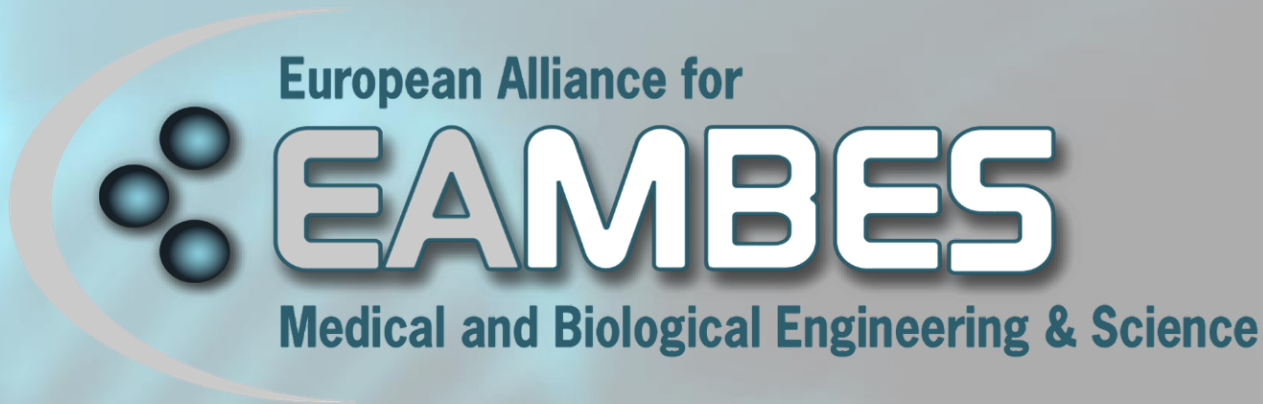


# EAMBES 2023: State of the Alliance



**European Alliance for Medical and Biological  
Engineering and Science (EAMBES)**

<https://eambes.org/>



# EAMBES 2023: State of the Alliance

**Dear Members of EAMBES, and all European Biomedical Engineers and Scientists,**

In 2023, as COVID-19 evolved to a more manageable illness, many aspects of daily life routines gradually reverted back to a semblance of normalcy.

**This shift** spurred **a new direction in medical and biological engineering, moving beyond** immediate crisis response and aiming for long-term healthcare solutions.

The year 2023 brought several notable breakthroughs in biomedical engineering, paving the way for tailored and precise treatment approaches.

Among the key achievements were groundbreaking developments in **gene editing technology**, facilitating precise modifications in genetic material for potential treatment of genetic diseases. **RNA technologies** have experienced a significant surge, with advancements ranging from mRNA vaccines aimed at preventing common respiratory and other illnesses to groundbreaking tRAN therapeutics tailored for treating rare diseases.

**Nanotechnology** has gained prominence in biomedical research, offering unprecedented precision in drug delivery and diagnostics. Researchers have developed smart nanoparticles capable of responding to changes in the body, releasing drugs when and where they are needed most. Significant progress in **3D bioprinting** technology has facilitated the fabrication of complex tissue architectures and the production of fully operational human organs, presenting fresh opportunities for organ transplantation and the field of regenerative medicine.

Additionally, advancements in **neural engineering** led to the refinement of brain-computer interfaces, enhancing their effectiveness in restoring motor function for individuals with paralysis and neurological disorders.

The booming field of **medical wearables** continues to break new ground. New sensors and implantable devices emerge as a newly announced oesophageal sphincter simulator to combat the prevalent issue of gastroesophageal reflux. Additionally, wearables are becoming increasingly more flexible, seamlessly integrated into smart textiles. An impressive instance is the use of metamaterial-based textiles, designed to enable the connection of implanted devices through clothing.

The landscape of **medical diagnostics** is rapidly evolving with breakthroughs on multiple fronts. Traditional methods are being revamped with innovations like a vest-like MRI coil that can be worn as a bra and produces a 3-fold improvement in signal to noise ratio; a multiplexed PET technique that can detect 2 radiotracers simultaneously; and a walk-through total-body PET scanner.

