



# **EUROPEAN ACADEMY** of Sciences and Arts

# 2019

## **ANNUAL REPORT**



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**In memoriam**  
**Nikolaus Prinz Lobkowicz**

9. Juli 1931 – 19. September 2019



Nikolaus Lobkowicz, 1990  
(Foto: © Michael Mauracher)

We deeply regret to inform you that our cofounder Nikolaus Lobkowicz passed away on September 19th, 2019. He contributed significantly to the establishment of the Academy and its foundation on March 7th, 1990. Nikolaus Lobkowicz was Vice-President for several years and lastly Honorary President of the Academy.

He had sought for possibilities to stem the decline in values, which he saw in Europe and realized that this challenge called for representatives of all disciplines - philosophers and historians, scientists and engineers. With the European Academy of Sciences and Arts he saw a way to convince its members and thereby science as a whole to do more joint research in this direction. An academy with competent international members could tackle the decisive problems of Europe and meet its pioneering role.

Nikolaus Lobkowicz was an impressive personality who never minced his words and whose generosity was very much appreciated.

**REQUIESCAT IN PACE**

## In memoriam

Kalle Achté Finland	Bernard Lietaer Belgium
Julian Ambrus USA	Nikolaus Lobkowicz Germany
Joachim Angerer Austria	Bruno Musso Italy
Nada Bodiroga-Vukobrat Croatia	Jacek Namieśnik Poland
Leslie Brent United Kingdom	Benno Parthier Germany
Gerd Brudermüller Germany	Gustav Peichl Austria
Salvator Bushati Albania	Krzysztof Penderecki Poland
Fernando Roldão Dias Agudo Portugal	Ferdinand K. Piëch Austria
Marko Feingold Austria	José Luis Ripoll García Spain
Edeltraud Forster Germany	Margarita Salas Falgueras Spain
Niki Goulandris Greece	Richard Schaeffler Germany
Nikola Hajdin Serbia	Helmut Sinzinger Austria
György Hajós Hungary	Ioan Ștefanescu Romania
Geoffrey Frederick Hewitt United Kingdom	Jānis Stradiņš Latvia
Felix Höffler Germany	Wilhelm Thal Germany
Mariss Jansons Germany	Alojz Uran Slovenia
Branislav Lichardus Slovakia	Raoul A. Weiler Belgium

R.I.P.

# VISION & MISSION



## The European Academy of Sciences and Arts shall:

- ✦ Identify and analyse European challenges
- ✦ Provide advice to European institutions wherever the Academy has expertise
- ✦ Develop a culture of collaboration and building bridges
- ✦ Promote transnational / interdisciplinary research and produce significant outputs
- ✦ Strengthen the role of scientific communities and European scholarship
- ✦ Foster cooperation between research and industry
- ✦ Solve complex issues identified as priority for the wellbeing of all Europeans

## The objectives shall be achieved through:

- ✦ Conferences, symposia, panel discussions
- ✦ Publications
- ✦ Cooperations with universities, scientific institutions and any other organization sharing similar objectives

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# I. PREFACE

It gives us a great pleasure presenting to you the annual report 2019.

In 2020 we celebrated 30 years European Academy of Sciences and Arts. This is quite a long time with many ups and downs too. March 7th 1990 was a wonderful day. We were a group with around 30 people from Austria and Germany and we convened in the first office at Waagplatz. The Academy was developing and growing step by step. Now we enjoy having around 2000 members from around 70 different countries.

Our main vision is to work interdisciplinary. I experienced that this is not easy, all our scientists are trained in working in a scotomic way which narrows the field of recognition for other fields in life. We tried in our meetings to overcome this deficit. Interdisciplinarity has to be trained early, in schools and at universities. It is becoming better in the last 30 years.

In the last 30 years we issued reports for the European Parliament, the European Commission mainly focused on health care topics. Health Care is very difficult to improve, there is no real concept for a having it European wide. The main problem is beside the delivery how to finance it. There are so many hindrances until a Euro comes to the patient. As an example there is the Corona crisis to be mentioned showing the lack of a European strategy in Health Care. Another report has been delivered to the FAO in Rome on food scarcity. This will become a bigger and bigger challenge worldwide.

