

SCIENCE AND
SOCIETY IN

PRESENT-DAY EUROPE

ALLEA | All European Academies

ALLEA Annual Report 2018-2019 25th anniversary edition

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«We aim to make the voice of scientists be heard as an autonomous and trusted source of knowledge for policymakers and society at large.»

Foreword

Science is an intrinsically borderless endeavour. Its future depends on its genuinely global and interdisciplinary understanding. This claim is not new, since for decades researchers and scientists have built international networks, increasingly across disciplinary boundaries. But as the digital turn allows us to connect virtually and no longer just physically, we now have the possibility to push this vision further ahead

Driven by this vision, ALLEA has since its foundation in 1994 consistently spoken out on behalf of its Member Academies and promoted science as a global public good. On the occasion of our quarter of a century jubilee, we decided to use this annual report not only to revisit what has been an exciting year for ALLEA, but also to reflect on our history and to draw inspiration for tackling the challenges ahead of us. In the next pages, we thus look back to prepare ourselves for a better future.

With this purpose in mind, we present to you our strategic priorities for 2019-2024 and assess the work of this year with the chairs of our working groups. To commemorate our anniversary, European partners in the science policy interface and past ALLEA Presidents have joined us to celebrate this jubilee and to share their thoughts and memories about 25 years of academic cooperation in Europe.

In my introductory address as President of ALLEA at the Bulgarian Academy of Sciences, I presented some ideas of my expectations in serving the ALLEA Member Academies and the values our joint enterprise should abide by. In view of the re-emergence of different forms of nationalism and populism, these values are still very much needed in contemporary Europe: humanism, enlightenment and criti-

cal thinking. I believe that academies are in an irreplaceable position to foster those values, to bring science closer to society, to provide an independent voice for shaping the framework conditions of research and to be a trusted broker for providing science advice for policy and society.

In the coming years, we are committed to taking a lead in these fields. Among our priorities, we seek to work together towards tearing down the traditional wall between the natural and social sciences, and the humanities. Addressing the complex global challenges of today requires addressing problems with a holistic understanding. Fostering interdisciplinarity is at the core of ALLEA's activities. Yet, disciplinary silos are not the only aspect in need of change. Just as much as interdisciplinarity, promoting inclusivity and diversity among the research community is vital in achieving progress and we will put this at the top of our agenda in the future.

We aim to make the voice of scientists be heard as an autonomous and trusted source of knowledge for policymakers and society at large. Science can best serve its purpose under a strong institutional framework, and meaningful political and societal recognition. Jointly with our Member Academies, we will build new opportunities to strengthening the role of science in society. We envisage working together with other scientific organisations but also partners beyond academia in Europe and globally.

And in times when digitalisation is blurring the contexts under which scientific information is presented, and po-

tentially undermining the facts and scientific reasoning in public discourse, we, scientists, cannot remain silent. We need to provide new tools and principles of interpretation to the public to enable them to differentiate between what is plausible and what is implausible, and whether scientific findings are trustworthy or not.

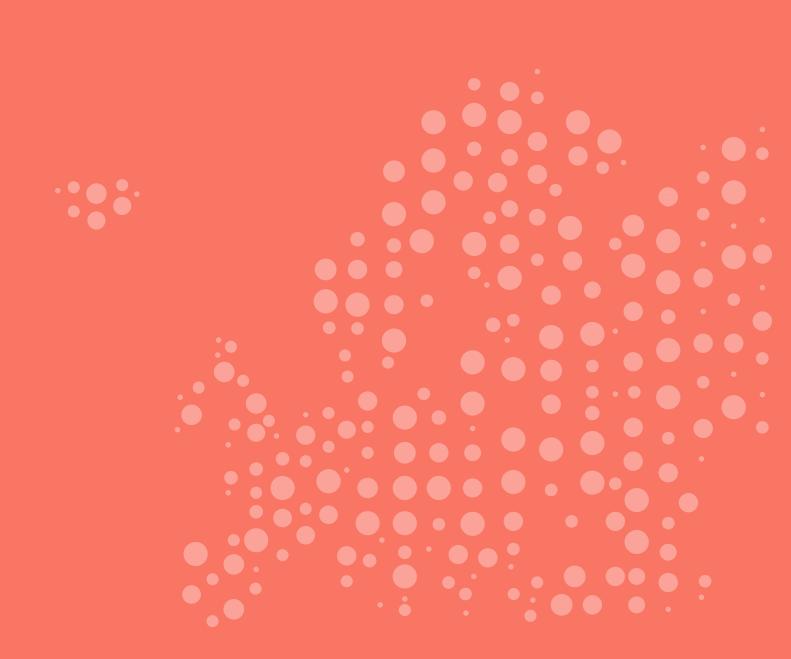
These priorities are the basis for our strategic objectives, which we will further develop and implement in the years to come. You will notice that this document also comes with a fresh look for ALLEA. Our new logo and image seek to further reflect our evolution, identity and vision for the future.

Finally, I would like to thank our Working Groups, the Board and all Member Academies for a year full of engagement and commitment. Being almost a newcomer to the 'ALLEA family', I have felt the determination, dedication and enthusiasm of this community committed to European and scientific values since the very beginning. This wholehearted commitment makes me feel confident in our future ahead. I look forward to working together in the coming years.

Enjoy the read and join us in celebrating the past 25 years, and in moving ahead for the next quarter of a century!

Antonio Loprieno President of ALLEA

Looking Back





«Congratulations to ALLEA on your 25th anniversary.

In a quarter of a century, ALLEA has continuously contributed to the development of European research policy and the European Research Area. In most recent years, you have been a flagbearer for research integrity by developing the European Code of Conduct for Research Integrity, now the standard for European research and a requirement for all Horizon 2020 grants. As a founding member of the Science Advice for Policy by European Academies, you have contributed to the European Commission's Scientific Advice Mechanism and helped us to ensure an evidence-based policy framework for Europe. The past 25 years have been a foundation of great success for ALLEA, I wish you every success for those to come.»

Carlos Moedas,

European Commissioner for Research, Science and Innovation

Looking Back

25 Years of ALLEA

1990-1992

Building ALLEA

In the years prior to the formal establishment of ALLEA, two decisive meetings took place at the Royal Netherlands Academy of Arts and Sciences (KNAW) in 1990 and at the Royal Swedish Academy of Sciences in 1992. In these exchanges, academies from across Europe conceptualised a federation with the goal of fostering cooperation in research between the East and the West of Europe after the end of the Cold War. They agreed on the need for a joint endeavour to address common opportunities emerging from the increasing significance of the European Union in the areas of science and higher education. The first picture shows representatives of 30 European academies of sciences meeting for the first time in Amsterdam at the KNAW on 6 April 1990. The picture was taken at the National Maritime Museum.

1994

22-23 March

ALLEA Officially Founded in Paris

European academies celebrated the official foundation of ALLEA at the Académie des Sciences in Paris on 22-23 March 1994. The federation was established under the idea that the whole is more than the sum of the parts. Paul Germain, secrétaire perpétuel of Académie des Sciences, became the first President of ALLEA. The scientific discussion of the meeting was titled 'Research in Nations of the New Europe'.



First Working Groups Established

The first ALLEA working groups were established under the topics Basic Research in Society, Research Training and Higher Education in Europe, and Intellectual Property Rights.

Domokos Kosary, Second President of ALLEA

The 4th General Assembly took place at the Hungarian Academy of Sciences in 1996. **Domokos Kosary**, President of the hosting academy, became the second president of ALLEA.



1998

Gerhard Gottschalk, Third President of ALLEA (1998-2000)

ALLEA celebrated its fifth General Assembly in Munich at the Bavarian Academy of Sciences and Humanities on 26-27 March 1998. **Gerhard Gottschalk** (Union of German Academies of Sciences and Humanities) assumed the Presidency of ALLEA (1998–2000). The Working Group National Strategies of Research in Smaller European Countries was established.

Formulating a European Consensus for Science

1996-1998

During the first years of ALLEA, an increasing number of advisory activities and actions became visible at the European level and an ALLEA Advisory Group (future ALLEA Board) was created. The goal of the organisation was to articulate a European-wide consensus on national level science policy issues. Among its first publications was the report 'Academic Research Career in Europe' by the Working Group Research Training and Higher Education in Europe.

ALLEA 25TH ANNIVERSARY

SCIENCE AND SOCIETY IN PRESENT-DAY EUROPE



refer brenth (KNAW) was elected ALLEA'S first statutory president for a three-year term during the sixth General Assembly celebrated in Prague at the Czech Academy of Sciences in 2000. ALLEA was also involved in the shaping of the sixth EU Framework Programme for Research and Innovation, and developed a number of international partnerships and memberships. The federation became observing member of the European Science Foundation (ESF) and council member of EA-SAC, which was established by national academies of EU member states for targeted scientific policy advice in selected scientific domains.

2003

ALLEA's Secretariat Established in Amsterdam

With financial subvention from the Dutch Government and substantial support of the Royal Netherlands Academy of Arts and Sciences (KNAW), an ALLEA office was established, located at the Dutch academy in Amsterdam, and staffed by a part-time director and full-time secretary.

2004-2005

Coming of Age: ALLEA's 10th Anniversary

ALLEA celebrated its 10th anniversary in Brussels jointly hosted by the Royal Academy of Science, Letters and Fine Arts of Belgium, and the Royal Flemish Academy of Belgium for Science and the Arts. Ten years after its foundation, ALLEA had become a reference for European science policy advice. Its activities were expanded with new working groups (Cooperation in European Science, Science & Media). Its membership was also broadened to a total of

47 members from 38 countries.

Beyond Europe, ALLEA worked towards raising the voice of academies in international fora such as the World Science and Technology Forum in Kyoto (2004) and the World Science Forum in Budapest (2005). New positions were released on research integrity and the **seventh EU** framework programme for research and innovation, among other topics.



2006-2008

Towards the Consolidation of the European Research Area

In these years, ALLEA created new working groups (Evaluation for Science, Science Education) and worked with Member Academies to produce policy advice for the European Research Area and the establishment of the **European Research Council** in 2007.

ALLEA also became a platform to foster regional cooperation with the Southeast of Europe. With this goal, the conference 'Emerging Regional Cooperation: Southeast European Academies of Sciences and Humanities in the European Research Area' was organised in Amsterdam at the KNAW on 18-19 October 2007.

2008-2009

15th ALLEA Anniversary

The tenth General Assembly was hosted by the Institute of Spain (Madrid, 16-17 April 2008). On this occasion, **Rüdiger Klein** was designated Executive Director of ALLEA. The following year an ALLEA Extraordinary Strategy Meeting was held in Amsterdam to celebrate ALLEA's 15th anniversary and to discuss the future of ALLEA initiatives.





2011 European Code of Conduct for Research Integrity

ALLEA and the European Science Foundation (ESF) released the European Code of Conduct for Research Integrity. A preliminary version was presented at the World Conference on Research Integrity in Singapore the year before.

After a transition of four months with an interim Presidency (**Stefan Luby**, Slovak Academy of Sciences, President; **Marie Flanagan**, Royal Irish Academy, Vice President), European academies agreed on a new strategy and roadmap for ALLEA, presented by **Günter Stock** (Union of German Academies of Sciences and Humanities). He was elected as the sixth President of ALLEA in Rome at the General Assembly hosted by the Accademia Nazionale dei Lincei (11-12 April 2012).





Open Science and Intellectual Europe in Focus

The 14th General Assembly took place in Berlin at the BBAW on 29-30 April 2013 under the theme 'Management of Large Data Corpora'. The new direction of ALLEA towards areas such as the digital agenda and intellectual Europe was further discussed. In these years, meetings with Commissioner for Digital Agenda Neelie Kroes and EU Director-General for Research and Innovation Robert-Jan **Smits** took place. ALLEA presented the initiative 'In search of an intellectual Europe' to the President of the European Commission Iosé Manuel Barroso.

the premises of the Berlin-Brandenburg

(BBAW). Daniela Jezova (Slovak Academy

of Sciences) and Ed Noort (KNAW) were

Director. The ALLEA Working Group E Hu-

Academy of Sciences and Humanities

appointed Vice-Presidents. Matthias

Johannsen was appointed Executive

manities was established.

9 April

Madame de Staël Prize for Cultural Values Established

A new focus on activities surrounding the notion of a cultural and intellectual Europe beyond the political boundaries of the European Union was initiated with the first edition of the ALLEA Madame de Staël Prize, awarded to cultural historian **Luisa Passerini** on 9 April 2014. The prize was handed over to her by European Commission President **José Manuel Barroso** in an award ceremony in Brussels at the Academy Palace.

2015

26 March

Re-Imagining the Scientific Advice System of the European Commission

Major steps towards establishing a new scientific advice system at the European level were taken. ALLEA facilitated and hosted a meeting between Academia Europaea, EASAC, Euro-CASE, FEAM and ALLEA. The European academy networks signed a Memorandum of Understanding, which was handed over to the Director General for Research and Innovation Robert-Ian Smits.



