymakers, science advisors, researchers and other professionals on 27-28 April 2022 in Brussels.

A series of panels and workshops provided participants with deeper insights and an opportunity for discussions about science advice and the challenges it faces today. Best practice and knowledge were exchanged by speakers across sectors.

Recordings are available on the conference website.



allea





## TOWARDS SUSTAINABLE FOOD CONSUMPTION IN THE EU



In 2022, SAPEA was asked to support the European Commission's Group of Chief Scientific Advisors in preparing advice on the topic Towards sustainable food consumption in the EU.

It proposes to have an impartial, independent and systemic approach with insight of experts with a multidisciplinary background in order to inform the

revision of the EU's Farm to Fork strategy. The main question to the European Commission's Group of Chief Scientific Advisors is therefore:

What tools could be used at EU level, in addition to those mentioned in the 2020 Farm to Fork Strategy, to overcome the barriers preventing consumers to adopt sustainable and healthy diets, fostering the necessary change towards sustainability in the food environment? A call for nominations of experts was published and sent to all the member academies of the 5 SAPEA Networks. A selection committee was established to choose the working group experts, following the SAPEA procedures. SAPEA therefore assembled an interdisciplinary working group of 17 experts in the different aspects of food consumption. The working group met 3 times in 2022 and the report is expected to be published in the Summer 2023.

## UPDATE OF THE SAPEA QUALITY ASSURANCE GUIDELINES



In 2022, SAPEA set up a working group and a staff task force aiming 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 working group chair.

The guidelines guarantee the excellence and independence of the scientific advice provided by SAPEA through high levels of transparency. Following several working group meetings and inputs from the task force, the guidelines are planned to be published in Summer 2023.

# UPCOMING TOPICS AND PROJECTS

## INTERACTIONS BETWEEN ACADEMIES AND SHARING BEST PRACTICES

In 2022, SAPEA set up a working group and a staff task force aiming to <sup>(1)</sup> organize a series of best practice workshops for academies to share best practices on science for policy; <sup>(2)</sup> develop a survey gathering information about the academy landscape in Europe.

Euro-CASE is leading this effort for SAPEA and appointed Elin Elliot, IVA head of the external relations unit, as working group chair. These activities take advantage of the SAPEA network to both better understand the diversity of the academy landscape in Europe and provide opportunities to academies to exchange practices and experience on several topics related to science advice.

Following several working group meetings and inputs from the task force, a workshop plan was determined by SAPEA consisting of 6 workshops to be organized by the SAPEA networks in 2023 and 2024. A draft survey was also produced by the task force. Once approved by the working group, the survey will be conducted in 2023 and the results summarized in a report to be published in Summer 2023.

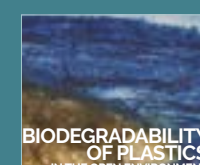
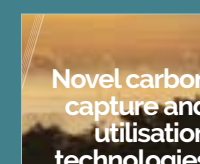
## UPDATE OF THE SAPEA SUSTAINABILITY PLAN

In 2022, SAPEA set up a working group and a staff task force dedicated to the strategic development of SAPEA. Euro-CASE has appointed Patrick Maestro, Secretary General, to represent Euro-CASE in the working group.

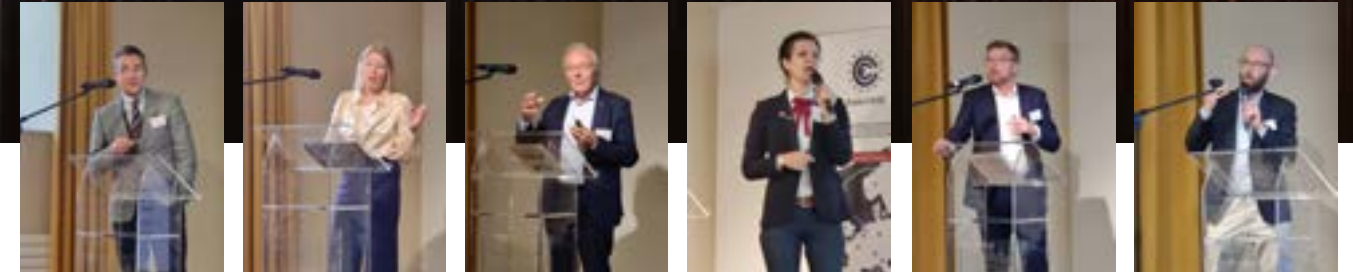
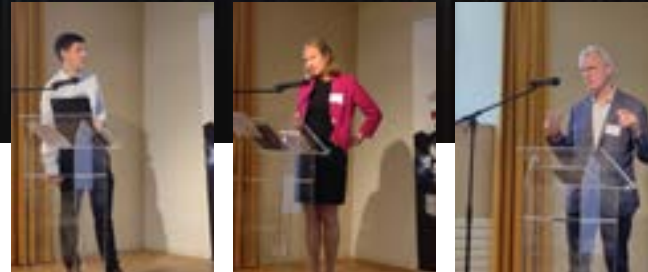
The task force has met in December to start the internal review. This will be followed by a wider consultation with key stakeholders of SAPEA and the development of a new strategic development plan in 2023.

