

CESAER

BUILDING RESILIENCE

ANNUAL REPORT 2020

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LETTER FROM THE PRESIDENT

Last year brought challenges and turbulence. Confronted with Covid-19, our Members reacted at an unprecedented pace and our network contributed as a partner in the pan-European [#EUvsVirus initiative](#). Despite these disruptions, we have made great progress together as an association.

We have put the contribution of universities of Science and Technology (S&T) to ecological, economic and social sustainability at the centre of the activities and deliverables of our association and our over 1,000 volunteers and leaders have worked tirelessly to advance the vital roles that research, education and innovation play in the systemic changes needed to achieve the United Nations Sustainable Development Goals ([UN SDG](#)). Enhancing the cooperation between Social Sciences and Humanities (SSH) and Science, Technology, Engineering and Mathematics (STEM) thereby is key and our recent [open letter](#) highlights the challenges and immense opportunities regarding inter- and transdisciplinary research and provides recommendations to improve policies and funding instruments.

The European Research Area ([ERA](#)) provides universities and our partners with a framework to collaborate. As stated earlier in an [op-ed](#) and in an [undelivered speech](#), the ERA should be established (i) as a community of values, (ii) contributing to sustainability and (iii) safeguarding an integrated, effective and enforceable set of conditions and regulations for the free circulation of researchers, scientific knowledge and technology. We welcomed the European Commission's communication on the ERA and [provided recommendations](#) for its further reinforcement.

Key to the success of the ERA is to recognise that the urgent and pressing challenges that loom behind the current pandemic can only be truly tackled through a balance between investigator-driven frontier research and top-down approaches supporting innovation ecosystems. We thus [call](#) for curiosity, creativity, agility and out-of-the-box thinking to be embraced to push the boundaries of our knowledge, allowing us to find insights and solutions in new and unexpected domains.

My recent [op-ed](#) highlights that too many of Europe's two million researchers face precarious conditions and uncertain futures and calls for reform at several levels. Notably, current assessment and reward structures put undue focus on narrow, simple-to-measure indicators and criteria. Our white papers on [early-stage researchers](#) and on [next-generation metrics](#) argue for a culture built around quality, risk-taking and trust, replacing the focus on individual competitiveness with open, collaborative and team-based approaches. To reinforce our commitment, we [signed](#) the [San Francisco Declaration on Research Assessment](#).

The European Education Area ([EEA](#)) has also progressed and we provided input on the related communications from the European Commission. Indeed, the lessons of the enforced shift toward the online provision of education are to be taken on board for more normal times, as they will no doubt constitute an important element in the further shaping of the EEA.

Our association is growing from strength to strength and we look forward to advancing together with the European institutions and our partners.

Rik Van de Walle
President of CESAER
Rector of Ghent University



FOREWORD BY THE SECRETARY GENERAL

2020 marked an extraordinary year for universities of S&T and their students, teachers, researchers, support staff and leaders. Next to the imminent challenges and pressures on research, education and innovation of switching to online modes of working and to safeguard the health of persons in the laboratories, 2020 demonstrated the vital role of S&T in contributing to tackling pandemics such as the global outbreak of Covid-19. Indeed, S&T have been in the spotlight and scientists have flanked leaders of governments in explaining the scientific facts behind the political choices.

The health crisis and unprecedented lockdown of people, institutions and countries across the globe have also demonstrated that times have indeed changed profoundly. But we may not forget about the other major challenges which loom behind the current pandemic: cultural, economic and social recovery and resilience; social exclusion; increasing inequality of the share of wealth; climate change; plastic pollution; biodiversity loss and - arguably - the consequences of ultra-processed food (such as obesity and coronary diseases). Systemic changes and transformations are needed to tackle the societal and global challenges. Importantly, this involves a Kuhnian shift of paradigm enriching the current competitiveness paradigm. At the heart lies a pact between citizens and various players in society, including academia.