2U 14 24-25 April

ALLEA 20th Anniversary: Enabling Early-Career Researchers

ALLEA celebrated its 20th anniversary in Oslo at the Norwegian Academy of Science and Letters on 24-25 April 2014 under the theme 'Enabling early career researchers – needs for training of a new generation'. ERC President **Jean-Pierre Bourguignon** provided a keynote and congratulatory address on this occasion.

23-24 April

Carlos Moedas Handed Madame de Staël Prize to Dame Helen Wallace

The 2015 Madame de Staël Prize was awarded to political scientist **Dame Helen Wallace** (British Academy). The award was handed by the European Commissioner for Research, Science and Innovation **Carlos Moedas**. On this occassion, Moedas announced the integration of European Academies as a fundamental part of the new Scientific Advice Mechanism (SAM).

The announcement was made during the 2015 ALLEA General Assembly hosted by the Academy of Sciences of Lisbon on 23-24 April. At this meeting, **Günter Stock** was unanimously re-elected for a second term as President of ALLEA. Both Vice-Presidents, **Daniela Jezova** and **Ed Noort**, were re-appointed.

2016



13 December

Launch of SAPEA

ALLEA, jointly with other European academy networks, launched SAPEA (Science Advice for Policy by European Academies). The initiative was designed as an integral part of the European Commission's Scientific Advice Mechanism, alongside the Group of Chief Scientific Advisors (GCSA). Then ALLEA President Günter Stock was elected Chair of the

SAPEA Board (2016-2017).

The European Code of Conduct f Research Integrity

REVISED EDITION

2017

24 March

Revised Edition of the European Code of Conduct for Research Integrity

ALLEA published the revised edition of The European Code of Conduct for Research Integrity, presented to the European Commissioner for Research, Science and Innovation **Carlos Moedas** in Brussels. The revised Code became a reference document in the Horizon 2020 Model Grant Agreement for research integrity. The document has been translated into most of European languages to help its implementation into national research policies.



16 May

Koen Lenaerts Awarded the Madame de Staël Prize

The 2017 ALLEA General Assembly became part of the ALLEA-Academia Europaea joint conference 'Sustainability and Resilience' at the Hungarian Academy of Sciences in Budapest. On this occasion, the President of the Court of Justice of the European Union **Koen Lenaerts** received the 2017 Madame de Staël Prize.

Antonio Loprieno, Seventh President of ALLEA

ALLEA's Member Academies elected **Antonio Loprieno** (Swiss Academies of Arts and Sciences) as the President of ALLEA at the Hungarian Academy of Sciences on 4 September 2017. A new working group on Truth, Trust and Expertise was established, co-chaired by **Baroness O'Neill of Bengarve** (British Academy and Royal Society) and **Ed Noort** (KNAW).



Defending Academic Freedom

ALLEA became outspoken on the topic of academic freedom in response to the various political infringements on academia in Hungary. Through statements, open letters and media interviews, ALLEA sought to raise the voice of European academies on the provision of a stronger protection for the autonomy of scientific institutions.

New ALLEA Board Elected in Sofia; Vice-Presidents Elected in Berlin

Antonio Loprieno assumed the Presidency of ALLEA at the General Assembly in Sofia and a new ALLEA Board was also elected on this occasion. In the first meeting of the new Board in Berlin. **Hubert Bocken** (Flemish Academy of Arts and Sciences), Graham Caie (Royal Society of Edinburgh) and Krista Varantola (Council of Finnish Academies) were elected as Vice-Presidents.

1-2 November

Data Governance Conference with the **Royal Society**

ALLEA and Royal Society jointly held the pan-European conference 'Flourishing in a data-enabled society' in Buckinghamshire (UK) on 1-2 November 2018. The conference explored major opportunities and challenges that come with new uses of data, and discussed the potential tradeoffs that stem from such uses across various sectors of society.



ALLEA and the think-tank Re-Imagine Europa organised an international forum hosted by the Berlin-Brandenburg Academy of Sciences and Humanities opened by past President of France Valéry Giscard d'Estaing and European Commissioner for Digital Economy and Society Mariya Gabriel. In the event, ALLEA presented the work of its Working Group Truth, Trust and Expertise.



2019

8-9 May

25th Anniversary of ALLEA

ALLEA celebrates its 25th anniversary in Bern, hosted by the Swiss Academies of Arts and Sciences, as part of the General Assembly. The event includes the Madame de Staël award ceremony for the 2019 laureate Mariana Mazzucato (University College London) and the scientific symposium 'Science and Society in Present-day Europe'.

25 Years of Academic Cooperation

Past Presidents reflect on ALLEA's evolution, projects and future after a quarter of a century

Since the introduction of a dedicated ALLEA Presidency in 2000, four Presidents have served at the helm of ALLEA. As part of ALLEA's anniversary celebration, its past Presidents were invited to share some of their memories and to highlight where academies can shape European science.



Pieter DrenthALLEA President (2000-2006)
Royal Netherlands Academy of Arts and Sciences

Question: After 25 years of ALLEA, what would be your key comment on the role of the European federation of academies?

Pieter Drenth: Representing the European Academies, ALLEA has earned an acknowledged role in the promotion of science and the development of science policy

«ALLEA will continue to raise the voice of the academies and to exert an influence in the future European science discussion.»

in Europe in the past 25 years. I trust that ALLEA will continue to raise the voice of the Academies and to exert an influence in the future European science discussion. Herewith I gladly offer my cordial congratulations to ALLEA on its 25th anniversary.

Q.: You were already involved in ALLEA in the early stages of its establishment in the 1990's. Could you share some memories with us from those years?

P.D.: ALLEA officially started in 1994 in Paris, but before that there were four years of incubation. In 1990 the Royal Netherlands Academy of Science and Arts (KNAW) hosted a meeting of representatives of the European academies. The objective was to examine how a federation of academies of sciences and humanities could be influential with respect to the gradually extending European science policy legislation and funding. It just so happened that as the Cold War had

ended that spring, several Eastern European academies participated. As President of the KNAW I hosted that meeting and promised to prepare proposals for the organisation and structuring of a more permanent meeting platform. In 1992, in a meeting at the Royal Swedish Academy of Sciences in Stockholm, these proposals were discussed and a group was appointed to work out the details and concept statutes. In 1994 at the General Assembly meeting hosted by the French Académie des Sciences in Paris, the official birth of ALLEA was celebrated.

It was decided to convene a general assembly every two years, and to invite the President of the last hosting academy to serve as President of ALLEA for the next two years. In 2000 this was changed. The responsibilities of the presidency in the phase of establishment, also in view of the increasing importance and influence of 'Brussels', required more time and energy than foreseen. The tasks of the President of ALLFA were not quite compatible with the duties of a sitting President of an academy. It was therefore decided to introduce a separate Presidency with a three year term and a possibility for a one-time reappointment. During the general assembly at the Czech Academy of Sciences in Prague in 2000, I had the honour of being appointed as President, After a reappointment in 2003 I resigned from my position in 2006 during the general assembly at the Polish Academy of Arts and Sciences, Krakow in Poland, looking back at six years of interesting, challenging, sometimes aggravating, but always rewarding service as President.

Q.: Besides the Presidency, in which of ALLEA's activities did you engage most strongly? And which area do you feel is especially important for ALLEA?

P.D.: Since 1994 I chaired ALLEA's Standing Advisory Committee on Science and Ethics. While President I remained member, but yielded the scepter to my successor Gerard Toulouse. Quite a number of conferences





and workshops were organised, and many advisory memoranda, papers, and books on this subject were published. Personally I have always tried to pay special attention to what I considered pressing questions of research integrity. Consequently ALLEA asked me in 2008 to chair the ALLEA/ESF Working Group that had to develop a European Code of Conduct for Research Integrity. In fruitful interaction with members of the Standing Committee on Science and Ethics and, later, with all Member Academies of ALLEA in a meeting in Bern in 2009, the first European Code of Conduct was published in 2011, and accepted by both ESF and ALLEA. I was pleased to see that the present ALLEA Permanent Working Group Science and Ethics prepared and published an updated revised edition of the Code, and even more so to learn that the European Commission requires explicit endorsement of this Code before a research subsidy is granted. I consider that a worthy recognition of ALLEA's position and contribution on this matter.





Jüri EngelbrechtALLEA President (2006-2011)
Estonian Academy of Sciences

Question: When you started your mandate, what were the major challenges of your Presidency for ALLEA but also with a view towards the developments in the scientific world at the time?

Jüri Engelbrecht: In my inaugural speech in Krakow (2006) I used first a parallel from physics – there are conservation laws (basic values of science and scholarship) which should be kept, and constitutive laws (policy, funding, infrastructures, education...) which must be developed. Then I posed a question: how should the potential of academies be better employed? The answer was multifaceted: cooperation of academies and academic networks, enlarging membership, activities in shaping the science policy in Europe, and the like. I think that in Krakow I also declared that ALLEA should always keep in mind a saying by Aristotle "the whole is more than the sum of its parts".

«ALLEA should always keep in mind a saying by Aristotle 'the whole is more than the sum of its parts'.»

From everyday activities in the office the priority was to enhance the flow of information and the formulation of annual action plans. We intensified the ALLEA participation in shaping of European science policy and started to prepare the first ALLEA Strategy document (approved in 2008).

Q.: Besides the Presidency, in which of ALLEA's activities did you engage most strongly? And which area do you feel is especially important for ALLEA?

J.E.: I tried to support cooperation within Europe, especially between the academic networks. The idea was twofold: for society a unified voice of academies was needed and for academies an understanding to use a suitable form of cooperation was needed. I am very glad that now such cooperation is realised by SAPEA. The attention was put on young academies, this was also highlighted by young scientists participating in the ALLEA organised session at the World Economic Forum in Tianjin (2008). They said: "Making a better world needs better science – we young scientists are ready to contribute our share". I was glad to support activities related to values of science and responsibility of scientists - this has been, and constantly is, one of the most important focal points of ALLEA. We helped to formulate principles of science policy in Europe by ALLEA statements which reflect the opinions of academies.

Q.: In which areas do you think that ALLEA and the academies in general can make valuable contributions in the future?

I.E.: I formulated some ideas for the future in our book *The* Sum of the Parts: ALLEA and Academies written together with Nico Mann (2011) as a summary of our activities and these ideas are still valid. For example, basic values of science should be supported and the trust between scientists and society must be improved, as the information-rich society needs wise advice. Next, the actions following the principle of inclusivity are important not only for research collaboration but also for science policy. Nowadays it seems that the role of social sciences is growing in order to manage the human side of progress and possible critical situations. Framework conditions for research must be developed to account for this. In this context, the unique role of academies is to indicate the areas where new knowledge is needed to be generated because academies are the best actors embodying traditions of research and wisdom combined with new ideas. But knowledge is also needed for education, bearing in mind not only scientists and scholars but also policymakers, entrepreneurs as well as journalists. The societal role of academies is to develop an understanding of the complexity of the world in which actions influencing society, economy, and environment are actually coupled. It goes without saying that cultural values of Europe must be shared and honoured.







Günter StockALLEA President (2012-2018)
Union of German Academies
of Sciences and Humanities

Question: When you started your mandate, what were your priorities for ALLEA and your Presidency?

Günter Stock: At the beginning of my mandate I set out to make ALLEA more fit for the 21st century. I derived a great sense of pride from this role and felt that together with the ALLEA Member Academies we could produce relevant work on many pressing issues and I was looking forward to shaping this process. In my mission, I was fortunate to have two Vice-Presidents Ed Noort and Daniela Jezova who shared my attitude. Together we built on existing strengths of ALLEA, but we also wanted to open up new initiatives where we felt academies should meaningfully contribute. We therefore made the annual General Assemblies more interactive to include horizon-scanning presentations by the academies and made a stronger point on the inclusion of SAPEA. Additionally, ALLEA initiated activities on intellectual Europe, the Madame de Staël Prize or ALLEA's work on trust in expertise.

«Traditional policy-advice is often marred by a narrow disciplinary focus. Academies, and SAPEA for that matter, are set up with interdisciplinarity in mind and can therefore provide a more holistic overview about the chances and consequences in any given advice.»

Q.: You were fully involved in the establishment of SAPEA. What do you think academies have to contribute to policymaking?

G.S.: I have always held the opinion that one of the core strengths of academies is their ability to advise not only policymakers but also society as a whole – what we in German call 'Gesellschaftsberatung'. SAPEA is thus the consistent further development of this idea on the European level. Traditional policy advice is often marred by a narrow disciplinary focus. Academies, and SAPEA for that matter, are set up with interdisciplinarity in mind and can therefore provide a more holistic overview about the chances and consequences in any given advice. So far, the work by SAPEA has been welcomed with great enthusiasm by the policymakers in the European Commission. But, true to the idea of 'Gesellschaftsberatung', ALLEA needs to, and does so also via SAPEA, spread its outreach beyond policymakers and engage the public, together with the academies, in discussions on topics where science has a great relevance to policymaking. Our hope is that we get more people to understand what science can contribute to policymaking and to build trust in the processes.

Q.: Besides the Presidency, in which of ALLEA's activities did you engage most strongly? And which area do you feel is especially important for ALLEA?