Even more, the year 2023 appears to mark the inception of a new era of **disruptive diagnostics**. AI algorithms have reached a level of sophistication where they can analyze intricate medical data, encompassing imaging and genetic information, to detect patterns and anomalies that might escape human observation. This not only accelerates the diagnostic process but also elevates the precision of disease identification, fostering early intervention and optimizing treatment approaches. Additionally, there's a promise to alleviate the burden on practitioners and transition diagnostics into a continuous and autonomous **point-of-care services**. Year 2023 brought us a glimpse into the

future of diagnostics with breakthroughs towards ultraportable or even wearable ultrasound scanners, illustrating a notable advancement poised to personalize ultrasound diagnostics.

These and many other breakthroughs underscored the continued innovation and transformative potential of biomedical engineering in improving healthcare outcomes, enhancing quality of life and even providing solutions to tackle emerging challenges such as the world-wide shortage of healthcare personnel.

Building upon past accomplishments, in 2023, **EAMBES persisted with strategic initiatives and a range of activities designed to establish biomedical engineers and researchers as crucial contributors to the EU's endeavors in health prevention and response:**

- EAMBES Public Affairs Working Group (PAWG) has established new relations with the European Parliament. **The 4<sup>th</sup> European Parliament Interest Group on Biomedical Engineering (EPIG BME)** was held on the 21 March 2023.
- In the context of this event, health experts including **EAMBES Councilors**, shared their key insights in an **interview**.
- EAMBES has been actively contributing to the **formulation of European Health Data Space (EHDS)**, providing revision and specific support to MPs involved in its drafting.
- EAMBES has developed **4 targeted Parliamentary Questions**; 2 of these have already been tabled for a response by the European Parliament (one on pragmatic solutions for gender gap in STEM, [available here](#), one on EHDS status and progresses, [available here](#)) while the other 2 are currently circulated amongst MEPs focusing on environmental impact of MedTech and on the impact of AI on MDR.
- EAMBES was invited to participate in **discussions on capacity building** to tackle the overarching shortage of healthcare personnel. This led to the inauguration of an **Informal Working Group on Capacity Enhancing Innovation (CEI) in the Health Sector**.
- EAMBES **successfully concluded the first Horizon project**, in which we have participated as beneficiary.
- A **new EU project commenced** with EAMBES as a partner, and we received invitations to participate in **4 additional compelling EU proposals**. We believe that EAMBES has a unique position in supporting EU Projects' dissemination and exploitation at the highest-level fostering dialogue among scientists and policymakers.
- As a direct result of our participation in a research and innovation project, EAMBES is now proud to announce its **first 4 scientific publications**.
- A **series of webinars** was inaugurated to discuss critical issues such as gender balance, regulatory matters, green and sustainable research and development with the contribution of biomedical engineering.
- EAMBES **Conferences** held and planned:
  - NBC2023, Liepaja, Latvia, 12-14 of June 2023, <https://nbc2023.lmifb.lv/>
  - MEDICON2023, Sarajevo, Bosnia-Herzegovina, 14-16 September, 2024, [www.medicon2023.com](http://www.medicon2023.com)
  - EMBEC2024, Ljubljana, Slovenia, 9-13 June 2024, <https://www.embec2024.org/>

- EAMBES welcomed **2 new members**.
- EAMBES elected the new **Class 2023 of 9 Fellows** and **Class 2024 of 7 Fellows**.
- EAMBES supported **9 events**.

More details are reported below. Moreover, EAMBES Secretariat established an **infrastructure for easy dissemination** of news to all our members, so stay tuned for a continuous feed of updates.

## EAMBES European Parliament Event

The **4<sup>th</sup> EAMBES European Parliament Event** was held on 21 March 2023 focusing on the topic **“Pandemic Management and Preparedness: Telemedicine and the Role of Innovative Technologies in Securing a Safer Future”**.

The event hosted in the European Parliament, was organised by Member of the European Parliament (MEP) Stelios Kypourouopoulos (EPP, Greece) in collaboration with EAMBES, with participation of Officers from the World Health Organization, which reported about WHO work during COVID, in collaboration with BMEs. This meeting was centered on the role of innovation and technology in shaping a safer and healthier future, with a key focus on telemedicine as an innovative tool for pandemic response and overcoming geographical and social barriers to healthcare access. The multiple, high-level speakers highlighted the substantial increase in telemedicine use during the pandemic and its potential to transform healthcare delivery through AI, clinical protocols, legal frameworks, and change management. Emphasising the importance of sustained momentum, the discussions also stressed the significance of widespread collaboration in pandemic management, involving academia, the economy, media/culture, the natural environment, and politics. The PandeVITA platform (developed in the respective project where EAMBES is participating as a full partner) was introduced to define legal and ethical boundaries, user needs, and vulnerabilities during pandemics. The impact of COVID-19 on the MedTech sector, the need for European strategic autonomy, and adherence to EU legislation were also discussed, concluding with an emphasis on global pandemic management, access to medical devices, and the importance of cooperation and lessons learned for operational preparedness.