That is why our association has put the contribution of our Members to sustainability at the heart of our work from 2020 to 2021 supporting our [Members](#) (i) to learn from each other, (ii) to advocate their contributions and interests and (iii) to inspire key debates. We thus have continued to be an active and constructive partner at the European level and contributed to major milestones, such as the long-term EU budget from 2021 to 2027, the ERA and EEA and the new generation of EU funding programmes. Thereby, we advanced along a global perspective (i) building bridges between cultures and nations, (ii) encouraging cooperation amongst Members, (iii) fostering strategic partnerships, (iv) defending academic freedom and institutional autonomy and (v) safeguarding Equality, Diversity and Inclusion (EDI).

On 1 January 2020, we [welcomed](#) the University of Belgrade - one of Europe's largest academic institutions and one of the most important educational and research institutions in southeast Europe - as a new Member. Together, our Members and association are all emerging from a period of survival in research, education and innovation administration and healthwise regarding the Covid-19 pandemic through being (i) more directed where we have influence, (ii) more agile, (iii) diverse, (iv) sustainable and (v) resilient. The latter is a great engineering property linked to ductility, self-healing and self-learning.

[David Bohmert](#)
Secretary General of CESAER



Our Members educate just over

1.1 million students

of which over 190,000 are international



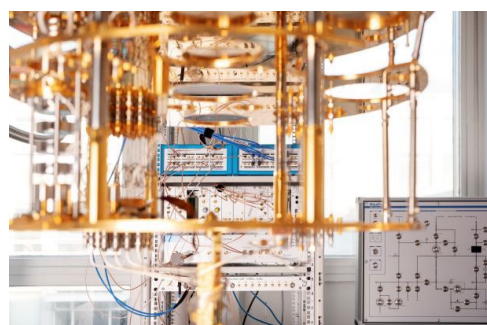
We unite and employ over

95,000 academic staff

In 2020, our Members were awarded

4 billion euros

worth of European research projects



Including

938 ERC Projects

2,044 MSCA Fellowships

7,653 Collaborative Projects

CESAER has

53 Members



During the past year

Over 1,000 staff

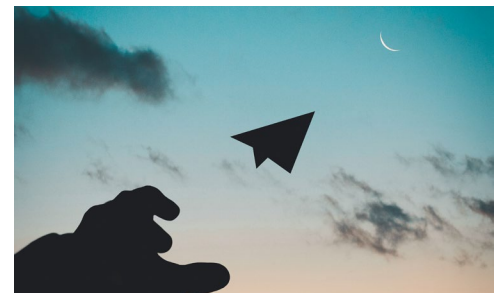
from our Members were involved in
our association