G.S.: My feeling was always that all of our activities deserve equal and great attention. What I feel should be most important to ALLEA, is really what is most important for the academies within ALLEA, as the Member Academies must be the ones driving and inspiring ALLEA's activities. I would highlight the protection of the freedom of science and the increased cooperation between academies as the two aspects that I strongly engaged with. ALLEA's Member Academies produce great work in all corners of Europe, but without the freedom to choose their own research, all of this is severely hampered. It is therefore that I feel we will need to do our best to protect the academies and to increase harmonisation and cooperation wherever possible. Together we are certainly stronger.





European partners share with us their memories and congratulatory messages

SCIENCE AND SOCIETY IN PRESENT-DAY EUROPE

«Academies are among the most well-established and important organisations that promote progress in science and the humanities. As research and science are facing new challenges – many of which are related to ethical questions – ALLEA has proved to play a crucial role in providing mindful and insightful input to current science policy issues. Within its 25 years of existence, the organisation has gained stature and esteem. All my best congratulations for this anniversary!»

Marc Schiltz, President of Science Europe



«The European world of research and scholarship needs ALLEA's advice, analyses and advocacy more than ever before. In an era in which scientists, scholars and researchers are often not trusted and their knowledge challenged by confusing, ill-intentioned and even wrong opinions and statements, the academies have the courage to speak up. They also critically ask themselves what they can do better and whether the quality of their output fully satisfies the standards owed to society. On the occasion of ALLEA's 25th anniversary, I wish it continued success and commitment to further serving the European knowledge area in these challenging times and at its highest level of excellence.»

Rolf Tarrach, President of the European University Association (EUA)





«Celebrating the 25th anniversary of ALLEA means celebrating 25 years of networking the very best academies of Sciences and Humanities in Europe, of mobilising the most impressive intellectual excellence of our continent and of providing high quality support to science policy making. The European Commission is grateful to ALLEA for 25 years of cooperation in partnership to shape the European Research Area. Recent examples of the successes of this cooperation are the updated European Code of Conduct for Research Integrity and the setting up of the Scientific Advice Mechanism to provide scientific support to policy making. Therefore, my sincere congratulations to ALLEA with its 25th anniversary.»

Robert-Jan Smits, Director-General for Research and Innovation at the European Commission 2010-2018

«The positive developments of ALLEA went both towards the needs of Member Academies and towards the general issues of European science policy. I never forget the pleasure of assisting the Member Academies at the time of solemn occasions such as celebrations of anniversaries in Sarajevo and Skopje, as well as helping the academies at the

times of difficulties. ALLEA played a pivotal role in the inclusion of academies into the European Commission's Scientific Advice Mechanism. I am really glad that I was allowed to contribute to these positive developments. Congratulations!»

Daniela Jezova, ALLFA Vice-President 2012-2018



ALLEA 25TH ANNIVERSARY

SCIENCE AND SOCIETY IN PRESENT-DAY EUROPE

«I take this opportunity to send you my warmest congratulations upon your 25th Anniversary; we at the Global Young Academy (GYA) are celebrating 10 years of existence this year as well, and are in a celebratory mood ourselves. My first contact with ALLEA was at a warm and animated meeting in January this year, where we discovered that both organisations were concerned about many of the same things – trust in science, science advice, women in science, and science education, among others. We have also since discovered that ALLEA was present at our very first General Assembly in 2010. In turn, the GYA has been present at four out of five of ALLEA's last General Assemblies – clearly our paths are interlinked. Given this shared past, I look forward to a more consciously shared future, and send you, again, hearty congratulations!»

> Connie Nshemereirwe, Co-Chair of the Global Young Academy



«On the occasion of its 25th anniversary, I would like to congratulate ALLEA, the European Federation of Academies of Sciences and Humanities, for its outstanding achievements in promoting an environment in which interdisciplinary and inclusive research and science in Europe can flourish. In an increasingly complex and fast-changing world, the cross-disciplinary study of society has become essential in order for Europe to adapt to new challenges. Supported by a dynamic and vigorous intellectual modus operandi, ALLEA has addressed numerous policy issues in science, research and innovation, thereby furthering the understanding of our shared European values. The ALLEA Madame de Staël Prize for Cultural Values, which I had the honour to receive in 2017, is an expression of ALLEA's holistic approach to the study of European culture in its proper context.»

Koen Lenaerts, President of the Court of Justice of the European Union



«Reading through the addresses and papers of former ALLEA Presidents Pieter Drenth (2000-2006). Jüri Engelbrecht (2006-2011) and Günter Stock (2012-2018), I am struck by their devotion to scientia, and their initiative in transgressing boundaries through international cooperation in a continent that changed immensely during a quarter of a century. ALLEA's role has grown throughout these twenty-five years.

and it has become even stronger after a formidable crisis. Trust has been regained and now ALLEA has an important voice in the Science Advice for Policy by European Academies for the European Commission. General Assemblies have taken up the most actual concerns in the relation between science and society and it is a hopeful sign that these scientific symposia are going beyond the original business meetings. It was a privilege to be part of the board for ten years and I sincerely congratulate the presidency, the board and the staff on this jubilee, wishing ALLEA a future with further reflection on European values and continuous success in combining science for policy and policy for science.»

Ed Noort, ALLEA Vice-President 2012-2018







«ALLEA is the voice of all European academies of science

and the humanities. It embodies the rich enlightenment tradition of bringing together facts and values, empirical evidence and democratic discourse. As such, ALLEA is an ideal contributor to today's policy debates because we very much need both: We must not abandon our actions' anchor in reality. The current challenge of online disinformation is a stark reminder of the risks our society is facing today. At the same time, empirical and theoretical evidence is an important input for any policy decision, but the way in which it feeds into democratic decision-making always depends on our will to safeguard our values. I congratulate ALLEA warmly for its 25th anniversary and wish all of us many more years of fruitful interaction.»

Mariya Gabriel, European Commissioner for Digital Economy and Society

Looking Ahead







ALLEA | All European Academies

The European Federation of Academies of Sciences and Humanities

ALLEA is the European Federation of Academies of Sciences and Humanities.

Since its foundation in 1994 ALLEA speaks out on behalf of its members and seeks to promote science as a global public good. Science is understood as encompassing all forms of knowledge production based on demonstrable and reproducible data, and therefore including all disciplines of scholarly inquiry.

ALLEA is registered under Dutch law as an international membership association with full legal capacity.

Members

As the most comprehensive network of academies in Europe, ALLEA brings together more than 50 academies from over 40 countries in the Council of Europe region, including from almost all EU Member States.

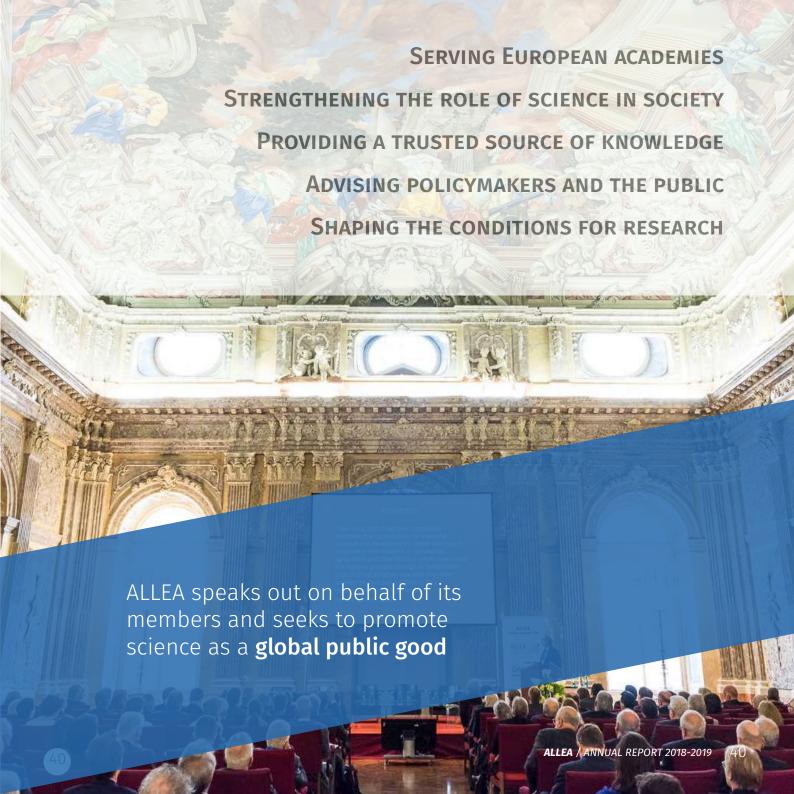
Member Academies are self-governing bodies of distinguished scholars drawn from all fields of natural sciences, social sciences and humanities. They contain a unique human resource of intellectual excellence, experience and multidisciplinary knowledge dedicated to the advancement of science and scholarship in Europe and the world.

Values and Vision

ALLEA's strategic priorities are shaped and driven by its values and vision. ALLEA draws inspiration from the cultural, scientific and humanist tradition of the European Enlightenment, which spearheaded concepts of human dignity, freedom, democracy, equality, rule of law and human rights.

Adhering to these values, ALLEA seeks to contribute to borderless and universal science and its vision transcends national and disciplinary boundaries.

ALLEA is independent from political, religious or commercial interests and strives to promote and protect excellence in scientific research, while simultaneously safeguarding high ethical standards and the academic freedom of everyone involved in the scientific process.





Mission

Serving European Academies and Strengthening the Role of Science in Society

ALLEA develops its activities to serve its members and to represent their interests at the European and global science-policy-society interfaces. It works towards facilitating collaboration and exchange among Member Academies and provides them with a forum to elevate their initiatives from the national to the European and global level

Recognising the institutional diversity of its members, ALLEA works towards ensuring that all academies benefit from membership, from capacity building and from protection of their autonomy where needed. ALLEA members engage in the federation's activities and processes via regular consultations, via the participation of their delegates in working groups, expert committees or the governing board, and via deliberations during the annual general assemblies.



Providing a Trusted Source of Knowledge for Policymakers and the General Public

ALLEA promotes the concept of truly international and interdisciplinary cooperation to present scientifically sound solutions to the challenges and needs our societies are facing, taking into account the equal importance of science, technology, culture and society.

ALLEA involves European academies in the elaboration of science-based policies by providing policymakers and the general public with interdisciplinary scientific expertise and evidence. Specifically, ALLEA engages its members in the European Commission's Scientific Advice Mechanism (SAM) via SAPEA (Science Advice for Policy by European Academies).

Shaping the Framework Conditions for Science and Research in Europe

ALLEA seeks to maintain and improve the framework conditions for science and research in Europe by contributing to science policy at the European level and in other international high level decision-making bodies.

ALLEA's core competences include research ethics and research integrity, the design and implementation of the European Research Area (ERA), the EU's research framework programmes, open science and data, digital research infrastructures, as well as the legal and intellectual property frameworks for enabling excellent science and research in Europe.

ALLEA maintains working groups inter alia in the fields of Research Policy, Science and Ethics, Intellectual Property Rights, E Humanities as well as Science Education. In response to new developments and challenges ALLEA establishes further initiatives where needed.

Strategic Objectives

Serving Academies and Facilitating Cooperation

Provide Member Academies with ways to engage in and benefit from ALLEA's activities, facilitate inter-academy exchange, and harmonise cooperation among European academy networks.

Support Member Academies in their efforts to achieve European and international benchmarks in scientific excellence by providing best practice guidelines.

Engage academies, scientists and scholars actively in the public discourse, particularly on Europe's values, identity and future.

An implementation plan and a communications strategy will outline the actions to put ALLEA's strategic objectives into practice.

2 Improving Framework Conditions for Science and Research

Shape European research policy, especially the ERA and EU research framework programmes, and promote diverse mechanisms for the broad dissemination of and access to research through open science.

Incentivise and promote excellence, multidisciplinarity, mobility, international cooperation and impact to benefit societal wellbeing and enhance economic growth.

Facilitate, honour and promote scholarly work and cooperation on European values, integration and identity.

3 Providing Independent Scientific Advice to Policymakers and Society

Offer pathways for European academies to provide timely, independent, and interdisciplinary scientific advice to policymakers.

Involve academies in the European Commission's Scientific Advice Mechanism through the SAPEA project.

Enable academies to inject ideas into the science policy debates at the European and international levels and develop best practices for academies to engage in public debates and interact with relevant policy and media stakeholders.

Facilitating Good Research Practice

Advise and work with the European institutions and other stakeholders on best practice in research ethics and integrity.

Encourage and ensure high ethical standards in science and research, in research evaluation, as well as in the communication and dissemination of science.

Provide guidance on how to prevent research misconduct and enable researchers to follow best practice, particularly through the European Code of Conduct for Research Integrity.

Defending Academic Freedom and Trustworthy Science

Strive to protect academic freedom and the autonomy of science and research.

Provide assistance and advice to academies in difficult circumstances and speak up publicly for autonomy and self-governance of scientific institutions.

Promote public trust in science and scientific reasoning in public discourse and contribute to the debates in relation to truth, trust and expertise, actively countering misinformation where necessary.

Strengthening Diversity and Inclusivity

Work towards an inclusive, diverse and welcoming scientific environment that allows scientists independent of their backgrounds and identities to achieve the maximum of their abilities.