As a reminder, a summary of SAPEA Evidence Review Reports and other scientific inputs submitted to the European Commission is given below :

- 1| 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.
- 2| FOOD FROM THE OCEANS:**  
Request from Commissioner Vella, GCSA opinion and SAPEA Evidence Review Report published November 2017 in the presence of Commissioner Moedas.
- 3| NOVEL CARBON CAPTURE AND UTILISATION TECHNOLOGIES:**  
Request from Commissioner Cañete, GCSA opinion and SAPEA Evidence Review Report published May 2018.
- 4| AUTHORISATION FOR PLANT PROTECTION PRODUCTS IN EUROPE:**  
Request from Commissioners Andriukaitis and Moedas, GCSA opinion and SAPEA Evidence Review Report published June 2018.
- 5| 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.
- 6| 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.
- 7| 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.
- 8| A SUSTAINABLE FOOD SYSTEM FOR THE EU:**  
Request from DG SANTE, GCSA opinion and SAPEA Evidence Review Report published in April 2020.
- 9| 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.
- 10| 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.
- 11| IMPROVING CANCER SCREENING IN THE EUROPEAN UNION:**  
How can cancer screening programmes be improved throughout the EU?
- 12| 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.



# INTERNAL EURO-CASE TOPICS: PLATFORMS



From left to right: Ben McAlinden (UK) / Rebecca Ebner (DE) / Bertrand van Ee (NL) / Janus Juul Eriksen (DK) / Elin Elliot (SE) / Joos Vandewalle (BE) / Anna Fabijanska (PL) / Jonathan Narbett (UK) / Jacek Kolanowski (PL)

## EARLY CAREER PROFESSIONALS (ECP)

In 2020, a Euro-CASE Working Group chaired by the Royal Academy of Engineering (UK) was appointed to carry out a scoping exercise on how the Euro-CASE network can enhance its engagement with ECPs, as the emerging experts and leaders within science, technology and engineering. The Working Group presented its recommendations in November 2020, including data on current levels of engagement, successful initiatives and mechanisms for engagement, and recommendations on how Euro-CASE itself and its member academies can enhance or scale up their approach.

On 20 September 2022, a workshop session for Euro-CASE stakeholders, focusing on one or more aspects of the recommendations, was organised. The aim of this workshop was to bring academy representatives together to share knowledge, lessons and good practices for engaging with ECPs. This builds on details of many existing academy initiatives revealed in the 2020 survey. Following this workshop, Euro-CASE will decide on follow-up actions to be undertaken to integrate ECPs more effectively in its work and member academies.



The workshop particularly included a discussion session which considered:

- \_\_\_\_\_ What can Euro-CASE do to support ECPs?
- \_\_\_\_\_ The roles of Young Academies.
- \_\_\_\_\_ The various models of senior Academies to include ECPs.
- \_\_\_\_\_ Redefining Research Excellence.

The following key points were raised during the discussions:

- ✗ Considering its own role, purpose and profile, in which direction does Euro-CASE wish to proceed, both in terms of its own activities, and in enabling knowledge sharing/capacity building within its network of member academies?
- ✗ Opinion and agreement on actions to be undertaken as a follow-up to recommendations made at the workshop:
  - Euro-CASE will from now on require the inclusion of ECPs as speakers and as guests in all of its annual conferences.
  - Euro-CASE will also add the materials and work that has already been done about ECPs on the website to showcase these activities and their outcomes.
  - Euro-CASE will host workshops similar to this one to continue the conversation. The annual meetings can be a good option to host the next workshops (one every two years?).
  - Euro-CASE should also explore how ECPs can inform and support the aims and direction of the Communications Working Group.
  - Euro-CASE's engagement can take place at the organisation level but also at the national level within each of the member Academies.

*A complete information (including presentations) is available on the Euro-CASE website.*



## CHALLENGES FOR SCIENCE AND TECHNOLOGY DRIVEN INNOVATION IN EUROPE



At the initiative of Erol Gelenbe, ARB-NATF-PAN, a working group has been setup to discuss

**‘Challenges for Science and Technology  
in the post-COVID period’.**

This group was composed of:

- Erol GELENBE, ARB, NATF, PAN
- Olivier APPERT, NATF
- Guy BRASSEUR, ARB
- Yves CARISTAN, *Secretary General Euro-CASE & NATF*
- Luc CHEFNEUX, ARB
- Peter COCHRANE, RAE<sub>Eng</sub>
- Véronique DEHANT, ARB
- Anna FABIJANSKA, PAN
- Véronique HALLOIN, ARB
- Jean-Paul HATON, ARB
- Michel JUDKIEWICZ, ARB
- Vladimir MRŠA, HATZ
- Ignacio J. PÉREZ-ARRIAGA, RAI
- Bernard RENTIER, ARB

The Working Group had the opportunity to make some key recommendations regarding significant changes in the way we organize and conduct our scientific and technical production and exchanges in the future.

The recommendations were the following:

- ✕ Strengthening Industry-University-Research Interactions,
- ✕ Strengthening the EU University Research Base,
- ✕ Accelerating transfer from Horizon Research and Innovation to Industry & Business,
- ✕ Developing fiscal incentives for cross-EU investments in technology start-ups,
- ✕ A Responsible Innovation principle” should be introduced to counterbalance the “Precautionary principle”.

*The recommendation paper  
is available on the Euro-CASE website.*

# PARTNERSHIPS

## FRONTIERS OF ENGINEERING

2022 | 19-22 October, Lake Bled, Slovenia

2023 | 15-18 October, Murray Hill, New Jersey

## ANNUAL CONFERENCE

2022 | “From open science to Innovation, an engineering challenge for Europe”

2023 | “Energy challenges in Europe. The role of Engineering in securing supplies and technologies”

## CAETS

2022 | “Engineering a better world – Breakthrough Technologies for Healthcare”

2023 | “E2–mobility”

## THE SAPEA CONSORTIUM

100 academies | 40 countries across Europe

## 2022/2023 CYCLE



Since 2010, Euro-CASE and the US National Academy of Engineering (NAE) have jointly organised meetings under the umbrella of Frontiers of Engineering (FOE). The objective of FOE Symposia is to bring together the next generation of leaders in engineering and create an early-career professionals network, to facilitate transatlantic engineering/technology collaboration and the transfer of new techniques and methods across four topics of major societal interest. Invited participants are selected among engineers, scientists and technologists below 45 years old including 60 representatives from both Europe and the United States.