In the last year we published

4 white papers

21 positions and open letters

4 editorials and 5 op-ed articles



Including contributions from

33 (Co-) authors



OUR MEMBERS IN 2020

Aalborg University - DENMARK

Aalto University - FINLAND

Brno University of Technology - CZECHIA

Budapest University of Technology and Economics - HUNGARY

Chalmers University of Technology - SWEDEN

Communauté Université Grenoble Alpes - FRANCE

Czech Technical University in Prague - CZECHIA

Delft University of Technology - NETHERLANDS

Ecole Polytechnique Fédérale de Lausanne - SWITZERLAND

ETH Zurich - SWITZERLAND

Gdańsk University of Technology - POLAND

Ghent University - BELGIUM

Graz University of Technology - AUSTRIA

Institut National des Sciences Appliquées Lyon - FRANCE

Instituto Superior Técnico - PORTUGAL

Istanbul Technical University - TURKEY

Karlsruhe Institute of Technology - GERMANY

Kaunas University of Technology - LITHUANIA

KTH Royal Institute of Technology - SWEDEN

KU Leuven - BELGIUM

Leibniz Universität Hannover - GERMANY

Lund University - SWEDEN

Norwegian University of Science and Technology -

NORWAY

Paris Institute of Technology - FRANCE

Politecnico di Milano - ITALY



Politecnico di Torino - ITALY

Poznan University of Technology - POLAND

Riga Technical University - LATVIA

RWTH Aachen University - GERMANY

Tallinn University of Technology - ESTONIA

Technion - Israel Institute of Technology - ISRAEL

Technische Universität Berlin - GERMANY

Technische Universität Braunschweig - GERMANY

Technische Universität Darmstadt - GERMANY

Technische Universität Dresden - GERMANY

Tomsk Polytechnic University - RUSSIA

TU Wien - AUSTRIA

Universidad Politécnica de Madrid - SPAIN

Universidade NOVA de Lisboa - PORTUGAL

Universitat Politècnica de Catalunya - SPAIN

Universitat Politècnica de València - SPAIN

Université Catholique de Louvain - BELGIUM

Université Paris-Saclay - FRANCE

University College Dublin - IRELAND

University of Belgrade- SERBIA

University of Porto - PORTUGAL

University of Sheffield - UNITED KINGDOM

University of Strathclyde - UNITED KINGDOM

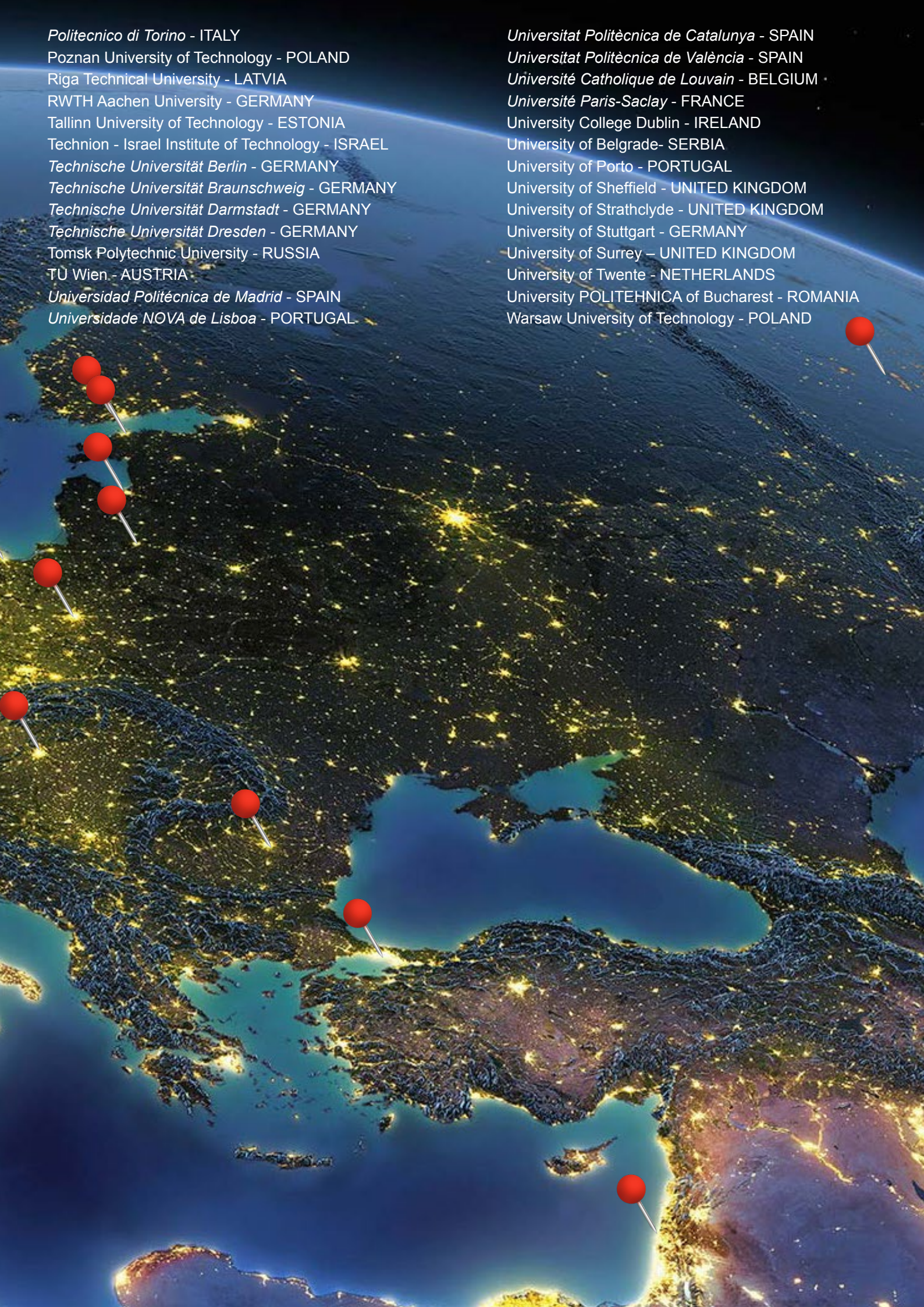
University of Stuttgart - GERMANY

University of Surrey – UNITED KINGDOM

University of Twente - NETHERLANDS

University POLITEHNICA of Bucharest - ROMANIA

Warsaw University of Technology - POLAND



MISSION, ACTIVITIES AND BENEFITS

MISSION

The mission is structured around five aims:

- **Influence key bodies:** aid policy-makers and funders to shape European strategies, policies and funding programmes;
- **Learn from each other:** share information and best practice in areas of higher education, research, innovation and university leadership;
- **Boost participation in European funding programmes;**