Establish collaboration with early-career researchers and work with organisations from other sectors on topics of mutual interest.

Promote the diverse cultural, scientific and humanist tradition of Europe in an inclusive manner and strengthen an understanding of Europe as multifaceted, intellectual, open and vibrant.

Thinking and Acting Globally

Promote science as a global and borderless public good, engaging in European and global science diplomacy activities where appropriate.

Represent the academies' interests in Europe and the world by enlarging ALLEA's impact and visibility at the global science-policy-society interface and in the media.

Seek closer cooperation with like-minded international organisations, including from the United Nations system, as well as with regional academy associations and networks.



2018-2019

16-17

MAY

2018 General Assembly at the Bulgarian Academy of Sciences

Representatives from more than 50 European academies and participants from all over Europe joined in Sofia for the scientific simposia 'Science in Times of Challenged Expertise', organised by ALLEA, and 'Shaping European Science Advice: Insights and Experiences', led by SAPEA.





16 MAY

Madame de Staël Prize

European Academies awarded the 2018 Madame de Staël Prize for Cultural Values to Andrea Pető, Professor of Gender Studies at the Central European University in Budapest. European Commissioner for Digital Economy and Society Mariya Gabriel handed over the prize during the award ceremony at the Bulgarian Academy of Sciences.

MAY
Antonio Loprieno, ALLEA President

Professor Antonio Loprieno assumed his mandate as President of ALLEA during the General Assembly in Sofia. During ALLEA's 2019 Business Meeting delegates elected a new ALLEA Board for the period 2018-2020.





24

MAY

An Interdisciplinary Close-up on Health Inequalities

The Royal Netherlands Academy of Arts and Sciences (KNAW), in cooperation with ALLEA and the Federation of the European Academies of Medicine (FEAM), organised a cross-disciplinary workshop. A conference report and a discussion paper were published later that year and form the basis for future activities on the topic.



4

JUNE

Authorisation of Plant Protection Products

The SAPEA report examined the methods and procedures for assessing potential harmful effects on human health from the use of Plant Protection Products (PPPs), and the ways in which the current authorisation processes could be improved from a scientific perspective. It aimed at informing the Scientific Opinion of the the European Commission's Group of Chief Scientific Advisors.

JUNE Group

Horizon Europe Working Group

The ALLEA Working Group Horizon Europe met in Stockholm on the invitation of the Royal Swedish Academy of Letters, History and Antiquities to agree on future actions concerning the European Commission's proposal for the next framework programme for research and innovation.



2018-2019

15 IUNE

Translations of the Code of Conduct for Research Integrity

Translations were made available in Albanian, Bulgarian, German, Greek, Estonian, Lithuanian, Swedish and Turkish. Later in the year, versions in further languages were published, including Italian, Portuguese, Slovak and Slovenian.



22 IUNE

Open Letter in Support of the HAS

ALLEA expressed its support towards its member, the Hungarian Academy of Sciences (HAS), by speaking out against legislative proposals that threaten the scientific autonomy and financial independence of an institution with a long-standing tradition of research excellence. The letter was sent to the responsible Hungarian Minister of Innovation and Technology.



JULY

Letters to Brexit Negotiators

Calling on their responsibility to respect the transnational nature of science, ALLEA sent letters to UK Prime Minister Theresa May and the EU's Chief Negotiator Michel Barnier.

Amendments to Horizon Europe Proposal

Informed by the deliberations of its Working Group Horizon Europe, ALLEA submitted amendments to the European Commission's proposal for the next framework programme for research and innovation.





21

Statement on Political Infringement on Academic Curricula in Hungary

Alarmed by the Hungarian government's recurring and unfounded intervention in the curricula of private and public universities, ALLEA published a statement pointing to severe infringements on academic freedom and autonomy.



6 SEPTEMBER

ALLEA Vice-Presidents Appointed

The newly comprised Board of ALLEA elected three Vice Presidents at its meeting in Berlin. Hubert Bocken (Royal Flemish Academy of Belgium for Science and the Arts), Graham Caie (Royal Society of Edinburgh) and Krista Varantola (Council of Finnish Academies) assumed their offices for the term 2018-2020.

31 AUGUST

Workshop 'Trust in Science & Changing Landscapes of Communication'

Organised by the ALLEA Working Group Truth, Trust and Expertise and hosted by the Royal Netherlands Academy of Arts and Sciences (KNAW), the workshop shed light on the ways in which public trust in scientific institutions, evidence and advice is being challenged by new social and technological transformations changing the landscape of communication.



2018-2019

19

SEPTEMBER

Towards Sustainable and Fair Open Access Publishing

Hosted by the Royal Irish Academy, the ALLEA Permanent Working Group Science and Ethics met in Dublin to discuss contributions to the important and ongoing debates around open access publishing in Europe following the publication of Plan S among other pertinent issues concerning research ethics and integrity.



OCTOBER

ALLEA Hosted Microplastics Workshop

In an interdisciplinary workshop that ALLEA organised at the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW), invited experts addressed social and behavioral sciences perspectives and policy implications of pollution caused by microplastics. The discussions informed the SAPEA Evidence Review Report launched in January 2019.



1,

European level.

OCTOBERFuture Strategies for Science

Communications in Europe

Co-organised by public engagement platforms in Germany and Sweden, Wissenschaft im Dialog and Vetenskap & Allmänhet, and the European Science Events Association (Eusea), ALLEA joined the conference as partner in an effort to make science part of the public conversation. Researchers, science communicators, industry stakeholders and policymakers discussed key challenges ahead to improve science communications at the





20 OCTOBER Europe on Test in Germany

Inspired by a conference at the British Academy, the Göttingen Academy of Sciences and Humanities hosted a conference within the ALLEA series 'Europe on Test – Narratives of Union and Disunion' titled 'Germany and Europe – Views from Within and Without'. Historians and political scientists discussed the historical, present and future relations of Germany in Europe, focusing especially on the UK and France. ALLEA President Antonio Loprieno welcomed participants to the event.



14

NOVEMBER

Nordic Perspectives on Europe

As part of the ALLEA conference series 'Europe on Test – Narratives of Union and Disunion', the Council of Finnish Academies hosted a conference in order to take a Nordic perspective on questions of identity, nationalism, migration and populism in Europe. Invited speakers from Finland, Denmark, Norway, Sweden and Great Britain exchanged insights at the House of the Estates in Helsinki. ALLEA Vice-President Krista Varantola introduced the event.

1-2

NOVEMBER

ALLEA-Royal Society Conference on Data Use and Governance

The Royal Society hosted a two-day joint conference that analysed data use, management and governance through the prism of human flourishing. European experts from across sectors shared their topic-related expertise in a number of panels and breakout sessions designed to explore how societies can best adapt to data-driven lifestyles. The initiative came about from a horizon-scanning session during the 2017 ALLEA General Assembly in Budapest.



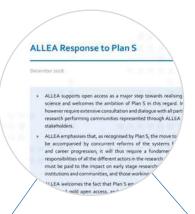
2018-2019

28-29

NOVEMBER

ALLEA at the EU Council Presidency Conference in Vienna

The Austrian Presidency of the Council of the EU addressed the impact of social sciences and humanities for a European research agenda in a dedicated conference that took place in Vienna. Kerstin Sahlin, member of the ALLEA Working Group Horizon Europe presented the paper 'The Importance of SSH Research in Horizon Europe' prepared by the Working Group Chair John Bell of the British Academy.



12

DECEMBER

Response to Plan S

Contributing to promote the discussion on the likely impacts of Plan S and to help shape the future of open access, ALLEA published an initial response to the Plan S and later submitted its feedback to the 'Guidance on the Implementation of Plan S'. The guidance represents a preliminary framework for the adoption and implementation of open access with the final aim of making scientific research and publications more accessible to the broader public.



DECEMBER

Ethical Aspects of Open Access

As part of its work on open access, ALLEA published a report on ethical aspects of open access. The report summarises the outcomes of a workshop initiated by the ALLEA Permanent Working Group Science and Ethics and hosted by the Royal Flemish Academy of Belgium for Science and the Arts in February 2018.





13 DECEMBER

E-Humanities Working Group in Brussels

The group agreed on its next activities, including the preparation of guidelines for humanities researchers in academies and beyond on making their data 'FAIR', and ideally openly available. The initiative includes an open consultation to be launched at ALLEA's 2019 General Assembly in Bern. The aim is to create recommendations that are likely to be adopted, as well as following open science practices.



ALLEA Board at the Polish Academy of Sciences

Members of the ALLEA Board convened in Warsaw for their concluding meeting in 2018 as they discussed major highlights of the year and addressed future activities due to take place in 2019.





10

JANUARY

SAPEA Report on Nano- and Microplastics

SAPEA (Science Advice for Policy by European Academies) published an Evidence Review Report with the aim of informing the forthcoming Scientific Opinion from the European Commission's Group of Chief Scientific Advisors on the issue of microplastics.

2018-2019

21 JANUARY

Trust Within Science

The Working Group Truth, Trust and Expertise published a second discussion paper on trust-enhancing practices within scientific research.

Trust Within Science: Dynamics and Norms of Knowledge Production

January 2019



24 IANUARY

Democracy in a Digital Society

The event 'Democracy in a Digital Society', organised by ALLEA and Re-Imagine Europa, convened international high-profile participants, including France's former President Valery Giscard d'Estaing and European Commissioner for Digital Economy and Society Mariya Gabriel.

23

Trust in Science and Communications

A third discussion paper of the Working Group Truth, Trust and Expertise examines how the increasing use of social media and other digital transformations affect and challenge trust relations between science, media and society.





28-29

IANUARY

Science Education Working Group Meeting in Copenhagen

On the invitation of the Royal Danish Academy of Sciences and Letters, members of the ALLEA Working Group Science Education met in Copenhagen to discuss its future scope and activities. ALLEA Board Member Pawel Rowinski (Polish Academy of Sciences) attended the meeting on behalf of the ALLEA Board.



13

FEBRUARY

SAPEA Microplastics Report Presented to the G7 Chief Science Advisors

Chief Science Advisors from G7 countries and the EU discussed the conclusions of the SAPEA Evidence Review Report at a special meeting in Washington, D.C.. ALLEA has been strongly involved in the production of SAPEA's report 'A Scientific Perspective on Microplastics in Nature and Society' which informs the Scientific Opinion of the European Commission's Group of Chief Scientific Advisors.

FEBRUARY ALLEA-Science Europe Meeting on Plan S

Presidents and senior executives of ALLEA and Science Europe met in Brussels with the EU's Open Access Envoy Robert-Jan Smits in order to explore opportunities for further contributions by ALLEA with respect to the implementation of the Plan S initiative. The meeting also discussed further options for closer cooperation between the two organisations in areas of common interest.



2018-2019

7-8 MARCH

ALLEA Board in Brussels

The Board of ALLEA held its first meeting of 2019 in Brussels on the invitation of the Royal Flemish Academy of Belgium for Science and the Arts. Among other topics, the Board focused on developing a strategy for the coming years and on preparing ALLEA's 25th anniversary celebrations in May.





13 MARCH

Mariana Mazzucato, 2019 Madame de Staël Prize Laureate

Economist Mariana Mazzucato will be awarded the Prize endowed with 20,000 euros during the official award ceremony on 8 May in Bern hosted by the Swiss Academies of Arts and Sciences.



As an international partner, ALLEA contributed to an event in Rome co-organised by the Istituto della Enciclopedia Italiana Treccani and the Accademia Nazionale dei Lincei. Former ALLEA President Günter Stock, Dame Helen Wallace (British Academy), Pere Puigdomènech (Royal Academy of Arts and Sciences of Barcelona) and Michael Rössler (Austrian Academy of Sciences) presented contributions to a prominent audience, including Italian President Sergio Mattarella.





5 APRIL

ALLEA IPR Expert Group Elected New Chair After 20 years of membership, and 10 years of chairmanship, of the ALLEA Permanent Working Group Intellectual Property Rights (formerly IPR Standing Committee), Joseph Straus handed over the group's lead to Alain Strowel. The group has issued and continues to regularly publish expert statements and highly specialised recommendations on IPR-related topics including the EU copyright regulations and patenting system, among others.



8

MAY

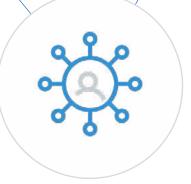
ALLEA 25th Anniversary and Launch of New Strategy

At the 2019 General Assembly, delegates celebrate 25 years of cooperation between academies under the umbrella of ALLEA, and launch a new strategic plan for 2019-2024. A re-designed corporate image of the European federation of academies is introduced.

10 APRIL

Academies, Funders and Universities Publish Statement on Academic Freedom
ALLEA, the European University Association
(EUA) and Science Europe released a joint

statement to call on governments and public authorities to protect academic freedom and safeguard the institutional autonomy of higher education and research institutions, by providing them with clear and consistent regulatory frameworks.