On behalf of Euro-CASE, the Slovenian Academy of Engineering, supported by several sponsors, organized the 2022 EU-US Frontiers of Engineering symposium, on 19-22 October in Bled, Slovenia. 60 of the most promising early career engineers from the US and EU met for an intensive 2-1/2 day symposium to discuss cutting-edge developments in **four topic areas**:

- Prosthetics and AI;
- Supply Chain/Logistics;
- Post Lithium-Ion Batteries;
- and Zero-Carbon Buildings.

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

The 2023 EU-US Frontiers of Engineering Symposium (EU-US FOE) scheduled for 15-18 October, will be hosted by Nokia Bell Labs in Murray Hill, New Jersey.

The selected topics are:

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

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



# ANNUAL CONFERENCE

Since 2008, Euro-CASE member academies have organised a series of annual conferences, following a tradition of a different academy hosting the event each year.

2022 / 19 September,  
Brussels (Belgium)  
“From open science to Innovation, an engineering challenge for Europe”

2023 / 25 September,  
Madrid (Spain)  
“Energy challenges in Europe. The role of Engineering in securing supplies and technologies”

## 2022 ANNUAL CONFERENCE, 19 September, Brussels (Belgium)

The Euro-CASE Annual Conference 2022 took place in Brussels on 19 September. It was organised in the prestigious Academies Palace by the Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique (ARB) and the Royal Flemish Academy of Belgium for Science and the Arts (KVAB)

The theme was:  
“From open science to Innovation,  
an engineering challenge for Europe”

The goal of this Euro-CASE conference was to learn good practices from Euro-CASE partners and to debate the challenges and opportunities created by opening science.

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

The Royal Academy of Sciences, Letters and Fine Arts of Belgium (ARB) and Royal Flemish Academy of Belgium for Science and the Arts (KVAB) co-organized the 2022 Annual Conference of Euro CASE, on the theme of “From Open Science to Innovation: An Engineering Challenge for Europe.”

The secretary and coordinator of the conference was dr. (h. c.) ir. Albert Husniaux (ARB).

A steering committee composed of the following members of the ARB and the KVAB defined its content: Luc Chefneux, Albert Husniaux, Elisabeth Monard, Leopold Demiddeleer, Joos Vandewalle, Marc Acherooy, Guido Beazar, Erol Gelenbe, Michel Judkiewicz, Véronique Halloin, Isabelle Ferreras, Koenraad Debackere, Bart de Moor and Rik van de Walle. A Euro-CASE Board meeting and Board dinner were organized the day before the conference and an Early Career Professionals workshop the day after. On top of this, the Euro-CASE 30<sup>th</sup> Anniversary dinner was hosted.

The 2022 Annual Conference of Euro-CASE addressed questions and challenges during 3 sessions:

— Session 1, chaired by Prof. Em Vandewalle (KVAB): Promising ways of opening science

— Session 2 chaired by Dr. Demiddeleer (ARB): Technological and Industrial Innovation for the Prosperity of Europe

— Session 3 chaired by Prof. Ferreras (ARB): Technological Innovation for the Common Good of Humanity

Each session was composed of presentations by experts in the field and a panel debate. Good practices, challenges and opportunities were widely discussed and debated.

Almost 200 people registered for the conference, from 17 academies out of the 23 Euro-CASE member academies. It received great interest and very good feedback, underlining the relevance and importance of the topic. The conference programme, introduction and opening session, as well as the recording of the 3 sessions are available on the Euro-CASE website.

List of speakers (in order of intervention):

- Eloy Alvarez Pelegry (standing in for Prof. Tuula Teeri) (Euro-CASE),
- Elisabeth Monard (KVAB),
- Didier Viviers (ARB),
- Mariya Gabriel (EU Commissioner for Innovation, Research, Culture, Education and Youth),
- Joos Vandewalle (KVAB),
- Luc Chefneux (ARB),
- Karel Luyben (EOSC),
- Muriel Attané (EARTO),
- Clarisse Angelier (ANRT),
- Erol Gelenbe (National Academy of Technologies of France),
- Anna Fabijanska (Lodz University of Technology),
- Saifur Rahman (IEEE),
- Michel Judkiewicz (ARB),
- Léopold Demiddeleer (ARB),
- Benno Tiede (Philips Venture Capital Fund),
- Alex Nussem (EIRMA),
- Ric Parker (ex. Rolls-Royce),
- Liesbet Lagae (IMEC),
- Rudi Cuyvers (KU Leuven),
- Gabriele Dobenecker (Empa),
- Isabelle Ferreras (ARB),
- Marnik Vanclooster (UCLouvain),
- Peter Troxler (Rotterdam University of Applied Sciences),
- Michel Goldman (ULB).





## 2023 ANNUAL CONFERENCE, 25 September, Madrid (Spain)



On September 25, 2023, the “Real Academia de Ingeniería” will host, in its prestigious premises in Madrid, the 2023 Euro CASE Annual Conference.

The Real Academia de Ingeniería is an institution created in 1994 at the forefront of technical knowledge, which promotes excellence, quality and competence in Spanish engineering in its various disciplines and fields of action.

The theme of this conference is:  
**“Energy challenges in Europe.  
 The role of Engineering in securing supplies and technologies”**

The 2023 Euro-CASE Annual Conference will explore both the development of engineering solutions and the enablers, barriers and practicalities of technology deployment. Discussions will highlight how engineers can play a valuable role in guiding decision makers on how to make the best use of technological progress in order to solve complex transitional problems with many interdependencies.