We gathered in the crisis of Yugoslavia the eight academies and found a way keeping them together in the difficult time during their war. Out of this we created the Danube Academies conferences by recommendation of Commissioner Hahn. The first DAC took place Vienna in Vienna 2010, in 2020 the conference will take place in Sofia.

A specific emphasis is drawn on the project on Tolerance. Since 1997 we awarded an outstanding person with a Prize of Tolerance. In 2012 the Academy started to award the Rings of Tolerance to one representative of the three Abrahamic religions Christianity, Judaism and Islam, who actively engage for justice, humanity and tolerance between cultures. The idea of three identical rings can be traced back to the Ring Parable from Lessing's Nathan the Wise.

In the routine life of the Academy we always have the Festive Plenary Session. A key note will address an important topic. In 2019, our member Emmanuelle Charpentier gave the key note on "CRISPR-Cas9: A genome engineering technology". The day before, we had a symposium on "Complexity & Integration in Nature and Society", organised by our member Klaus Mainzer.

Apart from that, many other meetings took place. I recall a joint meeting in Podgorica where we investigated what will endanger our mankind.

At the end I have to thank all helping hands who are constantly supporting in different ways, organizing meetings, giving recommendations and finally supporting with memberships and funds.

Now we have to make a reform having the Academy fit for the next 30 years.

Felix Unger  
*President*

## II. GENERAL INFORMATION

### Who we are

The European Academy of Sciences and Arts is a non-governmental, European association committed to promoting scientific and societal progress. Founded in 1990 as a learned society, our 2,000 members are leading scientists, artists, and practitioners of governance, who are dedicated to innovative research, interdisciplinary and transnational collaboration as well as the exchange and dissemination of knowledge. Academy members are elected for their outstanding achievements in science, arts, and governance.





## How to become a member

### Membership criteria

The primary criterion for membership is sustained academic excellence in a specific field. This does not necessarily apply to class III (Arts), class VII (World Religions) and class VIII (Corporate and Public Governance). A candidate must in any case be able to think interdisciplinary and contribute to the mission and vision of the Academy. EASA wants to elect scientists, scholars and experts of international distinction, irrespective of nationality, gender, location or discipline.

### Nomination and election process

A proposal for a new member can only be submitted by an existing member of the Academy. If you want to nominate a candidate, the dossier must be submitted electronically to our office. The dossier will be examined and evaluated by the Dean (chairman) of the respective class and the respective Delegate (national representative). In case of approval, the candidate will be checked by the nomination committee that provides the Senate with a recommendation for election.

# Senate of the Academy

## Presidency (ad interim 2020)

President	Felix Unger
Vice-President	Brigitte Tag
Vice-President	Štefan Luby
Vice-President	Michał Kleiber
Treasurer	Karl Salm Reifferscheidt
Secretary	Maria Anna Eder

## Deans (are appointed after the reform)

Humanities
Medicine
Arts
Natural Sciences
Social Sciences, Law and
Economics
Technical and Environmental
Sciences
World Religions
Corporate and Public Governance

## Honorary Members

### Protectors

H.M. King Philippe of Belgium  
Milo Đukanović (Montenegro)

Borut Pahor (Slovenia)  
Alexander Van der Bellen (Austria)

## Former Protectors

Andris Bērziņš	Doris Leuthard
Jerzy Buzek	Tomislav Nikolić
Flavio Cotti	Karolos Papoulias
H.M. Juan Carlos de Borbón	Romano Prodi
Joseph Deiss	Jacques Santer
Heinz Fischer	Rudolf Schuster
Ivan Gašparovič	Danilo Türk
Gjorge Ivanov	Vaira Vīķe-Freiberga
Ivo Josipović	Franz Vranitzky
Milan Kučan	Valdis Zatlers
Norbert Lammert	