«Academies have played a historical role as high-level actors in the recognition of science and the defence of fundamental values of academic life, as well as in marking the emergence of new political landscapes. In the European context, this has resulted in a diverse configuration of academies covering different domains, established in different cities, regions and countries. It is therefore a significant achievement that near to 60 academies from 40 countries in Europe decided, 25 years ago, to create ALLEA and pursue common activities centred around the core values of an open culture and of academic freedom. Their leaders should be congratulated for this successful effort giving an excellent basis to fight for these values. They are unfortunately still under threat, in spite of the horrors Europe went through in the 20th century, which should have made preserving them a concern of the past.»

Jean-Pierre Bourguignon,

President of the European Research Council

Research Policy





Disrupting the Scientific Publishing System?

Plan S and the Future of Open Access

The open access initiative Plan S has rekindled the debate on the future of open access and pushed the European research community to renew its commitment to a transition towards a fully open science system. ALLEA joined the discussion with the expertise of its working groups and elaborated an initial response to shift the focus of the initiative for the benefit of science and society. The debate is far from close and many ethical, legal and disciplinary considerations are still on the table. We asked ALLEA working groups' chairs about some of the most relevant aspects of the future of open access.

«We need to look at more than sticks and carrots - an analysis of conditions and infrastructures promoting high quality research is essential.»

Göran Hermerén, Chair of the ALLEA Permanent Working Group Science and Ethics

Question: The past year has seen some great strides in the advancement of open access. Your working



group has contributed both to addressing ethical considerations in general as well as those within Plan S. Do you think that we are now on the right path to achieving a good, ethically fair system of open access?

Göran Hermerén: Yes, on the whole. But more work on the implementation of open access remains to be done – including comprehensive dialogue with different stakeholders. This will take some time, but it is important, since the challenges, needs and publication habits vary among various disciplines. Care must be taken that countries and research institutions with less economic resources are not disfavoured. The role of the funding agencies is crucial, since they can impose conditions for their financial support of research projects.

Q.: ALLEA's response to Plan S stressed the need for a corresponding reform of the research evaluation system. Where do you stand on this issue and what do you think is important to consider in any such reform?

G.H.: At our next meeting we will plan an activity focusing precisely on this. In the evaluation of re-

search performance it is important to consider not only commonly used metrics that are thought to drive poor behaviour, such as journal impact factor, citation rates or even just numbers of publications, but take a broader view of approaches and incentives that could be used to promote research integrity and good scientific practice. Some metrics are required but these will need to be supplemented by other considerations such as the quality of the research (idea or output) and its potential to have beneficial societal or economic impacts in the longer term. The San Francisco DORA declaration is an important document in this debate. This also means we need to look at more than sticks and carrots –an analysis of conditions and infrastructures promoting high quality research is essential.

In the answers to both questions it will be important to keep an eye on unintended consequences of well-meaning proposals, and realise that what may work or even work well in one country or discipline might not work (or work well) in others.

«Peer review has to remain the fundamental principle for research evaluation, but the current system is prone to errors, lacks transparency and stops at the moment of publication.»

> Luke Drury, ALLEA Board Member





The Ethical Aspects of Open Access

After around 16 years since the Berlin Declaration on open access to knowledge, one of the most influential statements on open access, the research community must attest that several unintended consequences and ethical conundrums have marred the full-scale implementation of open access in the European Research Area.

To identify some of these issues and to discuss possible solutions, the ALLEA Permanent Working Group Science and Ethics organised the workshop 'Ethical Aspects of Open Access: A Windy Road' on 1 February 2018, hosted by the Royal Flemish Academy of Belgium for Science and the Arts in Brussels. The event was attended by around 80 participants from across Europe.

The workshop report compiles the conclusions ranging from editorial responsibilities in the open access world to ways of identifying questionable and unethical publishers. Further issues include the need to balance transparency with resilience and the effects of open access on the assessments of research performance. Relevant organisations such as the Committee on Publication Ethics, the Directory of Open Access Journals, and EMBO were among the represented organisations.

ALLEA's Response to Plan S

In an initial response published on 12 December 2018, ALLEA welcomed the ambition of cOAlition S to move the scientific publishing system towards open access with Plan S. However, it emphasised that concurrent reforms of the systems for research evaluation and career progression are needed to minimise unintended consequences of Plan S for early career researchers and specialised disciplines. The statement was prepared with the input of ALLEA working groups. ALLEA Board Member Luke Drury, lead author of the statement, addresses some of the challenges ahead for Plan S.

Question: Europe is strongly pushing towards full open access with Plan S, but to succeed this needs to become a global movement. Which measures are needed to promote international acceptance of Plan S?

Luke Drury: Science Europe and coAlition S need to engage with global organisations speaking on behalf of scientists and scholars such as the International Science Council as well as academic group representatives of major regions such as Latin America, Africa, India and China etc. It is important that the scientific unions, and the world-wide academic community, work together with the research funders and policymakers to reform the system of scholarly communication in a manner that is efficient, ethically sound, economically viable and which as far as possible avoids introducing perverse incentives. The universality of science demands no less.

Q.: The transition to open access is dependent not only on fundamental changes in the academic publishing system, but also on reforms of research evaluation processes. The DORA principles need to be widely adopted so that we evaluate the quality of research outputs without reference to where they are published, but to enable this transition we need new methods of assessment which do not use journal impact factor as a proxy for quality. How would you imagine such a system?

L.D.: Peer review has to remain the fundamental principle by which we evaluate research, but the current system is prone to errors, lacks transparency and effectively stops at the moment of publication, which is absurd. The importance of a piece of research is often only appreciated sometime after its publication, and equally defects in research may take some time to be found. So an open and continuous system of review and commentary by the peer community which is not dependent on the publishing platform or journal would bring real advantages. If we could attach easily understood markers of peer esteem to individual research outputs (not just the traditional paper, but also software, experimental protocols. datasets etc) we would have a much better system which would make it easy to adopt DORA principles; it could be something like an academic version of tripadvisor for example. This may actually open up interesting possibilities for the academies to regain some of their traditional role of recognising research excellence.

Open Science and Open Data

Natalie Harrower, Chair of the ALLEA Working Group E Humanities

Question: While Plan S is putting a focus on open access to scientific publications your working group's activities also include the broader context of open science and open data. What principles do you recommend should be followed here and how could they best be implemented?

Natalie Harrower: The movement towards greater openness, transparency, and widespread access to scientific research and the multiple products of that research has been grouped under the broader concept or movement known as 'open science'. In terms of research transparency, integrity, acceleration and the democratisation of access to knowledge, open science as a movement is nothing less than revolutionary, and it should be broadly welcomed and supported at all levels

Alongside the movement towards open access to scientific publications is the movement towards opening access to the research data that enables the findings detailed in these publications. Researchers should now turn their attention to following the FAIR principles (Findable, Accessible, Interoperable, Reproducible) in data management, and seek guidance on how to create a data management plan (DMP) as early as possible in the research process (i.e. when preparing grant



«Researchers should now turn their attention to following the FAIR principles in data managament, and seek guidance on how to create a data management plan as early as possible in the research process.»

applications, or before undertaking a new programme of research). Researchers, and research support staff, should make themselves aware of any national policies on open science/open research/open scholarship, and can turn to funding agencies, research offices, academic libraries, or European sources for specific guidance. Umbrella organisations working to support and enable better research data sharing include the Research Data Alliance, CODATA, and Science Europe.

A Legal Perspective on Open Access

Joseph Straus, Chair of the ALLEA Permanent Working Group Intellectual Property Rights

Question: Open access may generate conflicts with some aspects of the patenting system. One of the recommendations of the ALLEA Permanent Working Group Intellectual Property Rights refers to the need to adopt a grace period in Europe. Why is such a measure necessary and how should Plan S take into account this demand?

Joseph Straus: It may first be recalled that under the European Patent Convention and the patent laws of the EU Member States novelty destroying state of the art is everything which has been made available to the public in any way prior to the filing of the patent application. In other words, also own publications of the inventor him/herself constitute such a prior art.

In a number of countries, such as Australia, Argentina, Brazil, Canada, Japan and the United States, to name but a few, the institute of a so-called grace period exists, which enables the inventor, or his/her successor in title, to apply for a patent within a certain period of time (six or twelve months) from the publication date and enjoy immunity against their own publications.

Although all inventors and their research institutions have to be careful in allowing publication of research results prior to the filing of a patent application, inventors, especially from academic institutions, publish their research results without an adequate control as regards their patentability and potential commercial exploitation, and thus deprive themselves and their

«Since the Plan S puts pressure on early publication of research results, the lack of grace period in the European patent law (s) will obviously aggravate the situation of European scientists/researchers and put them at even greater disadvantage as compared with their colleagues overseas.»

employers, eventually also the tax payers in case of publicly funded institutions, of any property rights in such research results.

ALLEA has since the 1990s repeatedly, but in vain, advocated in favour of an introduction of a grace period in the European Patent Convention and the patent laws of the EU Member States. For that purpose representatives of ALLEA met even the responsible EU Commissioner, and on different occasions also other representatives. It should be emphasised that because of intricacies of patent law, often, even a timely filed patent application does not adequately protect the inventor and his/her research institutions as regards the follow-on research.

In any case, a prudent handling of publication activities results, on the one hand in some delay of publication and still does not offer the necessary legal certainty. Since Plan S evidently puts pressure on early publication of research results and on open access to them, the lack of a grace period in the European patent law(s) will obviously aggravate the situation of European scientists/researchers and put them at an even greater disadvantage as compared with their colleagues overseas.

Horizon Europe

Towards the Next EU Research and Innovation Programme

The European Commission is moving rapidly towards the finalisation of the next EU Framework Programme, which will define the EU's research funding system. What is at stake and how has ALLEA contributed to shaping the programme?

Total sum of the European Commission's budget proposal for Horizon Europe (2021-2027)

€94.1 billion

ALLEA's Contribution to the new Research Framework Programme

The ALLEA Working Group Horizon Europe has provided significant input into developing the EU's proposed framework for research funding within what is now called the 'Horizon Europe' programme. The Working Group was one of the bodies invited to provide amendments to this legislation. The detailed comments focused both on the specific wording of these legislative instruments and the policy orientations which underpin them. The group's main comments on policy were:

- Supporting the ERC and its request for an increased budget.
- Reiterating the value of interdisciplinarity, the humanities and social sciences and their integration throughout the programme as well as the need for a single cluster for these disciplines.
- · Broadening the definition of innovation to involve all forms of knowledge.
- Broadening the understanding of research infrastructures to include research human capital infrastructures.
- · Improving gender balance in research and decision-making.
- Supporting fundamental research and the principle of excellence as the most important criterion for research funding.



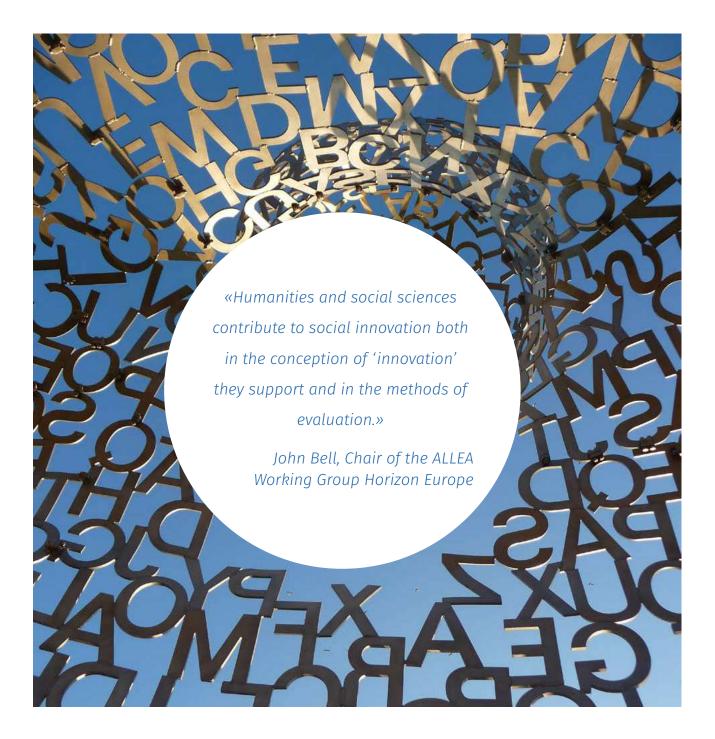


ALLEA presented its views on the impact of SSH at the Austrian EU Council Presidency Conference held in Vienna in November 2018.

ALLEA Working Group Member Kerstin Sahlin presented a paper drafted by Working Group Chair John Bell (British Academy) at the conference 'The Impact of Social Sciences and Humanities for a European Research Agenda' organised by the Austrian Presidency of the Council of the European Union on 28-29 November 2018. The paper will be published as part of the conference proceedings in the 'fteval Journal for Research and Technology Policy Evaluation'.

The paper, titled 'The Importance of SSH Research in Horizon Europe', presents ideas on how Social Sciences and Humanities (SSH) research could be better integrated in Horizon Europe, promotes an understanding of innovation as a factor to transform society and calls for a conceptualisation of impact that is taking wider social, cultural and political developments into account.