Throughout this conference, we will showcase how engineers can provide valuable insights into the implementation of effective and sustainable solutions for the Energy challenges in Europe. Europe is in a clear stage of transformation in which energy transformation and digitisation are changing slowly but surely our society.

The Conference addresses three main issues related to these changes, electricity mix in which electrification and renewable are playing a greater role, the minerals and metals needed for the huge investments in renewables and electrification and the inevitable transformation of the oil and gas industries.



# ENGINEERING SUSTAINIBILITY

## NEW SOLUTIONS FOR ENVIROMENTAL, URBAN AND HEALTH SYSTEMS

Monday, 23 September  
Budapest, Hungary

2024  
ANNUAL CONFERENCE







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; and
- Foster establishment of additional engineering academies in countries where none exist.



## CAETS 2022



Annual meetings were hosted by the National Academy of Technologies of France from 26-30 September 2022. The technical symposium focused on

### “Engineering a better world – Breakthrough Technologies for Healthcare”

The aim of this conference is twofold: to communicate major international advances in health technology and to encourage the related cooperative efforts in the interest of sustainable economic growth.

The chosen theme encompasses in particular innovative treatments of diseases, drug discovery and development, contributions from the digital world, innovative imaging, neural research, restorative technologies, and finally social aspects, including ethical issues.

## CAETS 2023



Annual Meetings and Technical Symposium will be organized from 9 to 11 October in Zagreb, Croatia, hosted by HATZ, the Croatian Academy of Engineering.

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]

## PARTNERSHIPS

## THE SAPEA CONSORTIUM

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 110 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.**

Funded through the EC’s Horizon Europe framework, the SAPEA consortium comprises **five European Academy networks:**

- 1 Academia Europaea (AE),
- 2 All European Academies (ALLEA),
- 3 European Academies’ Science Advisory Council (YASAS),
- 4 European Council of Academies of Applied Sciences, Technologies and Engineering (Euro-CASE),
- 5 Federation of European Academies of Medicine (FEAM).

The Scientific Advice Mechanism provides independent scientific evidence and policy recommendations to the European institutions by request of the College of Commissioners.

It consists of three parts:

The Group of Chief Scientific Advisors, seven eminent scientists whose role is to make policy recommendations, SAPEA, whose role is to review and synthesise evidence the SAM secretariat,

A unit within the European Commission whose role is to support the Advisors and liaise between the Scientific Advice Mechanism and the European Commission.



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# MEMBER ACADEMIES MAJOR EVENTS AND ACHIEVEMENTS IN 2022



## AUSTRIA

[www.oew.ac.at](http://www.oew.ac.at)

The new Presiding Committee July 2022:

- President Heinz Fassmann
- Vice-President Ulrike Diebold
- Christian Wendehorst
- Wolfgang Baumjohann

### ✕ HIGH LEVEL AWARDS:

The former President of OeAW, Anton Zeilinger was awarded the 2022 Physics Nobel-Prize.

### ✕ Future role of OeAW in Euro-CASE:

Clear Commitment to further strengthening and deepening the engagement of OeAW in Academy Networks like Euro-CASE, EASAC, ALLEA, FEAM and the like.

### ✕ OeAW Science and Society:

With the «Colloquium Digitale: Digitization, People and Society» OeAW recently initiated a lecture series dealing with digitization and artificial intelligence (AI).

Questions addressed: What social and individual opportunities do these developments open up? Where are the dangers? And what other effects can be expected? In 2022, the following lectures took place as part of “Colloquium Digitale”:

- Digitization and humanistic values
- Digital Identity
- Algorithms instead of physicians | Robots instead of nursing staff
- Gender bias in technology development
- Energy consumption of digital technologies

### ✕ Booklet series called “Akademie im Dialog”:

Highlights are presented in a booklet series called “Akademie im Dialog”. In 2022 OeAW published 25 and 26: “Russia’s war against Ukraine”. Lecture by Andreas Kappeler



## BELGIUM

ARB

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

✕ In 2022, the Royal Academy of Belgium celebrated its 250th anniversary. Several events were organized, of which the Euro-CASE Annual Conference “From Open Science to Innovation, an Engineering Challenge for Europe”, which was a great success, almost 200 people having registered. It should also be mentioned that its Technology and Society Class organized a public session devoted to the Meadows Report, The Limits to Growth, 50 years after its release.

✕ Its research Chair pertaining to Sustainable Finance, funded by the Belgian Sovereign Wealth Fund (SFPI FPIM), has been reconducted and a new post-doctorate recruited. His study is mainly focused on sustainable investment and its impact on the global transition. A series of public lectures and discussions were organized and are available online.

✕ The ARB welcomed in 2022 the 16 first 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. In four years the Collegium will be fully composed, comprising 40 members, 10 in each of the four Academy’s Classes, of which the Technology and Society Class.

## KVAB

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

✕ In 2022 KVAB was celebrating its 250th anniversary, together with ARB. As part of those celebrations ALLEA and Euro-CASE were invited to hold their annual meetings (annex symposium) in the Palace of the Academies in Brussels. The public and the organizers were very satisfied with the outcome of the meetings and symposia. Both symposia could count on the presence and/or cooperation of Mariya Gabriel, European Commissioner for Research, Science and Innovation. These two major events were:

✕ ALLEA – Transforming Science | Pathways Towards Sustainability and Trustworthiness, May 11-12 2022

✕ Euro-CASE – From Open Science to Innovation. An engineering challenge for Europe, September 19 2022

✕ Next to these, KVAB contributed through some of its members most notably to the activity of EASAC and CAETS.