- **Promote our strengths globally:** support Members in displaying their excellence and distinctiveness in Europe and beyond;
- **Advance debate on key issues:** promote reflection and understanding of role of science and technology in knowledge societies.

ACTIVITIES

We carry out the following activities connected with our five aims:

- Share experiences, identifying best practice and providing guidance;
- Deploy task forces and workgroups;
- Organise events, such as meetings, workshops and conferences;
- Monitor European policies and programmes and inform Members about them;
- Undertake consultations and surveys amongst Members and represent their collective interests;
- Publish press releases, input statements and white papers;
- Liaise with European institutions and other stakeholders;
- Support Members' communication activities in Europe and beyond;
- Liaise with Members and encouraging embedding of activities within their institutions;
- Improve functioning of association.



BENEFITS

We provide the following benefits to our Members:

- Unrivalled access to and exchange with over 1,000 volunteers and leaders from 53 leading universities of S&T;
- Connections to and influence on over 1,000 policy-makers, politicians and funders at European level and increasingly also at regional and national levels;
- Direct support to take forward collaboration in nine task forces which strengthen our collective position in relation to learning and teaching, research excellence and innovation, leadership, and strategic influence;
- Influential voice on behalf of Members covering 26 countries, which takes account of range of needs and positions;
- Collective representation on key issues such as the European Research and Education Areas and EU funding programmes to senior policy-makers and funders at heart of (European) decision-making;
- Stewardship and professional support by 5 FTE at Secretariat for only €12,000;
- Attractive range and programme of events such as CESAER Annual Meetings and over ten workshops per year;
- Access to intelligence and resources in Extranet exclusively for Members.

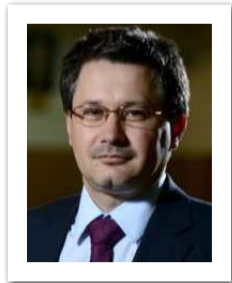
PRESIDENCY 2020-2021

Rik Van de Walle



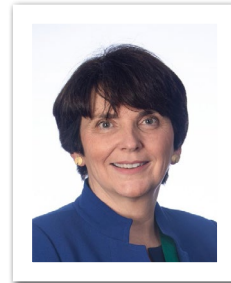
President
(Rector of Ghent University)

Mihnea Costoiu



Vice President
(Rector of University POLITEHNICA
of Bucharest)

Orla Feely



Vice President for Resources & Treasurer
(Vice President for Research, Innovation
and Impact at University College Dublin)

BOARD OF DIRECTORS 2020-2021

Aalborg
University



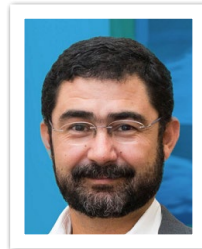
Henrik Pedersen
(Dean of Faculty of IT &
Design)

Delft University of
Technology



Karel Luyben
(Rector Magnificus Emeritus)

Instituto Superior
Técnico



Rogério Colaço
(President)