The paper does so by warning of «the danger that the emphasis on the contribution of research to economic growth fosters a technocratic paradigm in which the translation of fundamental research into innovative 'products' is seen as the benchmark of success. In the past, the Commission has understood the relationship between research and innovation too much in terms of an overly simplistic, linear process in which research is expected to lead to ever higher Technology Readiness Levels (TRLs). The dominance of this paradigm belittles the contribution of social sciences and humanities».



The challenges ahead call for a profound and inclusive dialogue between all actors in society. That is why the paper argues for more interdisciplinarity and a bigger and well-defined role of the SSH in design and evaluation of the research which is funded through Horizon Europe. «Otherwise the societal challenge to build inclusive, innovative and reflective societies runs the danger of being marginalised by other, more tangible material and technological challenges.»

John Bell, Chair of the Working Group Horizon Europe

Question: How can humanities and social sciences contribute to social innovation?

Iohn Bell: Humanities and social sciences contribute to social innovation both in the conception of 'innovation' they support and in methods of evaluation. The humanities bring the non-material features of our human existence into the understanding of 'innovation'. The quality of life depends not on having new gadgets or new products, but on being able to live a life which has value that may make use of what technology has to offer in a valuable way. Vision, beauty, style and enjoyment are integral to a valuable human life. The social sciences add the dimensions of social relations between people, and between people and their environment. Innovation has to be seen in terms of how those social relationships and environments are affected.

In terms of assessment, humanities and social sciences offer an ability to challenge present ways of approaching social problems by testing out alternatives in rigorous, but non-experi-

mental forms. Philosophy offers the chance to think through hypothetical alternatives, whilst literature makes use of imagination to conceive alternative scenarios and explore them. Historians and archaeologists use the analysis of the past as a form of laboratory of different worlds. Being able to think through 'what if?' scenarios deepens one's understanding of the world.

The social sciences further offer different ways of challenging contemporary norms and traditions of doing things and of assessing effects. Techniques such as modelling enable alternative scenarios to be built and tested in a rigorous way without necessarily having the ability to repeat experiments as in laboratory science. Quantitative and qualitative analyses ensure we see the way technological change affects the way we live together and in relation to our environment.



The ALLEA Working Group Horizon Europe after their meeting in Stockholm at the Royal Swedish Academy of Letters, History and Antiquities on 4 June 2018. Credit: KVHAA



«25 years of ALLEA, 25 years of rapid changes in society and rapid progress in science. Science is all around us, underpinning just about every aspect of modern life. Today, we need science to overcome a range of challenges facing society: challenges ranging from climate change to energy supply, and from antibiotic resistance to feeding a growing population. **Concerted ef**forts are needed, rooted in all levels of society since without a scientifically literate society, without education, there is no acceptance of science and **consequently, no sustainability.** These efforts need the support of politics in the same way as politics needs the support of science for comprehensible and credible decisions. All this can only happen successfully with mutual trust and sustained commitment from all partners: commitment to science, science advice, education and peaceful collaboration as exercised by ALLEA **for 25 years.** Happy birthday ALLEA – We need you!»

Rolf-Dieter Heuer, Chair of the European Commission's Group of Chief Scientific Advisors

Science Advice for Policy





Within the SAPEA Consortium, ALLEA has worked with its Member Academies to provide science advice for policy on the risks of microplastics for health and the environment.

SAPEA

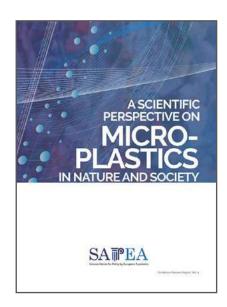
Microplastics and the Role of Science Advice in Engaging the Public Plastics in all its variations and forms are a seemingly indispensable part of modern society, finding important uses in virtually all aspects of our industry and consumer products. Increasingly, however, the problem of plastic pollution has entered the public mind through thought-evoking concepts such as the Pacific Ocean Garbage Patch, and a broad and global movement to combat plastic pollution is growing.

Plastic pollution is a stark visual reminder of the human influence on nature. Even plastics in their smallest forms, known as nano- and microplastics (NMPs), while not visible to the naked eye, have come under increased scrutiny for their potential implications on human health and on the environment.

As small plastic particles can now be found in almost all animals and indeed even in humans, it is high time to examine how widespread NMPs truly are and what we know about their risks for humans and the environment. The European Commission's Group of Chief Scientific Advisors (GCSA) has therefore requested SAPEA to provide an Evidence Review Report on the 'Scientific Perspective on Microplastics in Nature and Society', which informs a Scientific Opinion produced by the GCSA.

No Evidence of Health Risk in Real-world Concentrations Observed yet

The SAPEA report was published in January 2019 and confirmed that NMPs are already present across air, soil and sediment, freshwaters, seas and oceans, plants and animals, and in several components of the human diet. Their origin can be traced to a variety of sources including plastic products, textiles, fisheries, agriculture, industry and general waste.



Controlled experiments with high concentrations of these particles have shown to cause physical harm to both the environment and living creatures. At present these high concentrations are not yet found in real-world locations.

The authors of the report therefore conclude that NMPs do not constitute an acute health risk at the moment. However, if plastic consumption and associated pollution continue to rise, we may reach a critical threshold where NMPs can cause harm in the future.

Changing Human Behaviour

Human behaviour is the sole cause for the presence of plastics in our environment, so an important way to reduce plastics pollution would be to change this behaviour by influencing individuals and social norms through motivations, values and media reports. Evidence and experience indicate that it is important to communicate clearly about the existing uncertainties, rather than assuming there is no risk, especially when it comes to food and human health. Consequently, experts and society must come to a mutual agreement on risk levels and responses.

The report therefore highlights gaps in the existing research into the effects of NMPs on humans and the environment, while also encouraging a thorough assessment of consumer behaviour with a view to curb plastic production and consumption overall.

To gain a better understanding of the social sciences aspects surrounding NMPs, ALLEA organised a dedicated workshop at the Berlin-Brandenburg Academy of Sciences and Humanities which informed the report.

The report has been used as an important document during a recent meeting of the G7 science advisors in Washington D.C. and continues to receive broad interest in the media. Several public events will be organised throughout the year, including a dedicated session at the ALLEA General Assembly's scientific symposium 'Science and Society in Present-day Europe' in Bern on 9 May 2019.



Engaging the Public and Advising Policymakers

European academies and SAPEA work together to engage the public with relevant scientific evidence on societal debates and to make science advice for policy available to policymakers in a timely fashion. In 2018, SAPEA has published evidence reviews on two important topics at the EU level: Carbon Capture and Utilisation (CCU) Technologies, and Authorisation Processes of Plant Protection Products (PPPs).

Carbon Capture Utilisation Technologies

CCU technologies aim to extract carbon dioxide from either concentrated sources or directly from ambient air, and then use it as a raw material for carbon-containing products, such as fuels, chemical products, and building materials. The report concludes that CCU technologies may contribute significantly to mitigating the effects of climate change if used as a component of a comprehensive system to reduce our carbon footprint.

The report was extremely timely and was well received by the European Commission's Directorate General for Climate Action (DG CLIMA). The report's conclusions were taken into consideration in the EU's revised 2030 Energy Roadmap entitled 'A clean planet for all'.

In order to reach out to the scientific community, the report was also presented during a dedicated session as part of the Euro Science Open Forum (ESOF) 2018 in Toulouse, France. In addition, two outreach events were organised in the Euro-CASE member academies of Slovenia (Slovenian Academy of Engineering, IAS) and Romania (ASTR).



Authorisation Processes of Plant Protection Products

The report on authorisation processes of PPPs examines the methods and procedures for assessing potential harmful effects on human health derived from the use of PPPs, and the ways in which the current authorisation processes could be improved from a scientific perspective. Involving a working group of leading European experts on the topic, the report presents 26 options to improve PPP authorisation processes in Europe.

The report informed the Scientific Opinion of the European Commission's Group of Chief Scientific Advisors, which was welcomed and discussed in an editorial of *Nature*. Both the SAPEA report and the Opinion inform the REFIT Evaluation of the EU Regulations (EC) No 1107/2009 and No 396/2005 on plant protection products and pesticides residues, and a Parliamentary

resolution on the Union's authorisation procedures for pesticides (adopted 16 January 2019) and thus contribute to the implementation of a more effective, efficient and transparent authorisation system for plant protection products.



New ways of applying data can make great contributions to human flourishing, but to realise these benefits, societies must navigate significant choices and dilemmas: they must consider who reaps the most benefits from capturing, analysing and acting on different types of data, and who bears the biggest risks. In this fast-moving landscape, governance challenges also need to be addressed in a timely manner if the overall system of governance for data management and data usage is to maintain public trust.

ALLEA and the Royal Society joined forces to discuss the major challenges ahead and how to tackle them from a scientific perspective for the benefit of European society. An international and interdisciplinary conference convened experts from academies across Europe and from different sectors to reflect on the topic on 1-2 November 2018 at Chicheley Hall (UK).

The nature and pace of the digital transformation was discussed, as well as its impact on all layers of European society and policy-making. A data-driven world can hold tremendous opportunities for human flourishing, but ongoing scientific and policy gaps still remain unsolved to fully and fairly achieve this potential.

While it was agreed that Europe should tackle this topic based on a strong human-centered set of values, including those values in a feasible system of data governance remains a big challenge.

Current governance structures, innovation schemes and their adequacy were discussed, with a view towards creating a system that can both respond quickly to this changing landscape and still focus on the benefit for the people. The conference highlighted areas requiring further thought and action, which will be addressed during a follow-up workshop in Berlin on 6 June 2019.



Health Inequalities

Tailoring an Interdisciplinary Europe-wide Response

What drives health inequalities? Despite decades of research into health inequalities there is still no consensus on some of the basic issues. For example, different disciplines hold different views on the nature of the causal relationship between socioeconomic status and health, and on the main mechanisms linking low socioeconomic status to ill health and premature death.

In modern societies, physical and mental health, health-related behaviour, life expectancy and a whole array of other factors are widely regarded as determinants that broaden inequalities. Yet, it is the socioeconomic status that – to a larger extent – may lead to

Different disciplines hold different views on the nature of the causal relationship between socioeconomic status and health, and on the main mechanisms linking low socioeconomic status to ill health and premature death.

an adverse effect and trigger vulnerabilities in different social groups. A joint project of ALLEA, the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Federation of European Academies of Medicine (FEAM) aims at synthesising the evidence-base across disciplines.

Ample evidence suggests that such inequalities are largely caused by social gradients. Depending on how well off an individual is as regards their socioeconomic position, their level of education or physical environment, many scientists agree on the overall causal pathways. Yet, each discipline has its own way



of determining the cornerstones of substantial disparities in health. Despite decades of research and studies designed to uncover the essence of inequalities in health, an interdisciplinary approach remains an integral part of addressing this topic in a coordinated manner in an effort to align the most recent research findings.

New Strategies Needed

What remains clear is that there is a growing need for national public health strategies to keep pace with demographic and climate change while making sure to include marginalised communities that are especially prone to these inequalities. Agile response methods to reduce health inequalities should be implemented that will help end the vicious cycle for some population groups.

As part of its science-policy work, ALLEA is involved in the project of addressing health inequalities together with its partners KNAW and FEAM. This partnership, under the leadership of a cross-disciplinary Scientific Committee, held a symposium in Amsterdam on 24 May 2018. The outcomes of this symposium were incorporated into a report released in November 2018, and aimed at informing the current debate. In a next step, the project will strive to work on an expert consensus that will lay the groundwork for ad-hoc policy recommendations.



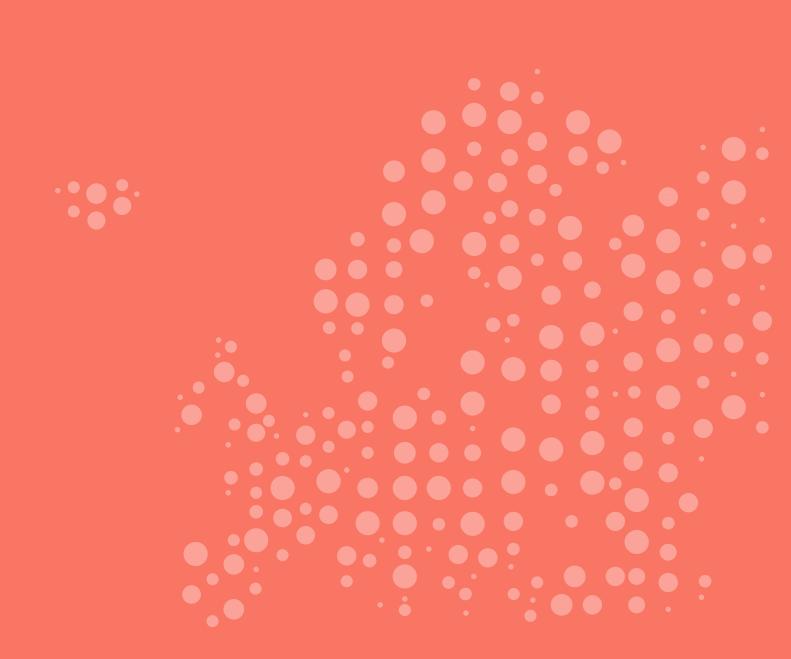




«When one morning in late 2013 I received a call from then ALLEA President Günter Stock, informing me that I had been awarded the Madame de Staël Prize for Cultural Values, I was so surprised that I reacted rather awkwardly: 'But – I said – all my work has been a critique of Eurocentrism!'. He heartily laughed: 'That's all right for us', and explained more about the aims of ALLEA and the Prize. In the following years, I could see how right he was, as I came to know how ALLEA tries to find a balance between an institutional presence in Europe and the conceptual/political needs of our time, paying constant attention to questions of difference/inclusivity and to the connections between knowledge, policy and society. I feel honored to be part of ALLEA.»