## CROATIA

[www.hatz.hr](http://www.hatz.hr)

✕ Publication of the Academy scientific editions:

- “Annual 2021 of the Croatian Academy of Engineering”, 2022, the Academy members’ contribution to the development of the scientific-teaching system;
- “Engineering Power” Vols. 17(1) 2022, 17(2) 2022, ([www.hatz.hr](http://www.hatz.hr)), publication of HATZ comprising review articles covering different fields of engineering;

✕ Participation in the organization of scientific conferences, among which:

- Croatian Engineer’s Day, Zagreb, March, 2022;
- International conference “Printing & Design 2022”, Zagreb, May, 2022;
- Conference “7th Croatian Congress of Microbiology with International Participation”, May, 2022;
- 45th Jubilee International ICT Convention MIPRO 2022, Opatija, May, 2022;
- International conferences „Conference on Sustainable of Energy, Water and Environment System (SDEWES 2022)”, May, June, November, 2022;
- Hackathon “Brainhack Zagreb 2022”, December, 2022.

✕ More than 40 domestic and international events have been organized under the auspices of HATZ.

✕ Organization of the CAETS 2023 Annual Conference



## CZECH REPUBLIC

[www.eacr.cz](http://www.eacr.cz)

✕ The Engineering Academy of the Czech Republic participated in the US-EU Workshop on Intelligent Manufacturing organized by the Czech Institute of Informatics, Robotics and Cybernetics, Czech Technical University in Prague together with NSF USA. Invited speaker, Professor Wolfgang Wahlster of the DKFI Germany, eminent expert in the field of Industry 4.0 overtook Diploma of the Elected Foreign Member of the Engineering Academy of the Czech Republic from Professor Petr Zuna, EA CR President on this occasion.

✕ The Engineering Academy of the Czech Republic awarded the prize for the outstanding technical project “SPECIAL MULTIFUNCTIONAL GRINDER BUD100” for precision grinding of large engineering products. The grinder is characterized by a sophisticated solution of automatic stabilization of geometric accuracy by means of a built-in interferometer, an advanced superstructure environment of the CNC system with diagnostic and smart functions.

✕ Engineering Academy of the Czech Republic prepared a Program of Workshops and Conferences on the Energy Future of Czech Republic and assessment of its impact on the National Economy. The Workshops and Seminars will be organized in 2023.



## DENMARK

[www.atv.dk](http://www.atv.dk)

✕ Our five-year focus on developing Denmark as an international Science & Engineering region was successfully concluded with the “2030 Strategy for Denmark”, published at our Annual Meeting, May 10th. A new five-year focus evolves around mission driven innovation and will gather key Science & Engineering stakeholders around missions within three overarching themes: circular biobased economy, digitalization and decarbonization. This project is called “Guide to a Resilient Denmark” and was discussed at ATV’s Technology Summit, November 9th before its launch in 2023.

✕ September:

The Danish Center for Energy Storage held its Annual Meeting and was confirmed as one of the main platforms for developing energy storage in Denmark, covering the entire value chain from research and education to infrastructure and transmission.

✕ January:

The Sixth edition of the international conference “Torkil Holm Symposium: Visions in Chemistry” was successfully convened with participants from all over the world.



## FINLAND

[www.academies.fi](http://www.academies.fi)

✕ Major events in 2022:

- The Human Rights Committee of the Council of Finnish Academies (CoFA) established Risto Pelkonen Human Rights Award. The first Award was granted for Scholars at Risk Finland at event “Global science community – risks and responsibilities” in May
- Seminar “Basic research - a prerequisite for sustainable development” in October
- “Great Nobel Debate” in October

✕ Other major activities

- 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 science organizations to national decision-makers, science organizations and media.

✕ Executive Committee representatives of the Council of Finnish Academies:

- Chair/ Professor Markku Leskelä
- Vice-Chair/ Professor Hannu Koskinen
- Members/ D.Sc. (Tech.) Leni von Bonsdorff - Professor Kimmo Kaski



## FRANCE

[www.academie-technologies.fr](http://www.academie-technologies.fr)

✕ In 2022, the NATF organised the CAETS annual conference which took place on 27 and 28 September in France, at the Palais des Congrès in Versailles. This event constituted an opportunity to receive over 20 CAETS member countries gathered for the first time in person since the beginning of the health crisis. The theme of the conference was “Breakthrough technologies for healthcare”. Sessions covered innovative disease treatment and discovery, drug development, the contribution of digital technology, innovative imaging, neural (brain) research, restorative technology, and finally social aspects, including ethics. This event was a real success thanks to the support of the Foundation of the Academy, Dassault Systèmes and Air Liquide, Bettencourt Schueller Foundation, Servier, Paris Club of Innovation Directors.

✕ Publications:

- The CAETS Energy Working Group, chaired by the NATF Vice-President, Yves Bamberger, presented its report «Towards low-ghg emissions from energy use in selected sectors». This crucial report is all the more important as it is the result of work and collaboration between a large majority of CAETS member academies, which is a first within this organisation.
- Erol Gelenbe chaired the working group that produced the report to Euro-CASE «Challenges for European Science and Technology driven Innovation in Europe».
- The Chinese Academy of Engineering and NATF, have addressed in the report “Hydrogen: fundamentals and strategies in China and France/Europe for decarbonizing the economy”, the potential role of decarbonised hydrogen in achieving the zero net carbon emissions goal of their respective economies.

✕ Bilateral relations: 2022 was also an opportunity for the NATF to maintain its cooperative links with its European counterparts: IVA (Sweden) and acatech (Germany) by inviting their respective presidents to speak at academic events, as well as RAEng (United Kingdom) during a working meeting between the international relations delegates of both academies.