## Honorary Senators

Tibor Asbóth	Andreas Penk
Dora Bakoyannis	Peter Ramsauer
Sali Berisha	Petra Roth
France Bernik	Jürgen Rüttgers
Karl Bornschein	Sigram Schindler
Erhard Busek	Rudolf Scholten
Franz Fischler	Leo A. Seufert
Alfred Gusenbauer	Michael Spindelegger
Erich Hödl	Dorothee Stapelfeldt
Erwin Huber	Klaus Stierstadt
Daisaku Ikeda	Erwin Teufel
Jean-Claude Juncker	Guy Verhofstadt
Viktor Klima	Christian Wulff

## Nobel Prize Laureates

2000, Physics	Zhores I. Alferov
1978, Medicine	Werner Arber
1986, Physics	Gerd Binnig
2004, Chemistry	Aaron Ciechanover
1995, Chemistry	Paul J. Crutzen

# Nobel Prize Laureates

(continued)

2013, Physics	François Englert
2007, Chemistry	Gerhard Ertl
2010, Physics	Andre Geim
1990, Peace	Mikhail Gorbatschow
2007, Physics	Peter Grünberg
2005, Physics	Theodor W. Hänsch
2008, Medicine	Harald zur Hausen
2013, Physics	Peter Higgs
2011, Physiology or Medicine	Jules A. Hoffmann
1988, Chemistry	Robert Huber
2001, Physiology or Medicine	Tim Hunt
2000, Physiology or Medicine	Eric Kandel
2001, Physics	Wolfgang Ketterle
1985, Peace	Bernhard Lown
2008, Medicine	Luc Montagnier
2014, Physiology or Medicine	May-Britt Moser
1991, Physics	Erwin Neher
2010, Physics	Konstantin Novoselov
2001, Chemistry	Ryoji Noyori
2001, Medicine	Sir Paul Nurse
2006, Economics	Edmund S. Phelps
1986, Chemistry	John C. Polanyi
2011, Physics	Brian P. Schmidt
2011, Chemistry	Dan Shechtman
2002, Economics	Joseph E. Stiglitz
2016, Chemistry	Fraser Stoddart
2013, Physiology or Medicine	Thomas Südhof
1981, Medicine	Torsten N. Wiesel
2002, Chemistry	Kurt Wüthrich

## Office Salzburg

The Academy is situated in St. Peter in the heart of Salzburg and is managed by

- ✦ Ms. Franziska Huber, MA, BA (Head of office)
- ✦ Ms. Mag. Susanne Bieregger, MA (Membership Department)
- ✦ Ms. Ursula Proksch, BA phil. (Assistant to the President)



Office in Salzburg, St. Peter Bezirk 10, © European Academy of Sciences and Arts

## **Austrian Foundation**

The European Academy of Sciences and Arts holds a foundation in Austria entitled Academia Scientiarum et Artium Europaea Privatstiftung. It was established on 24th of November 2004 in Vienna. The foundation aims at raising additional funds for the European Academy of Sciences and Arts.

### **Executive Board**

Unger Felix, Von Schöning Wichard,  
Groeger Herbert, Salm-Reifferscheidt Karl

### **Supervisory Board**

Raidl Claus, Schmid Hans, Manstein  
Hans-Jörg, Thun-Hohenstein  
Christoph, Kickingner Roland,  
Heubach Rainer

Academia Scientiarum et Artium  
Europaea Privatstiftung  
St. Peter Bezirk 10  
5020 Salzburg Austria

## **Swiss Foundation**

The Swiss Foundation was established on  
March 18th 2004 in Zurich.