Karlsruhe Institute of
Technology



Thomas Hirth
(Vice President for Innovation
& International Affairs)

KTH Royal Institute of
Technology



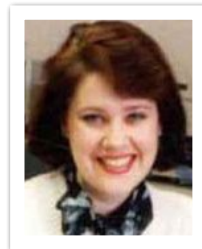
Mikael Östling
(Deputy President)

Technion - Israel Institute
of Technology



Wayne Kaplan
(Professor)

Tomsk Polytechnic
University



Olga Mazurina
(Rector's Delegate for
International Affairs)

Université
Paris-Saclay



Marc Zolver
(Vice President for International
Affairs CentraleSupélec)

Politecnico di Torino



Roberto Zanino
(Rector's Delegate for
European Relations)

University of Strathclyde



Tim Bedford (Associate
Principal Research &
Knowledge Exchange)

AREAS OF WORK

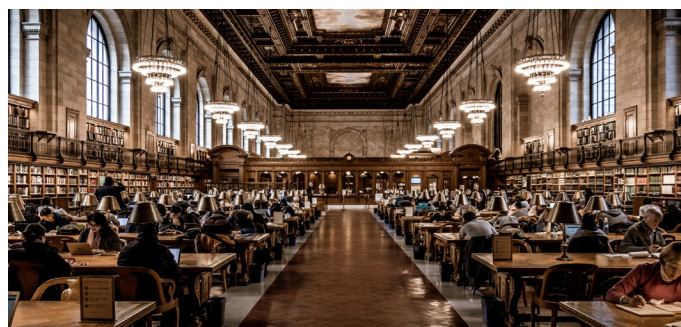
2020 was a year of challenges, as the Covid-19 pandemic impacted our working and personal lives. The continued engagement and dedication of the over 1,000 volunteers and leaders in our bodies and the Secretariat has been invaluable for adapting our activities to the changing circumstances.

On 12 March 2020, the [Board of Directors](#) adopted a biennial Work Plan from 2020 to 2021 wherein we put the contribution of universities of S&T to ecological, economic and social sustainability, and to achieving the United Nations Sustainable Development Goals ([UN SDG](#)) at the heart.

BENCHMARK

The Task Force Benchmark published a [white paper on Next generation metrics](#), summarising a methodological debate amongst experts from our Members on 'traditional' and 'next generation metrics' for science, education and innovation. Moreover, the task force provided [input on Times Higher Education \(THE\) World University Rankings](#), contributing to the discussions at THE on potential changes in rankings methodology and providing recommendations on specific areas. The task force, together with Task Force Open Science and Task Force Human Resources, advanced our association to become a [signatory of the San Francisco Declaration on Research Assessment](#) (DORA).

The [white paper on Next generation metrics](#) fed into the work of the Task Force Human Resources and the Task Force Open Science on the assessment and reward of scientific staff and helped build and strengthen the reputation of our association on boosting the careers of early-stage researchers. The next generation and progressive indicators were discussed with U-Multirank as potential new performance indicators to be added to the benchmarking toolkit. The task force collaborates with International Sustainable Campus Network ([ISCN](#)) on providing input on how to measure the contribution of universities to sustainability. The task force addressed ethical frameworks and key values in its white paper and included them in the progressive metrics.



COMPETITIVE FUNDING

The Task Force Competitive Funding plays the central role in our advocacy towards the European institutions and delivered timely intelligence to our Members and many positions to the greater public, such as [European Universities](#) (October 2019), [Research talent circulation](#) (February 2020), [Sustainable funding for universities](#) (March), [Vision on the European Education Area](#) (April), [Lead for research, education and innovation in recovery and to build resilience](#) (June). It provided input to consultations such as on the European Open Science Cloud ([EOSC](#)) (July), the [future of research and innovation and the European Research Area](#) (July) and the EEA and New Digital Education Action Plan (August). The task force drafted letters on [reducing the impact of Covid-19 on Horizon 2020 projects and COST actions](#) (June) and [mitigating the impact of Covid-19 on Erasmus+ projects](#) (August). The task force contributed to the joint statement [Universities across Europe call on leaders to increase investments in knowledge](#) (July) and joint advocacy related to the EU budget from 2021 to 2027, including a [letter to European Parliament](#) (August), the [Rescue Horizon Europe initiative](#) (November 2020) and an [open letter with UNICA](#) containing recommendations for how to effectively fund inter- and transdisciplinary research (December).