## GERMANY

[www.acatech.de](http://www.acatech.de)

✕ Mariya Gabriel, European Commissioner for Research, Innovation, Education, Culture and Youth, and acatech Presidents Jan Wörner and Reinhard Ploss launched the European Sounding Board on Innovation on 23 November 2022. The Sounding Board is an advisory vehicle that stimulates the further development of strategic aspects of the European Innovation Agenda.

✕ Federal Chancellor Olaf Scholz gave a keynote speech on innovation policy at acatech’s 20th anniversary event in Berlin on 18 October 2022. In his speech on European policy in Prague on 29 August 2022, the Chancellor emphasised, among others, the importance of a European data economy and the need for a European data space for the mobility of the future. The Chancellor considers the Mobility Data Space, initiated by acatech, as a lighthouse project.

✕ The President of acatech, Jan Wörner and his counterpart from the National Academy of Technologies of France, Denis Ranque, agreed to strengthen the academies’ cooperation in the field of energy and mobility.



## HUNGARY

[www.acatech.de](http://www.acatech.de)

✕ Last year the Hungarian Academy of Engineering had a total staff of 238 and an annual budget of nearly € 100,000. Its activities focus on the analytical, proposing and development support of Hungarian economic development, industrial strategy, innovation, higher education and the engineering profession. It has strong links with the public Budapest University of Technology and Economics, industrial innovation and R&D bodies and its own professional partners.

✕ In 2022, MMA reports were published on new directions in materials science, digital support for the food industry and challenges in transport management - the latter including a conference. For the third time, the Michelberger Master Prize was awarded, this time in the field of plasmonic biosensing, with a special € 10,000 grant and a plaque for a young researcher and his master. We organise scholarship and representation visits as a member of Euro-CASE and CAETS, and support industrial design and innovation exhibitions of excellence. Detailed information on HAE will be available in the SAPEA Survey.





## IRELAND

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

### PUBLICATIONS

- ✕ IAE/RAE Memorandum of Understanding – May 2022 – President & Chief Executive.
- ✕ Europe's Energy Crisis – Implications for Ireland – May 2022 – Energy Committee.
- ✕ Towards 2040 – The Atlantic City Regions – Essential Infrastructure for Balanced Regional Development – July 2022 – Southern Region committee.
- ✕ IAE submission to Government White Paper on Enterprise Policy – July 2022 – Enterprise, Innovation and Education committee.
- ✕ IAE Review of Government Report on the Security of Energy Supply of Ireland's Electricity and Natural Gas Systems – October 2022 – Energy Committee.
- ✕ IAE - Restoring Confidence in Irish energy supply - November 2022 – Energy Committee.
- ✕ Integrated Land Use and Transportation Strategy for Dublin - January 2023 – In conjunction with Royal Institute of Architects of Ireland.
- ✕ CAETS Energy Report 2022 - Towards Low-GHG Emissions from Energy use in Selected Sectors- published February 2023 – input by Energy Committee.

### EVENTS

- ✕ Attendance at RAE Awards ceremony in London – July 2022 – Attended by IAE President. Opportunity to network and followed by meeting in RAE HQ to progress the joint MoU.
- ✕ Bernard Looney event – September 2022 – Welcome to Bernard Looney (BP CEO) as new Fellow at in-person event and address by Bernard on future direction of BP plc.
- ✕ Euro-CASE annual conference – September 2022 – Ways of opening science for the prosperity of Europe – Attended by IAE President.
- ✕ CAETS annual conference – September 2022 – Breakthrough technologies for Healthcare – Attended by IAE President.
- ✕ NI Committee meeting in Belfast – October 2022 – To discuss opportunities for Academy growth.



## ITALY

The new Italian Academy of Engineering and Technology has been created as an association. Since 2018, Italy has been represented within Euro-CASE by a Consortium composed of the Consiglio Nazionale delle Ricerche (CNR), Istituto Nazionale de Fisica Nucleare (INFN), Istituto Italiano di Tecnologia (IIT) and Politecnico di Torino, which aimed to create an Italian Academy of Technologies. With the support of the Accademia Nazionale dei Lincei, this goal has been achieved in September 2022. In January 2023, the first steering council has been elected, composed by Speranza Falciano (INFN) as President, Massimo Morbidelli (Politecnico Milano) and Francesca Zarri (CTO ENI) as Vicepresidents, Maria Chiara Carrozza (CNR President), Franco Ongaro (CTO Leonardo) and Nobel laureate Giorgio Parisi, followed by the appointment of Matteo Pardo (CNR) as Secretary General. The Academy is acting to receive official recognition and set up the industrial representation body.



## NETHERLANDS

[www.acti-nl.org](http://www.acti-nl.org)

- ✕ Academic Startup Competition  
AcTI once again organised the Academic Startup Competition in 2022 in collaboration with VSNU and Techleap. In this way, AcTI, the VSNU and Techleap aim to build a long-term collaborative relationship.

- ✕ Meeting Young Innovators  
Young Innovator members are regular members of AcTI with the same rights and obligations as any other AcTI member, but with a temporary membership for the duration of two years. Each Young Innovator has been assigned a so-called buddy within AcTI who can guide the young entrepreneur within AcTI and provide advice on the development of his/her business.

In 2022, the Young Innovators Committee started up special Young Innovators meetings held prior to the AcTI member meetings, which are organized 5 times per year. Each YI meetings was given a special topic.

- ✕ Position paper 'Emerging stronger from the crisis together' (Samen sterker uit de crisis)  
Building on the report 'Strategic recommendations of the Vaccine Production Taskforce' by The Netherlands Academy of Technology and Innovation (AcTI) member Hans Schikan, the AcTI Roundtable 'Emerging stronger from the crisis together' looked at general lessons to be learned at system level from the COVID-19 crisis.