### **Supervisory Board**

Tag Brigitte (President)  
Jorio Marco (Vice-President)  
Holderegger Adrian (Member)  
Studer Stefan (Secretary)

# III. EVENTS 2019

March	Interdisciplinary symposium “Complexity and Integration in Nature and Society”, Salzburg
	Festive Session 2019 (evening reception), Salzburg
	Festive Session 2019 (inauguration of new members), Salzburg
	5. Fachtag Prävention, Rehabilitation, Physikalische Medizin 2019, Vienna
	11. Österreichischer Gesundheitswirtschaftskongress
	Prize of Tolerance to Hans Peter Haselsteiner, Salzburg
May	Workshop “Violated Earth – Violent Earth”, Raitenhaslach
	Ist der Klimawandel noch beherrschbar? Wege zwischen Klimaschutz und Anpassung an die Folgen der Erderwärmung, Hamburg
	Podiumsdiskussion Moderne Bildung von Morgen? - 21st century skills im Fokus, Vienna
	International Conference “Approaching 20?? Year”, Podgorica
	International conference: New philosophical and theological foundations for Christian-Muslim dialogue, Portorož
	ICE 2019 - International Congress on Electrophysiology, Belgrade 2019
June	Anthropologische und ethische Grundlagen der Medizin, Psychiatrie und Psychotherapie. Mensch und Roboter, Leiblichkeit und Maschine – Neue Interaktionsformen, Heidelberg

<b>July</b>	Summer School: Human Change Processes (Psychotherapy Research – Neuroscience – Nonlinear Complex Systems), Seeon
<b>September</b>	Advanced Ceramics and Applications VIII: New Frontiers in Multifunctional Material Science and Processing, Belgrade  MEDHUB Workshop: Towards Tolerant and Plural Dialogues of Values and Religions in the Euro-Mediterranean, Trieste
<b>October</b>	Expertengespräch "Das Gemeinsame von Wissenschaft und Kunst", Vienna  10th Danube Academies Conference, Prague
<b>November</b>	Rings of Tolerance, Cologne  Tagung „Die neue Aufklärung“, Salzburg  Disability and Rehabilitation - Bewegung zur Prävention und Rehabilitation, Vienna
<b>December</b>	18th Christmas Symposium of Physicists, Maribor

## Festive Session 2019

On March 2nd we celebrated our 29th Festive Session. The festivities started on Friday March 1st with an interdisciplinary symposium on “Complexity and Integration in Nature and Society”, organised by our members Klaus Mainzer.

### Symposium **Complexity & Integration in Nature and Society** March 1st, 2019

#### Programme

08.00 – 08.10	<b>Opening</b> Felix Unger, President of the European Academy of Sciences and Arts
08.10 – 08.30	<b>Introduction</b> Klaus Mainzer: Complexity and Integration in Nature and Society

#### Complex Systems in Physical, Environmental, and Life Sciences

08.30 – 08.45	<b>Giulio Casati:</b> What is Chaos that we should be mindful of it?
08.45 – 09:00	<b>Marko Robnik:</b> Complex Behaviour in Classical and Quantum Chaos

09.00 – 09.15	<b>Arturo Carsetti:</b> Complexity, Self-organization and Morphogenesis in Life Sciences
09.15 – 09.30	<b>Juan Perez-Mercader:</b> Biologically Inspired Chemically Operated Synthetic Systems (BICHOSS): building complexity in the laboratory from simple parts
09.30 – 09.45	<b>Marc Thorsten Hütt:</b> Understanding biological complexity – the value of Systems Biology
09.45 – 10.00	<b>Edmond Pinguli / Nasho Pinguli:</b> Climate Change and Global Warming. Water Scarcity in the World and in Albania
10.00 – 10.15	<b>Hans-Martin Sass:</b> Biocomplexity, Bioethics and Integration
10.15 – 10.30	Coffee break

### Complex Systems in Medicine and Psychology

10.30 – 10.45	<b>Simon John Simonian:</b> Complexity in Medicine and Psychology
10.45 – 11.00	<b>Zoran Kovacevic:</b> Cancer as Paradigm of Complex Diseases
11.00 – 11.15	<b>Marjan Slak Rupnik:</b> Complex Systems in Diabetes
11.15 – 11.30	<b>Patriciu Achimas-Cadariu:</b> Complex Systems in Oncology: A Case for Ovarian Cancer
11.30 – 11.45	<b>Günter Schiepek:</b> Complexity and Integration in Psychological Medicine
11.45 – 12.00	<b>Ernst Pöppel:</b> Time Windows for Complexity Reduction in Neural Information Processing
12.00 – 12.15	<b>Yan Bao:</b> Complexity Reduction in Visual Information Processing with Different Attention Mechanisms
12.15 – 13.15	Lunch break
13.15 – 13.30	<b>Uwe an der Heiden:</b> The Complex Integrative Function of Human Memory from a Psychoneurological Perspective