The meeting offered valuable insights into the challenges and opportunities presented by the pandemic, highlighting the pivotal role of innovation and technology in ensuring a secure and healthier future for all.

The full report on the event has been published in Health Technology journal: Report of the European Health Tech Summit. *Health Technol.* **13**, 343–346 (2023). <https://doi.org/10.1007/s12553-023-00760-4>

In the context of the EAMBES Event, health experts recorded their key takeaways which were then published the social media account of the hosting MEP Stelios Kypouropoulos, highlighting the additional value of investing and supporting the biomedical sector in the EU. The event registration is available on the EAMBES YouTube Channel: <https://www.youtube.com/watch?v=iDT2e3JOinw>

You can watch the interviews here: [https://www.linkedin.com/posts/stelios-kypouropoulos-63201042\\_europeanhealthtechsummit-health-digitalhealth-activity-7054070348836667393-yz5A/?utm\\_source=share&utm\\_medium=member\\_desktop](https://www.linkedin.com/posts/stelios-kypouropoulos-63201042_europeanhealthtechsummit-health-digitalhealth-activity-7054070348836667393-yz5A/?utm_source=share&utm_medium=member_desktop)

We thank the EAMBES Policy Affairs Working Group (PAWG) for the extraordinary work they have done since 2016, when the EPIG was settled, and encourage more EAMBES members to get involved in those activities, especially early-career colleagues.

## Parliamentary Questions

EAMBES has developed targeted Parliamentary Questions on enhancing gender equality in the academic field of Science, Technology, Engineering and Math (STEM), ensuring the inclusion of high environmental and economic sustainability standards in the European legislation as well as in enhancing innovation in artificial intelligence and health data exchange.

A summary of the 4 Parliamentary Questions follows:

PQ1. **Medical AI for patients' benefit:** Innovative AI technologies must have a chance to be used in medical care for the benefit of patients.

- What are the EU Commission's plans to ensure that innovative medical technologies, such as medical AI, are not prevented from reaching patients and care by ever-increasing or duplicative requirements, such as the AI Act, in addition to the MDR?
- On top of current and ongoing initiatives, what steps is the EU Commission taking in the medium-to-long-term to ensure that innovative medical technologies, such as medical AI, are researched, developed, validated, and marketed in Europe to a greater extent than in the past, in order to compete globally in regulatory policy and innovation?
- What steps are envisaged by the EU Commission to allow continuously learning medical AI systems to be placed on the market as medical devices under the MDR?

PQ2. **European Health Data Space:** The need to ensure access to data for researchers in the European Health Data Space (Tabled on 31.02.2024, available here: [https://www.europarl.europa.eu/doceo/document/E-9-2024-000309\\_EN.html](https://www.europarl.europa.eu/doceo/document/E-9-2024-000309_EN.html))

- What is the status and progress of establishing a framework for data sharing and interoperability among EU member states, with the aim of enabling state-of-the-art

biomedical research aimed towards improving patient outcomes and advancing medical research?

- Outside of the scope of the current proposal, what steps is the European Commission taking to address potential barriers to the implementation of the EHDS, including differences in data protection regulations, notably the GDPR, between Member States and ensure that it is fully integrated into the EU's broader research and innovation strategy, while fostering increased collaboration between stakeholders while maintaining the highest standards of protection for the privacy and security of personal health data?

**PQ3. Environmental and economic sustainability standards:** The need to include environmental and economic sustainability standards in the European legislation The need for upgraded standards in STEM field.

- Is the European Commission planning to incorporate environmental and sustainability considerations into its future calls for action on health and in what capacity?
- How is the European Commission working to ensure that life-cycle assessments are conducted for healthcare products and services, considering the availability of innovative medical products and securing the continuation of existing ones in order to be used in decision-making in future healthcare policies and regulations?
- How is the European Commission collaborating with Member States to promote the use of health technology assessments and health technology management in healthcare decision-making, and what steps is it taking to ensure that these assessments incorporate environmental and sustainability considerations to ensure the best diagnostics and care technology for the health of the citizens?