The task force safeguards the recognition and acknowledgement of our association as the constructive and knowledgeable voice of universities of S&T at European level and paves the way for appearances of our volunteers and leaders in European events. All deliverables and interventions from this task force put a strong emphasis on the contribution to tackling global challenges such as pandemics and major others that loom behind this current one, notably climate change and long-term sustainability.

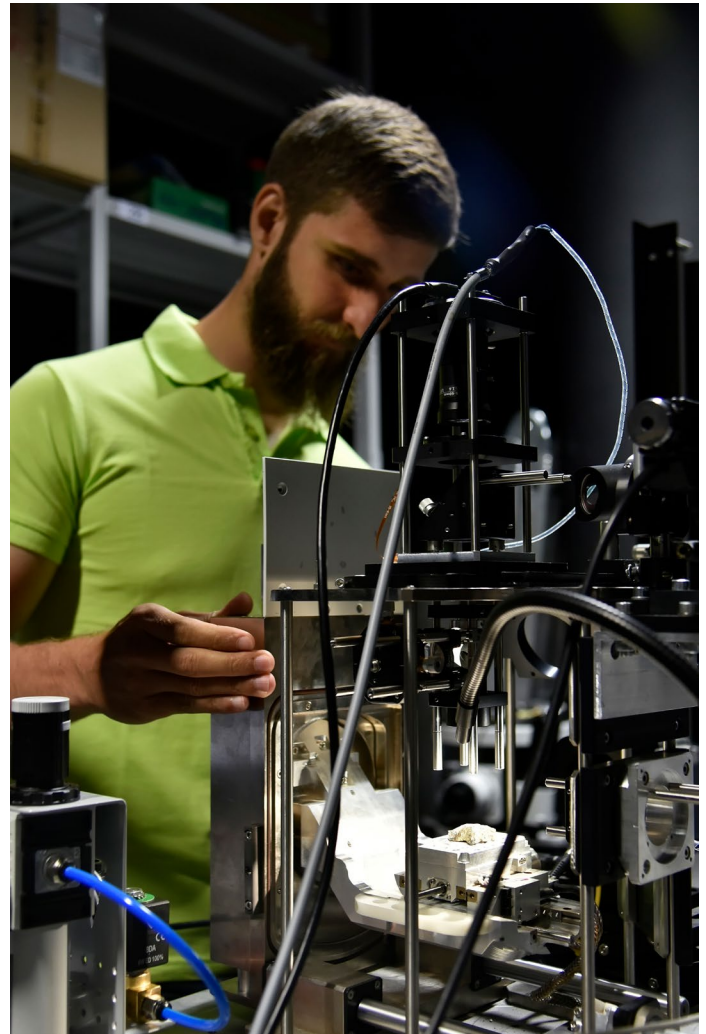
HUMAN RESOURCES

The Task Force Human Resources published a [white paper on boosting the careers of early-stage researchers](#) (February) and organised a workshop on implementing good practices in Equality, Diversity and Inclusion (EDI) (March), a seminar on supporting Gender Equality Plan implementation together with partners of the EU-project [SPEAR](#) (September) and a workshop on the revision of European Charter and Code for Researchers (October 2020). It co-hosted a workshop on Open science in recruitment and promotion of academic staff together with Task Force Open Science.

The task force facilitated our Members to learn from each other and supported them to fulfil the pledges of our [Declaration on Equality Diversity and Inclusion](#). The task force plays the key role in our advocacy on the upcoming revision of the European Charter and Code. The work of the task force is related to several of the UN SDG, notably UN SDG 5 on Gender Equality. For example, the task force helped raise awareness about EDI amongst our Members and promoted a strategic approach through dedicated plans. The task force further contributed to sustainable and cooperative research by presenting new ways to recruit and assess researchers and discussing actions to overcome barriers to and unresolved challenges in open science. It further fostered interconnectedness among Members by promoting [good practices sharing and enabling exchange](#) of knowledge and perspectives through staff mobility.