13.30 – 13.45	<b>Viktor Jirsa:</b> Translational Neuroscience: from bifurcations to personalized medicine
13.45 – 14.00	<b>Türker Kiliç:</b> What Brain Research has taught us about what Life is

## Complexity & Integration in Technical, Economic, and Social Sciences

14.00 – 14.15	Mihail C. Roco: Principles of Convergence in Nature and Society: with Illustration to Converging Technologies
14.15 – 14.30	<b>Markus C. Müller:</b> Complexity and Divergent Economic Policy Preferences – Can Governments anticipate and engineer Optimal Solutions to Popular Demands?
14.30 – 14.45	<b>Hans G. Danielmeyer:</b> Complexity and Integration – Understanding the Industrial Society with Quantitative Forecasting Quality
14.45 – 15.00	<b>Mirsad Hadžikadić:</b> A Complex System Model of an Identity-based Conflict in Developing Nations
15.00 – 15.15	<b>Thomas Reuter:</b> The Principle of ‘Unity in Diversity’ as a Measured Response to Resurgent Nationalism: Valuing Local Diversity as well as Global Citizenship is not a Contradiction
15.15 – 15.45	Coffee break

## Complexity & Integration in Humanities and World Religions

15.45 – 16.00	<b>Michael von Brück:</b> Complexity and Integration of/in Religion, Ecology, and Ethics
16.00 – 16.15	<b>Annette Noller:</b> Intercultural Complexity and Integration of Ethics
16.15 – 16.30	<b>Hans-Ferdinand Angel:</b> Credition - The Believing Process as a Highly Complex Phenomenon
16.30 – 16.45	<b>Yutaka Tanaka:</b> Clash of Civilizations and Ways of Religious Coexistence: Christianity and Japan after the Meiji Restoration

16.45 – 17.00

**Archbishop Felix Machado:** The Cared Earth is the Common Home for the Family which is the Basic Cell of Society: a Catholic Perspective

17.00 – 17.15

**Abbot Nissho Takeuchi:** Wholeness and Variety in Buddhist Perspective

17.15

Discussion

18.00

Closing

Supported by:

Deutsche Bank  
Wealth Management



Symposium Complexity & Integration in Nature and Society, © European Academy of Sciences and Arts



On Saturday March 2nd, we had the pleasure to welcome around 80 new members from 26 different countries, who were inaugurated as ordinary Academy members. The Festive Speech was delivered by our new member Emmanuelle Charpentier on the topic “CRISPR-Cas9: A genome engineering technology that revolutionises life sciences and medicine”.



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# IV. REDESIGN AND REDIRECTION – SHAPING AND ADJUSTING EUROPE

Recommendations from the European Academy of Sciences and Arts

## I. Redesign: Challenges and Setting the Course

Today Europe is more torn than ever and divided on fundamental issues. Now is the time to point the way forward and build bridges. The launch of the new Commission offers the opportunity to re-adjust Europe's inner balance and enable the Union to respond better to the challenges of today and tomorrow. We need Europe, but no longer from the same Europe, but a different Europe.

### **We are convinced:**

Continuing the status quo with only cosmetic retouching is not enough. Europe must become more capable of acting, more efficient, more transparent, and more innovative. It is therefore high time to hold a broad social debate about future challenges and to set the course for it anew. This includes:

- 1** A revitalized debate about centralism and subsidiarity, about the assignment of tasks and competences at European, national, and regional/local level.
- 2** A new honesty and not enthusiasm for Europe without substance and a solid foundation: It is not appropriate to defend the status quo, especially if the institutional and legal achievements of the Union must be secured for the future. The struggle for power and influence, the power grab between the institutions, must be stopped. It is time for a new culture of

political respect and constructive dialogue.