Luisa Passerini, first Madame de Staël Prize laureate

Science in Society



Science-Society Relations

Truth, Trust and Expertise

In a society driven by knowledge and high technology, the expertise of those advancing our progress shapes our daily lives in virtually all aspects. Trusting that expertise and, more importantly, trusting the individual experts who have this expertise, is one of the pillars society requires to move forward.

Trusted expert opinion guides fundamental personal choices, such as the food we eat and the products we buy. Scientific information helps us understand our past and present; it pushes the frontiers of our knowledge that fuel job growth, economic prosperity, medical advancements, and enhances social cohesion, cultural activity and the creative arts.

The trust we place (or refuse to place) in experts is therefore important to our personal life choices, for our families and friends, for communities and local associations, as well as for regional, national and international governance mechanisms.

The alleged loss of this trust in times of big social, political and technologi-

ALLEA has established a transnational platform for perspectives on the nature of and relationship between truth, trust and expertise in the field of science and research. cal transformations provides the background which inspired ALLEA to become more actively involved in the debates around truth, trust and expertise. Following an initiative by the **British Academy**, ALLEA has established a transnational platform for perspectives on the nature of and relationship between truth, trust and expertise in the field of science and research. The activity was led by the ALLEA Working Group Truth, Trust and Expertise and aimed at facilitating and coordinating investigation, communication and public engagement.

Composed of eminent scholars from across Europe with diverse disciplinary backgrounds, and chaired by **Baroness O'Neill of Bengarve** (British Academy & Royal Society) and **Ed Noort** (Royal Netherlands Academy of Sciences and Arts), this group conducted three expert workshops and two conferences at ALLEA Member Academies in London, Sofia, Amsterdam and Berlin between February 2018 and January 2019. Each of the three workshops centred its discussion on a different aspect of trust in science and expertise. The major insights from each workshop subsequently informed a series of ALLEA Discussion Papers.

Is there a Loss of Trust in Science?

The first discussion paper 'Loss of Trust? Loss of **Trust- worthiness? Truth and Expertise Today**' reflects on the current situation of expertise particularly in research and science and how it interlinks with trust and trustworthiness. Based on an analysis of changes affecting how trust is given and refused in the modern world, the paper concludes that we are still far away from truly understanding how dynamics of trust work and further reflection is required. It calls for effective mechanisms to evaluate expertise that go beyond standardised procedures of transparency and accountability in order to place our trust more deliberately. **Baroness O'Neill of Bengarve**, lead author of the paper, responds to some questions regarding the challenges ahead for communication and trust in science.



Baroness O'Neill of BengarveCo-Chair of the Working Group Truth,
Trust and Expertise

Question: What are the challenges that technological innovations pose to democracy and political communication?

Onora O'Neill: Ethical and epistemic standards for communication have been discussed since antiquity. And since antiquity cultures of communication have repeatedly been disrupted by technological innovations – think for example of Socrates' worries about the written word, the invention of the letterpress by Gutenberg, or the debates on broadcasting in the 1930s – and then revised and reinforced by cultural and latterly by legal and regulatory measures. However, the transformations produced by the mushrooming growth of digital technologies in the late 20th century, which has coincided with growing globalisation and the declining regulatory capacities of states, may prove particularly challenging. These technologies were initially seen as extending possibilities for

«If we ignore ethical norms such as honesty, sincerity and civility, norms of justice such as free speech, press freedom, and rights to privacy, epistemic norms such as accuracy and respect for evidence and truth, then democracy and wider civic participation are threatened.»

Baroness O'Neill of Bengarve

communication in ways that would support democracy and wider civic participation. The promise has not been sustained.

I believe there are several reasons for this disappointing result. One is the dominant position of 'freedom of expression' in contemporary discussions of norms, resulting in mostly digital speech acts that only aim at self-expression and fail to communicate successfully. If we ignore ethical norms such as honesty, sincerity and civility, norms of justice such as free speech, press freedom, and rights to privacy, epistemic norms such as accuracy and respect for evidence and truth, then democracy and wider civic participation are threatened.

Another reason is the ease with which anonymous speech can bypass normative standards and their institutional realisation, as well as the consequent difficulty of applying legal and regulatory measures to improve and guarantee standards. Cultural, legal and regulatory approaches to these problems are all likely to prove difficult and controversial. At the same time, we do not seem to have much time to come up with new ideas and need to act fast to prevent developments that have happened in the past when technological innovations have shaken up societies in unprecedented ways and led to conflicts that took a very long time to be settled, e. g. following the invention of the written word or the letterpress.

Trust Within Science

The second discussion paper 'Trust Within Science:

Dynamics and Norms of Knowledge Production' takes a closer look at trust-enhancing practices within scientific research. Trust within scientific research encourages the confidence needed to share results and rely on each others' work and the methods applied. Moreover, trust in the practice and production of science is vital to resolving public controversies and enhancing a general acceptance of scientific results. Raising awareness of the norms and practices that govern scientific production, as well as monitoring the possible distortions that these

«Values, beliefs and emotions are contextually bound, thus having a careful look into the role they play in a series of case studies might be a valuable next step.»

Question: What are the most important insights and next steps taken from the ALLEA Working Group Truth, Trust and Expertise?

Ed Noort: The most urgent next steps should be addressing the role of values, beliefs and emotions in the perception and acceptance of scientific evidence. It is beyond dispute that a critical evaluation of scientific results belongs to the core scientific principles and standards of research integrity. This means that an honest process of science implicates provisional answers, but the best ones in the given context and under the present conditions. However, confronted with «an increasingly hostile (geo-) political context», a flood of values, beliefs and emotions swamps the public debates. Robbert Dijkgraaf, past president of the KNAW, warned recently that what hap-

practices may undergo due to internal and external pressures that come from the societal, technological, political and economic transformation of research practices, is thus a crucial step towards the construction of trust in science.

The paper therefore reaffirms the need for: (a) more articulated and context-sensitive standards of research integrity; (b) greater as well as better inter-, multi- and transdisciplinary collaboration; (c) re-adjustments in the evolving system of scientific publishing; and (d) the importance of ethical guidance as a shaping asset for trustworthy research.



Ed NoortCo-Chair of the Working Group
Truth, Trust and Expertise

pened in the controversies on climate change and on vaccination will be a future challenge for all scientific undertakings. The presentation of facts alone does not help any longer in a time when even the definition of 'facts' is controversial. Values, beliefs and emotions are contextually bound, thus having a careful look into the role they play in a series of case studies might be a valuable next step.

Trust in Science and Changing Landscapes of Communication

In order to establish and maintain trust in science, confidence hinges on communication by trustworthy and trusted mediators. The third discussion paper 'Trust in Science and Changing Landscapes of Communication' argues that the rise of social media and the 'platformisation' of public discourse online lead to specific trends that challenge long-established mechanisms for building trust. These trends are linked to, and partly reinforced by, certain economic, political and social phenomena, such as the corporatisation of communication, computational propaganda, an increasingly polarised political climate, and the establishment of new forms of detecting and signalling trustworthiness. All of this has substantial consequences for the communication of science and could lead to a pluralisation that might threaten the core pillars of trust in science: integrity, transparency, autonomy and accountability of researchers and journalists. José van Dijck, lead author of the paper, discusses with us the challenges ahead.

«What is at stake is trust in institutions both the institutions of media and of science are systematically under attack.»



José van DijckRoyal Netherlands Academy of Arts and Sciences

Question: What may be the role of online platforms such as Facebook, YouTube, or Twitter in diminishing people's trust in scientific evidence?

José van Dijck: Over the past few years, online social media platforms have proven to be significant distributors of fake news and disinformation, also in the area of science communication. Facebook, Twitter, and YouTube have done too little to prevent the distribution of fake scientific facts in public debates, such as those used by opponents of vaccination. In the debate on climate change, so-called denialists have been given a free ride on distributing sheer nonsense as 'proven facts'. The technological and commercial mechanisms built into social media platforms are not exactly conducive to nuanced dialogue and carefully weighed scientific evidence.

Moreover, these platforms contribute to what we have identified as three important societal developments: context collapse (the inability to verify and weigh information in the context of their provenance), confirmation bias (people 'like' what they already know), and polarisation push (the tendency of social media to polarise online debates). And in a political climate that is increasingly hostile to scientific expertise, it should come as no surprise that what is at stake here is not just trust in scientific evidence and rational discourse. What is at stake is trust in institutions—both the institutions of media and of science are systematically under attack.

Trust in Science: Opening up the Discussion

In collaboration with academies and other stakeholders, ALLEA has opened up the discussion on trust in science in different settings and formats: from multistakeholder workshops, an international scientific symposium in Sofia, an online campaign asking young scientists about their take on the topic, to a joint international forum with the think-tank Re-Imagine Europa.

Science in Times of Challenged Trust and Expertise

On 16 May 2018, the Working Group organised the scientific symposium 'Science in Times of Challenged Trust and Expertise', held in the context of the 2018 ALLEA General Assembly at the Bulgarian Academy of Sciences (BAS). Several members of the working group contributed to this event as keynote speakers and discussants, together with the then incoming ALLEA President Antonio Loprieno and members of the BAS.

Democracy in a Digital Society – Trust, Evidence and Public Discourse in a Changing Media Environment

ALLEA's publications on trust in science were presented at the forum 'Democracy in a Digital Society – Trust, Evidence and Public Discourse in a Changing Media Environment' held at the Berlin-Brandenburg Academy of Sciences and Humanities on 24 January 2019.

Organised by ALLEA and Re-Imagine Europa, the event addressed the impact that digital transformations have on democratic institutions in Europe and beyond. Leading experts from academia, politics, industry, civil



society organisations and media worked together on proposals for a European model of digital society and what values should guide this process.

President of Re-Imagine Europa and former President of France **Valéry Giscard d'Estaing**, and the European Commissioner for Digital Economy and Society **Mariya Gabriel** were among the speakers.









«Knowledge and reason are a cornerstone of the European project. Honoured that the European Federation of Academies of Sciences and Humanities (ALLEA) is a partner of Re-Imagine Europa, I congratulate ALLEA warmly for its 25th anniversary. We look forward to working together for the years to come on building a stronger Europe rooted in the ideals of the Enlightenment and anchored in truth, trust and expertise. Bon anniversaire, ALLEA!»

Valéry Giscard d'Estaing,

President of Re-Imagine Europa and former President of France

Standing up for Academic Freedom

ALLEA and its Member Academies stand by the principle that truly excellent science can only be produced in the absence of nefarious outside influences on the research endeavor. To this effect, ALLEA notes the fundamental importance of academic freedom and aims to speak out in its favour where the need arises.

Joining Forces in Europe

In cooperation with the European University Association and Science Europe, ALLEA has produced a general and universally applicable statement on academic freedom and institutional autonomy. The statement recalls the legal protections already granted to the academic endeavor and urges the relevant stakeholders to uphold and protect them in all situations. It is made clear that academic freedom does not exist only for its own sake but rather as necessary pre-condition to carry out good research and as an empowering right for researchers.

The statement was published on 10 April 2019 and has since been spread widely among research institutions, policymakers and the general public.

The Case of Hungary

As part of a concerted series of actions attempting to undermine the Hungarian science base, the Hungarian government has in the past years put up considerable hurdles for researchers in the country. The Hungarian Academy of Sciences as well as the Central European University, both flagship institutions of the Hungarian science and research system, have borne the brunt of the ongoing infringements and now find themselves in troubled waters. The latter of which has seen itself be forced to move parts of its faculties to Vienna.

ALLEA has intervened with a range of statements and open letters in support of the respective institutions.

As a consequence to a proposed amendment of the state budget in June 2018, the Hungarian Academy of Sciences' funding would be channeled through the newly created Ministry of Innovation and Technology. The academy's existence would thereby be put at risk of losing its independence if it engages in research not sanctioned by the government. The amendment was at the time proposed without due consultation of the academy and has resulted in international outrage. ALLEA produced an open letter to the Minis-



ter of Innovation and Technology, calling to shelf the proposed amendment until, at the very least, a proper consultation of the affected parties has taken place. The open letter was shared widely at the time and taken up by national and international media.

Unfortunately, the academy continues to experience harassment at the hands of its government, which denied the academy its legally mandated basic funding for 2019, resulting in a funding shortfall of the academy since the beginning of the year. ALLEA has once again issued a statement on the matter in February 2019 in which it recalls the Hungarian government's responsibility, as mandated by the Hungarian Fundamental Law, to protect the institutional autonomy and the academic freedom in Hungary. Eventually, and in order to secure its continued existence, the academy had to agree to a reform of the academy which removes the academy's funding prerogative over its research institutes and instead will place the institutes under a new governing body made up of both acade-

micians and scientists, but chaired by an appointee of the prime minister.