**PQ4. Ensuring higher standards in STEM:** The need for upgraded standards in STEM field (Tabled on 19.03.2024, [https://www.europarl.europa.eu/doceo/document/E-9-2024-000838\\_EN.html](https://www.europarl.europa.eu/doceo/document/E-9-2024-000838_EN.html)).

- What measures are being taken to ensure greater gender parity in postgraduate levels in STEM fields, notably related to health technology research?
- Considering that research and innovation in health technology has longer than average turnover times due to multidisciplinary and involvement of patients and biomedical data, how is the Commission working to ensure equal access to opportunities and to encourage and support women in STEM careers promoting a more diverse and inclusive scientific community?
- Does the European Commission plan to introduce any type of gender criteria, in its future calls for action and legislative proposals?

Parliamentary Questions #1 and #3 are currently circulated to numerous MEPs which are aligning on the practicalities of tabling them in due time for a response from the European Commission. We renew our thanks and congratulations to MEPs [Radka Maxova](#), [Stelios Kypouropoulos](#) and [Eleni Stavrou](#), for tabling PQ4, and [Loucas Furlas](#) (PPE), [Stelios Kypouropoulos](#) (PPE) for tabling PQ2.

We thank the EAMBES PAWG and EPIG secretariat for the extraordinary work they have done in the past years and encourage more EAMBES members to get involved in those activities, especially early-career colleagues.

## Contributions to European Health Data Space

EAMBES held a bilateral meeting with MEP Peter Bojkov Vitanov (Socialists and Democrats, Bulgaria), a member of the ENVI committee to express its considerations on the European Health Data Space proposal in regard to the need to relate EHDS with the GDPR, to align on certain aspects of data use, as well as the creation of common definitions, to include scientific societies in the implementation and monitoring processes and to ultimately ensure and facilitate the access of scientific institutions to health data.

After the meeting the EAMBES also reached out to several other MEPs, succeeding in including three important amendments in the proposed 1861 draft amendments of the proposal.

The **final text on European Health Data Space** is now published and is available from [st07553-en24.pdf \(europa.eu\)](https://www.europa.eu/media/press/infocentre/attachments/data/2023/20230724_en24.pdf).

## Capacity Enhancing Innovation (CEI) in the Health Sector

In July 2023, EAMBES was invited to participate in a public debate on “Capacity-enhancing innovation: strengthening Europe's healthcare systems and workforce” organized in Brussels by the independent think-tank Friends of Europe in collaboration with Edwards Lifesciences. Highlights and recording are available online from <https://www.friendsofeurope.org/events/capacity-enhancing-innovation-strengthening-europes-healthcare-systems-and-workforce/#about>



After this successful event (which can be reviewed online), EAMBES joined an Informal Working Group on Capacity Enhancing Innovation in the Health Sector. Other participants in the group include The European Patient Safety Foundation (EUPSF), the European Health Management Association (EHMA), the European Union of Private Hospitals (UEPH), The European Specialist Nurses Organization (ESNO), Philips, MedTech Europe AI Working Group, Edwards Lifesciences, and RPP Group as coordinators.





## EU Projects

### PandeVITA

|             |  |
|-------------|--|
| Title       | Pandemic Virus Trace Application for the Effective Knowledge Transfer Between Science and Society Inside the Quadruple Helix Collaboration |
| Programme   | Horizon 2020 Science with and for Society  |
| Duration    | 2021-2023  |
| EAMBES role | Consortium partner   |
| Status      | Successfully concluded in August 2023  |



**Summary** The concept of PandeVITA enables knowledge transfer between society and science inside of the quadruple helix on the European level. PandeVITA analyzed communication processes, socio-economic impacts and cost-effectiveness, and legal sanctions during COVID-19 crisis in different countries with the help of different case studies. The project developed a platform to encourage people to support scientific communities with gathered data about mobility, communication behavior, information needs and basic health information for the evaluation of mobility and communication patterns during 'normal' life and during pandemic crisis situations.