**③ Much more attention and consideration to the preferences of the citizens of Europe and its societies.** We must deal with ourselves anew and define how we proceed based on shared interests and cultural values in Europe. However, these often show more differences than similarities in the Member States and regions. This includes a return to shared historical experiences and requires a much greater extent than before the exchange and understanding of the shared path forward.

**④ Achieving consensus and workable solutions to problems** that lie ahead as a complement to those that concern us tomorrow and the day after tomorrow. The reasoning for Europe must be made more profound, more conscious in everyday life, and shared in the respective national horizon. If it is possible to raise a new awareness of Europe that knows about Europe's contradictions and different national characteristics, recognizes and shapes the limits and possibilities of integration, then the tasks ahead can be better managed together.

The European Academy of Sciences and Arts would like to contribute to a new understanding of European politics and a new coexistence between our member states and the European institutions. It is time to rethink European policy in our countries. The need to view the political challenges of today to a much greater extent than hitherto from the point of view of European ability to act requires a profound realignment of European policy at the national and European level.

## **II. Redirection: Orientation and Adjustment**

Since the Second World War, a global civilization has developed based on several fundamental values: Peace, human dignity and human rights, democracy, the rule of law, social justice, non-discrimination, diversity, nature- and environmental protection, respect for life and humanity, global

solidarity on global problems, multilateralism and respect for international law. Europe, along with other countries in the world, has actively contributed to this global civilization - Europe's wellbeing depends on the maintenance of this civilization. However, their threats are increasing rapidly: Wars, massive violations of human rights, degradation of people, authoritarianism, dictatorship and violence, as well as terror, discrimination, destruction or suppression of diversity, national selfishness, threats, extortion and disregard for international law as a means of politics, corruption, and influence of organized crime on political action.

**In uncertain times like these, security and protection, citizens' preferences are dominating. Surveys among Europe's populations show that the overriding preference is a Europe that „protects.“** If the EU cannot provide this, the population is increasingly calling for the nation-state, the region, and the local area nearby, not least for civil society or right-wing populist groups. The massively increased need for security and protection affects everyone - regardless of party orientation and demographic aspects.

About what dimensions of security and protection are we talking about? Economic security, social security, cultural (self-) security, lifestyle security, legal security, external and internal security, environmental security, general expectations, etc. If we want to revive the European dream, all our efforts must focus on this widespread security problem.

### III. Recommendations

The central challenge for Europe is, therefore, to deploy sufficiently binding forces internally and to represent a visible and consistent strategic orientation externally.

Against this background, the European Academy of Sciences and Arts proposes both a „redesign“ and a „redirection“ of the European Union:

- 1 With the economic and fiscal crisis since 2008 and especially with the asylum and migration crisis since 2015, new divergences and deep cracks have occurred. These have disclosed different national interests, concerns, prefe-



rences, assessments, and interdependencies. Europe's „value“ was never just the economic return and success of integration, but primarily the diversity of its cultures, lifestyles, and social structures. The revitalization of our cultural heritage and a new understanding of tolerance are essential for the success of a common strategy. This is even more important since the tasks ahead that result from the issue of shared security cannot be accomplished without a deeper shared understanding of freedom, tolerance, and the commonalities of our cultural heritage. A redesign will only succeed if it is not perceived as an expansion of centralistic-paternalistic Europe. However, instead focuses on the freedom, diversity, and responsibility of its citizens and peoples and act on the pressing problems of our time - unemployment, migration, security, the environment, digitally-driven economy.

The European Academy of Sciences and Arts advocates that Europe actively and fully promote the values of global civilization. We advocate that this be made a central strategic objective of the community.

It also seems essential to us - as the European Academy - to bring a new drive to education, university, and research policy, a momentum that should not only create further knowledge and promote innovation. It should also lead to an improved mutual and Europe-wide understanding and thus secure and stabilize the internal, integrative cohesion of the Union. Science and research should not be regarded as „l'art pour l'art“ but should be re-oriented to their utilization and benefit for business and society.