INFRASTRUCTURES

The Task Force Infrastructures continued its advocacy concerning the role of universities of S&T in infrastructures, including recommendations for (i) developing European research infrastructures; (ii) fostering innovation potential of research infrastructures and their human capital; and (iii) reinforcing European research infrastructure policy and international cooperation to the European Strategy Forum for Research Infrastructures (ESFRI) (May). Special attention was also paid towards facilitating synergies between research infrastructure actions under



Horizon Europe and other European and regional funding programmes.

Infrastructures are vital for the contribution of research, education and innovation to sustainability as they are a driver for scientific excellence as demonstrated in the [white paper Universities of S&T as Engines of Excellence. Talent and Innovation - Roles in Research and Innovation Infrastructures](#) (2019) and as recalled in our association's [input to the consultation the future of research and innovation and the ERA](#). The task force also organised a Leadership Track on the management and operation of on-campus infrastructures.

INNOVATION

The Task Force Innovation worked on three sub-themes, i.e. (i) support innovative start-ups, (ii) support innovation ecosystems and (iii) promote best practices for sharing data when working with non-academic partners in collaboration with the Task Force Open Science. The task force organised a workshop on universities as engines in innovation ecosystems (June) and organised a joint workshop on best practices for sharing data when working with non-academic partners with the Task Force Open Science. The outcome of this joint workshop fed into the joint online event [Openness and Commercialisation: how the two can go together](#) (December).

The engagement of the task force with senior European Commission officials was specifically targeted to pave the way for the engagement of our Members with the European Innovation Council and the related Innovation Ecosystems initiative from the European Commission. This advocacy builds upon the [white paper The role of universities of science and technology in innovation ecosystems](#) (2018). Our association was invited by the European Commission to help shape the [Manifesto for EU COVID-19 Research](#) before its publication supported by the task force. The work of the task force contributes to several of the UN SDG, as innovation underpins advancements in key areas. A few examples include clean water and sanitation, good health and well-being and climate action. Another example is the important role of innovation ecosystems to connect actors inside and outside academia to facilitate efficient and timely knowledge exchange, which fosters innovation (UN SDG 9). Our association was a [partner to the European Commission initiative #EUvsVirus](#).

KEY TECHNOLOGIES

The joint Task Force Key Technologies together with the Royal Academy of Engineering has been working on strategic foresight as it is of increasing importance across Europe, including at the highest levels, as exemplified by the [first annual Strategic Foresight Report](#) published by the European Commission in September 2020. Key technologies, foresight and horizon scanning are important to guide decision-making both inside and outside academia. The work of this task force takes a broad and long-term perspective guided by the UN SDG centred on



how universities can best, in the long-term, position themselves to efficiently contribute to sustainability. The task force forged a strong strategic partnership with the Royal Academy of Engineering in the UK and with the National Academy of Engineering in the US.

LEARNING & TEACHING

The Task Force Learning & Teaching helped our Members prepare successful proposals for the European Universities' alliances. Furthermore, the results of the broad consultation about our Members' participation in the initiative fed into the position on [Evaluation of European University alliances pilot](#) (April) which was co-developed together with the Task Force Competitive Funding. The task force played a key role in our advocacy on European education policies and funding programmes and thus contributed to the shaping of the EEA and brought forward the proposals for its further development from the perspective of universities of S&T. The task force led the development of the position on the [vision for the EEA](#) (April), which inter alia provided our recommendations on how to better enable our students, learners and teachers to contribute to sustainability. The task force provided [input to the public consultation](#) on achieving the EEA by 2025 (September) and contributed to the second [position Towards a dynamic European Education Area driven by excellence](#) (October) as a reaction to proposals put forward in the EC's communication. Another line of work that the task force is engaged in, is focused on challenges and opportunities of digitalisation in S&T education. It submitted an [answer to the consultation](#) on an updated Digital Education Action Plan (September) and published the [position Seize opportunities for digitalisation in education and training](#) (December). The task force forged a strategic partnership with the [T.I.M.E. Association](#).