### EMBEic

|             |   |
|-------------|---|
| Title       | EMBEic EMBE Innovation Consortium   |
| Programme   | European Innovation Council Ecosystems Partnerships and Co-Investment Support Programme |
| Duration    | 2023-2027   |
| EAMBES role | Consortium partner  |
| Status      | Ongoing   |



**Summary** The EMBE Innovation Consortium (EMBEic) is based on Medtech4Health. Medtech4Health (MT4H) ([www.medtech4health.se](http://www.medtech4health.se)) is a Swedish national strategic innovation program (SIP) financed since 2016 by the Swedish government through Vinnova ([www.vinnova.se](http://www.vinnova.se)). Internationalization is central for sustainable success of biomedical innovation projects. MT4H has in Sweden successfully financed and guided more than 100 BME projects and companies on the path to business establishment on the healthcare market. The aim is to use the Swedish experiences and expand the methodology and developed unique activities for the health care sector, to guide and help European innovators and ventures to accelerate the process of internationalization. In the first step, a matchmaking service engine will be built by MT4H. One target group for expertise matchmaking is EAMBES Fellows, who may have good access e.g. to specific laboratories.

## CryoStore

|             |  |
|-------------|--|
| Title       | Innovation in Germplasm Cryopreservation for Improved Animal Breeding and the Conservation of Europe's Livestock Biodiversity  |
| Programme   | Marie Skłodowska-Curie Actions, under grant agreement No 101120454   |
| Duration    | 2023-2027  |
| EAMBES role | Associated partner   |
| Status      | Ongoing  |
| Summary     | CryoStore Doctoral Network aims to provide high-level training in the fields of cryobiology, reproduction/animal breeding and animal conservation to a new generation of high achieving early-stage researchers to provide them with the scientific and transferable skills necessary for thriving careers. Innovative advancements in cryopreservation procedures will increase the efficiency of assisted reproductive technologies used in Europe's important livestock and aquaculture industries, helping Europe to remain competitive in the global market. The CryoStore consortium consists of 8 full partners (Beneficiaries) together with 14 Associated Partners. |



## EU Proposals

EAMBES has been invited as a full consortium member in the following Horizon proposals, currently under evaluation:

### SmartDRx

|             |  |
|-------------|--|
| Title       | Excellence Hubs for Next Generation Drug Release Systems |
| Programme   | HORIZON-WIDERA-2023-ACCESS-07-01                         |
| EAMBES role | Full consortium partner                                  |
| Status      | Under evaluation   |



### NEARNESS

|             |   |
|-------------|---|
| Title       | Advancing Medtech Biodegradable Polymers for supporting Tandem Multisectoral Sustainable Applications |
| Programme   | HORIZON-CL4-2024-RESILIENCE-01-35   |
| EAMBES role | Full consortium partner   |
| Status      | Under evaluation  |



### 3D-OsteoChondralReg

|             |                           |
|-------------|---------------------------|
| Title       | 3D-OsteoChondralReg       |
| Programme   | HORIZON-HLTH-2024-TOOL-11 |
| EAMBES role | Full consortium partner   |
| Status      | Under preparation         |

### ELEVATE-MD

|             |                          |
|-------------|--------------------------|
| Title       | ELEVATE-MD               |
| Programme   | HORIZON-HLTH-2024-IND-06 |
| EAMBES role | Full consortium partner  |
| Status      | Under preparation        |

### Scientific Publications

Publications emerged from the PandeVITA project, including authors with EAMBES affiliation:

1. Gyftopoulos S, Drosatos G, Fico G, Pecchia L, Kaldoudi E, **Analysis of Pharmaceutical Companies' Social Media Activity during the COVID-19 Pandemic and Its Impact on the Public**, Behavioral Sciences 14 (2), 128, 9 Feb 2024. <https://doi.org/10.3390/bs14020128>
2. Pesche L, Gyftopoulos S, Kapusuzoglu A, Folkvord F, Gumus Agca Y, Kaldoudi E, Drosatos G, Ceylan NB, Pecchia L, Gunes Peschke S. **Practices of knowledge exchange in the context of the COVID-19 pandemic**, Journal of the Knowledge Economy, Journal of the Knowledge Economy, 2023. <https://doi.org/10.1007/s13132-023-01537-w>
3. Gyftopoulos S, Drosatos G, Pecchia L, Fico G, Kaldoudi E, **Interaction Between Pharmaceutical Companies and the Public During the COVID-19 Pandemic – A Twitter Analysis**, In proceedings of MEDICON'23 and CMBEBIH'23, pages 826–834, IFMBE Vol. 93, Springer, Sarajevo, Bosnia and Herzegovina, 14-16 September 2023. [https://doi.org/10.1007/978-3-031-49062-0\\_86](https://doi.org/10.1007/978-3-031-49062-0_86)
4. Montejo AMG, Gaeta E, Karinsalo A, Ollikainen V, Koskela P, Peschke L, Folkvord F, Lupiañez-Villanueva F, Kaldoudi E, Jämsä T, Pecchia L, Fico G, **Human Computer Interaction Challenges in Designing Pandemic Trace Application for the Effective Knowledge Transfer Between Science and Society Inside the Quadruple Helix Collaboration**, In: Kurosu, M. (eds) Human-Computer Interaction. Interaction Techniques and Novel Applications. HCII 2021. Lecture Notes in Computer Science, vol 12763. Springer, Cham. [https://doi.org/10.1007/978-3-030-78465-2\\_29](https://doi.org/10.1007/978-3-030-78465-2_29)