- ✕ Netherlands Academy of Engineering  
The year 2022 was dedicated for the larger part to the joint efforts of starting up the Netherlands Academy of Engineering (NAE). The AcTI board and the NAE committee worked hard at a project plan on the substantive underpinnings of why the NAE should be created: The Netherlands Academy of Engineering (NAE) brings together the top experts active in technological sciences and applied research and development.  
As of July 2023 the Netherlands Academy of Engineering has officially started building up the NAE with a fully staffed board and a new office in The Hague. NAE will have its launch, including the inauguration of the new Fellows, in November 2023.



## NORWAY

[www.ntva.no](http://www.ntva.no)

- ✕ The energy crisis in Europe: Seven workshops and summary report with policy recommendations produced: The energy crisis, more than a price crisis, Fair distribution and market design, Energy production and use in Norway, Carbon pricing, Energy efficiency in construction and industry, Security of supply, The energy situation in Europe, what now?
- ✕ NTVA honorary prize award ceremony for groundbreaking technology. Magne Dæstøl, ex Elkem was awarded NTVA's prize for removing the pollutant microsilica from the smoke of Elkem's silicon production and making it a profitable business: a valuable additive to extra-strength concrete. The seminar talks focused on transforming Norway's process industry to a greener production.
- ✕ NI Committee meeting in Belfast – October 2022 – To discuss opportunities for Academy growth.



## POLAND

[www.pan.pl](http://www.pan.pl)

- ✕ The Polish Academy of Sciences (PAS) conducted activities to support researchers from Ukraine who had to leave the country due to the Russian invasion. Apart from the PAS special financial allocation, the U. S. National Academy of Sciences and other foreign partners raised their funding for this purpose. The scholars, conducting research at PAS units for a period of 1 to 10 months, received support of about PLN 5,000 per month. Over 220 Ukrainian citizens were hosted by the PAS.
- ✕ In December 2022, the PAS launched a new long-term financial support program for Ukrainian research teams cooperating with PAS units. Implementation of selected projects will begin in June 2023.
- ✕ On June 1-2, 2022, in Warsaw, the meeting of presidents of the Academies from Ukraine, USA, Germany, UK and Denmark took place. The participants discussed the current needs of scientific institutions in Ukraine and opportunities for assistance. A 10-point action plan for the reconstruction of science in Ukraine was created.



## PORTUGAL

[www.ordemengenhadores.pt](http://www.ordemengenhadores.pt)

### Election of Board Members:

- Prof. Sebastião José Cabral Feyo de Azevedo, President
- Prof. Laura Maria Mello Saraiva Caldeira, Vice-President
- Prof. Maria da Ascensão Miranda Reis, Treasurer
- Prof. Alberto Joaquim Milheiro Barbosa, Vogal
- Prof. Luís Alberto Proença Simões da Silva, Vogal



## ROMANIA

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

- ✕ Academic Days of Technical Sciences Academy of Romania International Conferences with the theme: Efficiency and effectiveness in engineering - (October 6 -7, 2022), partners: University of Petrosani city and Gerom International SA – Petrosani branch. The papers are published in Proceedings.
- ✕ Publication:
  - Monograph of Buzau city – coauthor: Mihai Mihăiță, 2022;
  - Pages from the development of the industry of Romania, coordinator: Valeriu V. Jinescu; The construction of the engines, machines and means of transport – the second part, 2022;
  - Journal of Engineering Sciences and Innovation (JESI), quarterly journal indexed in six databases until the end of 2022;
- ✕ Awarding prizes for scientific papers, appeared in 2020.
- ✕ Board members (5 members and an honorary member): the management of our academy has changed in 2022, as follows:
  - Valeriu V. JINESCU (vjinescu@yahoo.com)
  - President; Polidor BRATU (polidor.bratu@icecon.ro)
  - Vice President; Ioan VIDA-SIMITI (Vida.Simiti@stm.utcluj.ro;vidasimiti@yahoo.com)
  - Vice President; Nicolae ȚĂPUȘ (ntapus@gmail.com)
  - Vice President; Vladimir RĂSVAN (vladrasvan@gmail.com)
  - General Secretary; Mihai MIHĂIȚĂ (mihai.mihaita@agir.ro)
  - Honorary President.



## SERBIA

[www.ains.rs](http://www.ains.rs)

- ✕ Meetings of the Steering Committee of Academy of Engineering Sciences of Serbia  
Relaxed, but still ongoing pandemic conditions in the country lowered down possible activities, and much prolonged elections for new members (which started in April 2019 and for new presidency).
- ✕ 19.1.2022 – continuation of the procedure for voting of the new members of AESS. Statement on moratorium on activities of AESS for discussion with Rio Sava Explorations (Rio Tinto) on technical and ecological aspects of mining of lithium nearby Drina river. Report on successfully organized Round table on "Hydrogen in Energy System of Serbia" on Jan.10, 2022 with discussions and conclusions.
- ✕ 25.2.2022 – Euro-CASE Executive Committee in Paris.
- ✕ 30.3.2022. – General Assembly for election of new members. 22 corresponding members, 2 honorary members, 9 foreign members, 11 full members have been elected. During the pause for counting the votes, the lecture of Prof.Mesarevic "Thermal power plants on nuclear fuels – yesterday, today, tomorrow" has been presented and afterwards put on the Academy's web site.
- ✕ 11.4.2022. – Report on elected new members for all departments. Starting of the procedure for election of a new President, two Vice-Presidents and a General Secretary of the Academy.
- ✕ 20.4.2022. – President of AESS Prof.Kovacevic proposes Prof.Nedovic to be Academy's new representative to Euro-CASE.