Often applauded for its international outlook and as one of the premier universities in Hungary, the Central European University has equally come under scrutiny. Parts of the university are in the process of relocating to Vienna as a result of so-called Lex CEU, which prohibits foreign accreditation of academic courses to take place in Hungary unless a campus is operated in the country of accreditation.

In addition, the government has attempted to infringe upon the university's right to set its own teaching and research agenda by trying to force a closure of CEU's Gender Studies department. ALLEA issued a statement on the matter in August, wherein all affected stakeholders are reminded of their responsibility to refrain from a politicisation of research and the right of an academic institution to set its own research agenda.

European Values and Academia

All European Academies Madame de Staël Prize for Cultural Values

The All European Academies Madame de Staël Prize for Cultural Values commemorates a deep-rooted understanding of European culture as connected by an inherent diversity and supported by a dynamic and vigorous intellectualism. The Prize is awarded to eminent scholars and intellectuals whose work represents a significant contribution to the cultural values of Europe and to the idea of European integration. It aims at promoting and strengthening an understanding of Europe as multifaceted, open and vibrant. The prize is awarded with the support of Compagnia di San Paolo.

2018 Madame de Staël Prize

Andrea Pető, Professor at the Department of Gender Studies of the Central European University in Budapest, was awarded the Prize in 2018 for her academic work introducing a gender perspective on Europe's memory of the Holocaust and political extremism.

The award ceremony took place during the 19th ALLEA General Assembly, hosted by the Bulgarian Academy of Sciences in Sofia on 16 May 2018. The prize was handed to Pető by **Mariya Gabriel**, the European Commissioner for Digital Economy and Society. She praised Pető's ingenuity in approaching Europe's history and memory, noting that: "Andrea Pető is a worthy recipient of this year's Madame de Staël prize for her groundbreaking intellectual contributions in her work on women's history in Eastern Europe. The prize is unique in highlighting the importance of the social sciences and the vision of a common European identity. My congratulations to Andrea Pető for this prize and to ALLEA for choosing such an outstanding scholar", Gabriel said.

During the award ceremony, Pető delivered a lecture on 'Parallel Stories in European History', where she presented a juxtaposition of the lives of Madame Germaine de Staël, a French philosopher and writer persecuted for her political standing during the Napoleonic era (and the inspiration for the ALLEA Prize), and Júlia Rajk, an outspoken civic and political activist during the repressive Hungarian Communist era.

Pető praised Germaine de Staël and Júlia Rajk as core contributors to the intellectual heritage of European political life and the value-based political activism that challenges authoritarianism. Despite the political persecutions they were both subjected to, Germaine de Staël and Júlia Rajk were reluctant to exercise self-censorship, but rather they 'unrelentlessly organized, talked, and wrote'.

Drawing similarities between the violent and repressive time periods that both Germaine de Staël and Júlia Rajk lived in, and the illiberal and anti-scientific forces gaining traction in Europe, Pető asserted: «We need to derive strength for our value-based fight, just like Germaine and Júlia did, because they knew that it would be a long one. (...) Not fighting would mean the loss of our right to the passionate protection of free science, which is the foundation of all scientific work.»

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Andrea Pető, 2018 Madame de Staël Prize Laureate





2019 Madame de Staël Prize

Mariana Mazzucato is the recepient of the 2019 Madame de Staël Prize. The jury praised her novel thinking, challenging conventional wisdom in the understanding of the role of the state in public policy and innovation.

Mariana Mazzucato is Chair of Economics of Innovation and Public Value at University College London and Director of the UCL Institute for Innovation & Public Purpose (IIPP). The award recognises her wide-ranging and stimulating work in the field of political economy, and particularly her groundbreaking contributions to understanding the role of the state in the field of innovation. The jury valued her outstanding efforts in shaping new narratives for Europe and its economy through her scholarly work and public engagement.

Connecting Academia with Policymaking

The award further acknowledges Mazzucato's commitment to connect academia with policymaking, most visibly through her contributions to the EU's research and innovation agenda, encouraging cross-disciplinary cooperation to achieve true innovation with societal relevance. both within and beyond Europe. Mazzucato has been advising policy makers around the world on innovation-led inclusive growth for years; she is currently serving as a Special Advisor to Carlos Moedas, the European Commissioner for Research, Science and Innovation, and for the Secretary General of the OECD Angel Gurría, in the context of the OFCD's New Growth Narrative.



Antonio Loprieno, chairman of the Madame de Staël Prize jury, commended Mazzucato's academic work, stating: «Mariana Mazzucato's scholarly work is rather exceptional in a way that it transcends academia. She is a brilliant and provocative economist who has challenged stories of value creation, innovation and growth. In an ingenious way, she has been able to create new economic narratives to understand contemporary realities in Europe and beyond. The jury honours her outstanding academic work and her engagement to bridge the gap between academia and policymaking.»



Europe on Test

Narratives of Union and Disunion

'Europe on Test: Narratives of Union and Disunion' is a series of conferences hosted by selected Academies of Sciences and Humanities in various European cities and coordinated by ALLEA. The main idea behind this conference series is to provide a variety of perspectives and to foster the dialogue on what Europe means in different geographical and cultural contexts; what kind of Europe we would like to create and what kind of Europeans we would like to be.

Its aim is to address the future of Europe as a community by making sense of an apparent dialectic between two parallel developments. On the one hand, an increasing sense of uncertainty towards the future. deriving from widespread, vet diffuse, fears of radical change and apprehensions of potential social and economic hardship threaten to undermine the confidence and trust in Europe as a provider of political stability, econo-

mic wellbeing, individual opportunities and scientific progress. On the other hand, an ever-stronger cosmopolitan identity is evolving and is equally shared among many citizens of Europe. Digital platforms as well as increased mobility have created a sense of belonging to a wider world and a united Europe. At the heart of this dialectic of union and disunion are deeply rooted narratives. which influence how we act and feel.



On 20 October, the Göttingen Academy of Sciences and Humanities hosted the first of four conferences within the series under the title 'Germany and Europe – Views from Within and Without'. With the UK heading to leave the EU, renowned historians, economists and political scientists discussed the historical, present and future relations of Germany in Europe, focusing especially on the UK and France, but also providing perspectives from Poland and Russia. The academic panels were accompanied by a speech of Stephan Weil, Prime Minister of Lower Saxony, on the possibilities of creating 'unity in diversity' in times of mass migration. During the opening of the event, ALLEA President Antonio Loprieno remarked: «The conference series by European Academies of Sciences and Humanities provides a platform for a pan-European exchange on forms of cosmopolitan, European identities, without leaving aside national and regional particularities.»

A Nordic Perspective on Europe

The Council of Finnish Academies hosted the conference 'Narratives of Union and Disunion – the Nordic Perspective' in Helsinki on 14 November 2018. Introduced by Ian Sundberg from the University of Helsinki and ALLEA Vice-President Krista Varantola. numerous scholars from the Nordic countries as well as Great Britain focused specifically on the diverse relations between the Nordic countries and the rest of Europe.

While the opening session emphasised the importance of the Nordic countries and societies for European in-



tegration in the past and present, the following sessions concentrated on challenges posed to this integration by increasing mobility and mass migration, as well as populism and extremist movements. The conference concluded with some reflections of Józef Niznik from the Polish Academy of Sciences, which will be hosting the following event within the conference series.

Upcoming Conferences

In 2019, the series will continue with conferences at the Polish Academy of Sciences in Warsaw (11 October) and at the Accademia delle Scienze di Torino (7-8 November). All conferences are open to the public and everyone is invited to engage.

«The conference series by European Academies of Sciences and Humanities provides a platform for a pan-European exchange on forms of cosmopolitan, European identities, without leaving aside national and regional particularities.»

> Antonio Loprieno, President of ALLFA

ALLEA Governance

Presidency and Board

A new ALLEA Board was established for the term 2018-2020 at the General Assembly in Sofia on 17 May 2018. The new ALLEA Board is chaired by Antonio Loprieno, who also assumed the Presidency of ALLEA on this occasion. Hubert Bocken, Krista Varantola and Graham Caie were elected Vice-Presidents by the ALLEA Board during the first Board meeting on 6 September 2018 in Berlin, jointly hosted by the Union of German Academies of Sciences and Humanities, and the German National Academy of Sciences – Leopoldina. Subsequent Board Meetings were hosted by the Polish Academy of Sciences in Warsaw in December 2018, and by the Royal Flemish Academy of Belgium for Science and the Arts in Brussels in March 2019



Antonio LoprienoPresident of ALLEA
Swiss Academies of Arts and Sciences



Hubert BockenVice-President of ALLEA
Royal Flemish Academy of
Belgium for Science and the Arts



Graham CaieVice-President of ALLEA
Royal Society of Edinburgh



Krista VarantolaVice-President of ALLEA
Council of Finnish Academies



Susanne AlbersLeopoldina and Union of the German
Academies of Sciences and Humanities



Luke Drury Royal Irish Academy



Gheorghe DucaAcademy of Sciences
of Moldova



Maarten PrakRoyal Netherlands Academy of Arts
and Sciences



Pere PuigdomènechInstitute of Catalan Studies and
Royal Academy of Sciences
and Arts of Barcelona



Paweł RowińskiPolish Academy of Sciences



Oliver Jens Schmitt Austrian Academy of Sciences

ALLEA Member Academies



Albania: Akademia e Shkencave e Shqipërisë;

Armenia: Գիտությունների ազգային ակադեմիա; Austria: Österreichische Akademie der Wissenschaften: Belarus: Нацыянальная акадэмія навук Беларусі;

Belgium: Académie Royale des Sciences des Lettres et des Beaux-Arts de Belgique; Koninklijke Vlaamse Academie van Belgie voor Wetenschappen en Kunsten; Koninklijke Academie voor Nederlandse Taal- en Letterkunde; Académie Royale de langue et de littérature françaises de Belgique;

Bosnia and Herzegovina: Akademija nauka i umjetnosti Bosne i Hercegovine;

Bulgaria: Българска академия на науките;

Croatia: Hrvatska Akademija Znanosti i Umjetnosti;

Czech Republic: Akademie věd České republiky; Učená společnost České republiky;

Denmark: Kongelige Danske Videnskabernes Selskab;

Estonia: Eesti Teaduste Akadeemia:

Finland: Tiedeakatemiain neuvottelukunta:

France: Académie des sciences - Institut de France; Académie des Inscriptions et Belles-Lettres;

Georgia: საქართველოს მეცნიერებათა ეროვნული აკადემია;

Germany: Leopoldina - Nationale Akademie der Wissenschaften; Union der deutschen Akademien der Wissenschaften; Akademie der Wissenschaften in Göttingen, Akademie der Wissenschaften und der Literatur Mainz, Bayerische Akademie der Wissenschaften, Berlin-Brandenburgische Akademie der Wissenschaften, Akademie der Wissenschaften in Hamburg, Heidelberger Akademie der Wissenschaften, Nordrhein-Westfälische Akademie der Wissenschaften und der Künste, Sächsische Akademie der Wissenschaften zu Leipzig (Associate Members);

Greece: Ακαδημία Αθηνών;

Hungary: Magyar Tudományos Akadémia;

Ireland: The Royal Irish Academy - Acadamh Ríoga na hÉireann;

Israel: האקדמיה הישראלית הישראליה;

Italy: Accademia Nazionale dei Lincei; Istituto Veneto di Scienze, Lettere ed Arti; Accademia delle Scienze di Torino;

Kosovo: Akademia e Shkencave dhe e Arteve e Kosovës;

Latvia: Latvijas Zinātņu akadēmija; **Lithuania:** Lietuvos mokslų akademija;

Macedonia: Македонска Академија на Науките и Уметностите;

Moldova: Academia de Științe a Moldovei;

Montenegro: Crnogorska akademija nauka i umjetnosti;

Netherlands: Koninklijke Nederlandse Akademie van Wetenschappen;

Norway: Det Norske Videnskaps-Akademi; Det Kongelige Norske Videnskabers Selskab;

Poland: Polska Akademia Umiejętności; Polska Akademia Nauk;

Portugal: Academia das Ciências de Lisboa;

Romania: Academia Română;

Russia: Российская академия наук (Associate Member);

Serbia: Srpska Akademija Nauka i Umetnosti;

Slovakia: Slovenská Akadémia Vied;

Slovenia: Slovenska akademija znanosti in umetnosti;

Spain: Real Academia de Ciencias Exactas, Físicas y Naturales; Reial Acadèmia de Ciències i Arts de Barcelona; Institut

d'Estudis Catalans;

Sweden: Kungl. Vetenskapsakademien; Kungl. Vitterhets Historie och Antikvitets Akademien;

Switzerland: Akademien der Wissenschaften Schweiz; **Turkey:** Türkiye Bilimler Akademisi; Bilim Akademisi;

Ukraine: Національна академія наук України;

United Kingdom: The British Academy; The Learned Society of Wales; The Royal Society; The Royal Society of Edinburgh.

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