## Fellows

The current Fellows committee consists of Prof. Panicos Kyriakou (Chair), Prof Jari Hyttinen, Prof Karin Wardell, Prof Olof Lindahl, and Prof Marios Pattichis.

EAMBES Fellows elected the Class of 2023 of 9 new Fellows who were presented in March 2023:

- Constantin Coussios, Univ Oxford, UK
- Anders Eklund, Univ Umea, SE
- Einar Heiberg, Univ Lund, SE
- Hanna Isaksson, Univ Lund, SE
- Ilkka Korhonen, US and Tampere Univ, FI
- Ilias Maglogiannis, Univ Piraeus, GR
- Marko Munih, Univ Ljubljana, SL
- Leandro Pecchia, Univ Roma, IT
- Jess Snedeker, ETH Zurich, CH

and the Class of 2024 of 7 new Fellows who will be presented in the Fellows Seminar in April 2024:

- Andreas Demosthenous, University College London, UK
- Bart Vanrumste, KU Leuven, BE
- Christakis Damianou, Cyprus University of Technology, CY
- Christian Vergara, Politecnico di Milano, IT
- Eugenio Guglielmelli, Università Campus Bio-Medico di Roma, IT
- George Matsopoulos, National Technical University of Athens, GR
- Luca Faes, L'Università degli Studi di Palermo, IT

## Members

EAMBES currently amounts to a total of 66 members. In 2023, EAMBES welcomed 2 new members:

- Bioengineering and Sustainability Research Group, Lusofona University, Lisbon, Portugal
- MEDEA SLR, Massa, Italy

## Conferences

IFMBE/EAMBES conferences in 2023-2024:

- NBC2023 in Liepaja, Latvia, 12-14 June 2023. <https://nbc2023.lmifb.lv/>
- MEDICON2023 Sarajevo, Bosnia-Herzegovina, 14-16 September 2023. <https://www.medicon2023.com/>
- EMBEC2024, in Ljubljana, Slovenia, 9-13 June 2024. <https://www.embec2024.org/>

## Collaborations

EAMBES is an active member of **Health First Europe (HFE)**. HFE is a non-profit, non-commercial alliance of patients, healthcare workers, academics, healthcare experts and the medical technology industry. HFE is joining forces to transform health care through innovative solutions. <http://healthfirsteurope.eu/>.

## Webinars

The first of a series of EAMBES webinars was held on 2 November 2023 discussing the topic of Gender equality and STEM Careers in Biomedical Fields.



More seminars under way focus on the following topics:

- BME for sustainability by Leandro Pecchia
- Living labs, by Giuseppe Fico
- Regulatory affairs, by Cord Schloeterburg

## Events Sponsored by EAMBES

- Nordic Conference on Digital Health and Wireless Solutions, University of Oulu, Finland, 7-8 May 2024.
- Change the Bias in Biomedical Engineering Ed. 2024, Torino, 11-12 April 2024
- BIOSTEC 2024: 17<sup>th</sup> International Joint Conference on Biomedical Engineering Systems and Technologies, Rome, Italy, 21-23 February 2024
- 10th Panhellenic Conference on Biomedical Technology, Thessaloniki, Greece, 6-8 October 2023
- ICNBME 2023, 6<sup>th</sup> International Conference on Nanotechnologies and Biomedical Engineering, Chisinau, Moldova, 20-23 September 2023
- Lectures at Kalifa University, Abu Dhabi, United Arab Emirates organized by L Pecchia & G Fico
- MEDEA Academy 2023, a specific Summer School organized each year by MEDEA, Florence, Italy, 26-29 June 2023.