- ✕ 26.05.2022. – The list of candidates for a new presidency has been fixed. New General assembly for voting for presidency has been scheduled for 1.7.2022. Prof. Nedovic has been elected to be a new representative to Euro-CASE.

- ✕ Various conferences:
  - Department of Biotechnical Sciences – New technologies in agriculture and forest engineering and their applications, Belgrade, 24.11.2022.
  - Department for Mining and Geology – Symposium on Operational Research, Vrnjaka Banja, 19-22.9.2022.
  - Danube Business Forum, Banja Vrdnik, 26-27.9.2022. with participation of 3 AESS members.



## SLOVENIA

[www.ias.si](http://www.ias.si)

- ✕ "Frontiers of Engineering": In cooperation with the National Academy of Engineering (USA) and Euro-CASE, IAS has co-organised the Frontiers of Engineering Symposium from 19.-22. of October 2022 in Bled, Slovenia with the topics: Post-lithium Batteries, Prosthetics and AI, Supply Chain/Logistics, Sustainability in Buildings.
- ✕ "Strategic consultation: Advanced technologies for achieving green goals - digitalization": In May 2022 a one-day conference was organised by IAS with lecturers from different organisations – governmental, science institutes, non-governmental organisations. Conclusions have been presented to the new government of Slovenia.
- ✕ "Understanding the Innovation Process and Sustainable development": IAS continued a long-term analysis of the educational system in Slovenia, the analysis of Slovenia's research, development and innovative achievements. It includes recommendations for improvement on these topics. In the year 2022 a review analysis is being made and the results of the analysis will be published in 2023.



## SWEDEN

[www.iva.se](http://www.iva.se)

- ✕ The destination for this year's Royal Technology Mission was France and Germany, where the delegation from IVA, led by H.M. The King participated in study visits in the spirit of the green transition. In the fall IVA also hosted Technology and Freedom - A dialogue at the intersection of tech, policy and economics.
- ✕ To strengthen Sweden's cybersecurity and thereby increase competitiveness, IVA has analysed the situation. IVA's conclusion is that Sweden is not adequately equipped to counter cyber threats. IVA notes that, among other things, greater political determination, more effective information exchange, and targeted investments in skills development are needed.
- ✕ IVA presented an analysis on how large-scale production of hydrogen can affect the power system. The conclusion is that hydrogen is expected to primarily be used as a feedstock in the industry and as fuel for heavy transportation, where direct electrification is too expensive or technically challenging.



## SWITZERLAND

[www.satw.ch](http://www.satw.ch)

- ✕ European Conference on Optical Communication, 20.09.2022  
SATW invited 12 high school classes from all over Switzerland to the European Conference on Optical Communication in Basel. After a student-oriented program in the morning, the high school students visited science talks and the international exhibition in the afternoon and thus gained authentic insights into an international conference.

- ✗ **Swiss Food Week, 14.-18.11.2022**  
Climate change, Covid, the war in Ukraine - the food supply is becoming more and more demanding. At the same time, Swiss food producers are already under high competitive pressure. But Swiss food production is also on the move - it researches, develops and produces many innovations. With the «Swiss Food Week» we provide insights into the latest developments in plant proteins.
- ✗ **Technology Days: Electic Mobility, 29.09.2022**  
More than a third of the total energy consumption in Switzerland is due to passenger and goods transport. "Is electromobility an underestimated element of the energy transition?" - This was the topic of the main event of the Technology Days 2022. In lectures and a panel discussion, people talked about what mobility can contribute to the energy transition.



## UNITED KINGDOM

[www.raeng.org.uk](http://www.raeng.org.uk)

- ✗ **Open Burning of Waste**  
In 2022, RAEng's Engineering X, Safer End of Engineered Life programme, in partnership with the United Nations High Level Climate Champions (UNHLC) Team, launched a multi-stakeholder partnership to end the open burning of waste in Africa by 2040, chaired by African Ministerial Conference on Environment and United Cities and Local Governments of Africa. This new partnership aims to mobilise African governments and municipalities to improve waste management through technology, infrastructure, finance, and behaviour change. In partnership with UNHLC, the report report Open burning of waste in Africa: Challenges and opportunities was published, authored by Professor Desta Mebratu and Dr Andriannah Mbandi. The report called for four areas of change to tackle this complex issue: attitudinal, institutional, infrastructural and operational.  
*Engineering X is an international collaboration founded by Lloyd's Register Foundation and Royal Academy of Engineering.*
- ✗ **Frontiers Symposium in Ethiopia**  
RAEng's Frontiers Programme hosted an in-person symposium in Addis Ababa, Ethiopia in October 2022. The event, titled «Engineering inclusive economies,» focused on the importance of developing emerging technologies with the principles of inclusion, so that they can be used as multipliers of growth and tackle various challenges. Following each Frontiers symposium, participants have the opportunity to apply for seed funding to help build on collaborative partnerships established at the event. The next symposium will take place in Bangalore, India in July 2023.
- ✗ **Pandemic Preparedness Global Review**  
In partnership with Dalberg Advisors, RAEng's Engineering X Pandemic Preparedness programme published a global review of the engineering response to COVID-19. The review identifies key vulnerabilities in pandemic preparedness and calls for comprehensive action by policymakers, academics, and business leaders worldwide to ensure future pandemic resilience.
- ✗ **NEPC Hydrogen Report**  
In September 2022, RAEng's National Engineering Policy Centre published a report titled «The role of hydrogen in a net zero energy system.» The report offers a comprehensive understanding of hydrogen's value as an energy sector, low-carbon hydrogen production methods, and policy recommendations for government to ensure the benefits of hydrogen for a net zero energy system are realised.

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# EURO-CASE MEMBER ACADEMIES: MAJOR EVENTS AND ACHIEVEMENTS IN 2022

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