LINK SSH WITH STEM

The newly established Task Force Link SSH with STEM worked together with the Task Force Competitive Funding and the Network of Universities from the Capitals of Europe ([UNICA](#)) to publish an [open letter](#) to the European Commission and Science Europe. It outlined our recommendations on how to advance funding for inter- and transdisciplinary research under competitive national and European funding instruments in the years ahead. The task force encourages our Members to link SSH with STEM both in research and in education. It contributes to the advocacy for more support for inter- and transdisciplinary collaborations in research, and promotes the integration of transversal skills and ethics into curricula. Throughout its work, the task force explores how linking of the SSH with STEM can help tackle the ecological, social and economic challenges and contribute to sustainability.

The task force collaborated with [UNICA](#) to organise a CAM 2020 [workshop](#) that explored how linking SSH with STEM can help to remove existing gender gaps and bias to boost EDI. It ensures that these issues are addressed in our positions and other inputs.

OPEN SCIENCE

The Task Force Open Science contributed to our position on [Open Access in Horizon Europe](#) and published a white paper on [Advancing research data management](#). It co-organised workshops on 'Trends in academia-industry collaboration based on FAIR data' with the Task Force Innovation and the workshop on 'Open science in recruitment and promotion of academic staff' with the Task Force Human Resources. With the Task Force Innovation and other partners, the Task Force Open Science contributed to an online event [Openness and Commercialisation: how the two can go together](#) (December).



The task force provided inputs to the Strategic Research and Innovation Agenda (SRIA) for the [EOSC](#) and to the [Science Europe](#) consultation on a data management plan evaluation rubric.

The task force was invited to contribute to a [multi-stakeholder webinar](#) on research data management. Following our timely position on open access in Horizon Europe, our association could feed into emerging developments around a [rights retention strategy](#), and provide support and impetus for a cOAlition S initiative to [support collaborative non-commercial publishing models](#). Our association was invited by the European Commission to help shape the [Manifesto for EU COVID-19 Research](#) before its publication, and this work was supported by the task force. As a [founding member](#), our association forged a strong partnership with the [EOSC Association](#), with the Chair of Task Force Open Science Karel Luyben elected the [first President of the EOOSC Association](#) at its first General Assembly in December. The task force promotes [open science as a cornerstone of the UN SDG](#), including by facilitating the full use and re-use of research findings and research data (rapid, wide and open dissemination of research findings to guide the response to Covid-19).

RESOURCES

The annual subscription in 2020 amounted to €12,000. The Annual Account for our fiscal year from 1 October 2019 to 30 September 2020 was:

TYPE COSTS	ACCOUNT 2019-2020 (TO THE NEAREST €1,000)
INTERNAL BODIES	4,000
SECRETARIAT	46,000
EVENTS	12,000
PROJECTS	5,000
ICT	24,000
ADMINISTRATION	11,000
SALARIES	427,000
TOTAL EXPENSES	529,000
TOTAL INCOME	642,000
TO RESERVE	113,000

SECRETARIAT

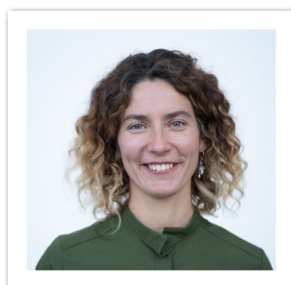
The [Secretariat](#) ensures the execution and implementation of the decisions by the General Assembly, the Board and the Presidency and manages the daily operation of the association. In 2020, the Secretariat had five full-time equivalents.

CONTACT

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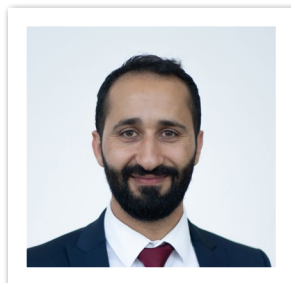
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