EAMBES **President and Secretary General presented EAMBES** activities in the following events:

- MSc BME-AUTH Ecosystem Enhancement and Internationalisation Day, Aristotle University of Thessaloniki, Greece, 29 November 2023.
- 10th Panhellenic Conference on Biomedical Technology, Thessaloniki, Greece, 6-8 October 2023



## Looking ahead

With key European Elections coming up in June 2024, political parties in the European Parliament are gearing up for the next legislative term. A major focus is expected to be on boosting the EU's ability to act independently. This is likely to involve both improving healthcare capacities and maximizing Europe's digital and innovative potential.

These trends present exciting long-term opportunities for researchers in healthcare and medical innovation. By mapping out a comprehensive, strategic approach over the next five years, we can achieve three key goals. First, we can prioritize support for the bioengineering sector. Second, we can create the right conditions for revisiting and potentially revising existing legislation such as MDR (Medical Devices Regulation) and contributing to upcoming regulations. Furthermore, we can highlight how biomedical engineering strengthens healthcare capacity and enables the development of environmentally friendly and sustainable healthcare services and environments.

As per last year State-Of-Alliance, we would like to call BME community attention and concrete action to do all they can for reducing the environmental impact of healthcare technologies. We have learned over time how to make MedTech safe, effective and cost effective, we are now called to contribute to their sustainability also from the environmental perspective, in alignment with the UN Sustainable Development Goals.

**In today's interconnected world of biomedical engineering, the need for standardized practices, clear regulations, and consistent funding has never been more critical.** These elements act as crucial bridges, transforming breakthrough research into successful innovations that can reach patients worldwide. A coordinated effort across Europe and the international community is essential to address this issue that transcends borders. By establishing standardized practices and clear regulations, we can unlock the full potential of biomedical engineering, leading to faster development and wider access to life-changing innovations for all.

Leandro and I as EAMBES Past President and President, we both would like to thank all the EAMBES proactive Working Groups, Council, Executive Board and Administrators for their tireless contributions, and all the EAMBES members and partners for their unwavering support and trust.

**We look forward to another year of remarkable collaboration in propelling biomedical engineering and science forward, ultimately contributing to improved health and well-being for everyone.**



Eleni Kaldoudi, President



Leandro Pecchia, Past President

# WHAT IS EAMBES?

## European Alliance for Medical and Biological Engineering & Science

**A non-profit scientific society to promote Biomedical Engineering (BME) and Medical and Biological Engineering and Sciences (MBES) in Europe.**

Members are eminent scholars (EAMBES Fellows), National and international scientific societies, hospitals, universities or research institutions across Europe. Today, EAMBES counts 28 national & transnational societies and 37 academic and research institutions, and through them, thousands of biomedical engineers and scientists working in research and higher education or in hospitals (i.e., clinical engineers) in Europe. EAMBES is also affiliated to the International Federation of Medical and Biological Engineering (IFMBE), which is member of the International Union for Physical and Engineering Sciences in Medicine (IUPESM). EU BME societies represent the half of IFMBE members circa, and therefore the half of global BME and MBES community. This is a great honour, but also a great responsibility. Yet, we feel that we can do more to support global health and wellbeing. In fact, IFMBE is an NGO in official relations with the UN WHO, while the IUPESM is a member of the International Council of Science (ICS), which is the UN UNESCO umbrella organization fostering sciences. Many EAMBES members have been serving the UN, as independent consultants, or via IFMBE Divisions and working groups<sup>1</sup>.



## EAMBES VISION

Medical and biological engineering and science are major enablers of modern medicine, which has made its main advancements in the past decades mainly because of the main output of BME.

Our community has direct impact on quality of life, safety and cost-effectiveness of healthcare services, with our effort in research, innovation, assessment, procurement and management of biomedical engineering main products, which are biotechnologies and medical technologies (MedTech) such as medical devices, personal protective equipment and digital health.

<sup>1</sup> Further details on BME and UN collaboration (WHO and ILO), can be found at:

<https://www.sciencedirect.com/science/article/pii/S135045331930164X>