The European Academy of Sciences and Arts, therefore, proposes, under the patronage of the President of the Commission and in close cooperation with designated national research institutions under the direction of the European Academy, to initiate a profound and fundamental dialogue, at the end of which there will be the approval of concrete recommendations for action.



② Now, scepticism among many European member states, but also disappointment among the applicant countries are hampering the debate about future enlargement and shaping of the European Union. It is, therefore, time for the European Union to adopt a policy of honesty towards the candidate countries and those who want to become one in the coming years. Furthermore, to formulate a realistic concept that does not create new distortions, but is suitable to strengthen the transformation process and to develop new forms of cooperation.

The European Academy of Sciences and Arts, therefore, proposes to evaluate and further develop the existing formats of exchange with the candidate countries based on a fundamental and honest process of dialogue, to generate new proposals on how the central question of enlargement will be addressed institutionally and operationally in the coming years.

③ It is time for Europe to begin to see diplomacy and military strategy as one entity. Europe must fundamentally clarify its relationship to the order, availability and dimension of its strategic resources. Europe today has neither an army nor any significant intelligence service, and the standard foreign and security policy is also far from being a substitute for national foreign policy. Europe's security policy-making power depends on the political will and the military capabilities of the members of the European Union. This relates to the ability profile, the availability of the tools based on the international commitments made by the member states, and it has its equivalence in the capacity of the European Union to also use the available skills.

It is time for Europe to add more power and sustainability in politics vis-a-vis to non-European areas. Greater adoption of responsibility in Europe's closer and broader neighbourhood will also contribute that the relationship between Europe and the other global players will be put on a permanent new footing.

The European Academy of Sciences and Arts, therefore, proposes to close the increasingly clear gap between expectations and capabilities in foreign and security policy and to revitalize and promote them. In order to achieve



this, the Academy recommends establishing an international High-Level Group (made up of researchers, politicians and economic experts) and developing a visionary long-term concept (e.g., including an EU Security Council), such as the Cecchini Report on the introduction of the domestic market or the Delors Report on Economic and Monetary Union.

With the above outline of issues, ideas, and recommendations for reorientation and reform of the EU, the Academy wants to help provide a compass to make the EU reliable for the future under its new leadership. In an increasingly volatile world, it is our priority to develop standard innovative views on design and modernization, to make them compatible and to implement them for the common good of European citizens.

*Project group „Europe“ of the European Academy of Sciences and Arts: Franz-Lothar Altmann, Klaus Gretschnann, Franziska Huber, Ulrich Schlie, Wolfgang Schmale, Felix Unger, Werner Weidenfeld*

# V. DANUBE ACADEMIES CONFERENCE

The Danube Academies Conference brings together all national Academies of the Danube region and focuses on scientific developments of this area. It is a platform for the exchange between the national academies from Central and Eastern Europe. The idea goes back to 2010 when the EU launched the initiative The EU Strategy for the Danube Region with the aim of improving the coordination of relevant actors and programmes to promote the development of the Danube region. Based on this EU project and the support of the European Commission, especially Commissioner Johannes Hahn, the European Academy of Sciences and Arts organized the first Danube Academies Conference in Vienna in 2011.

Based on this project, the European Academy of Sciences and Arts organised the first Danube Academies Conference in Vienna in 2011.

The following conferences were held in:

- Bratislava, Slovakia (März 2012)
- Budapest, Hungary (September 2012)
- Bucharest, Romania (April 2013)
- Chisinau, Moldova (April 2014)
- Ulm, Germany (April 2015)
- Ljubljana, Slovenia (May 2016)
- Belgrade, Serbia (September 2017)
- Stuttgart, Germany (October 2018)
- Prague, Czech Republic (October 2019)



Report by Elke Dall about the

## 10th Danube Academies Conference

published on [www.s4d4c.eu](http://www.s4d4c.eu)  
November 5, 2019

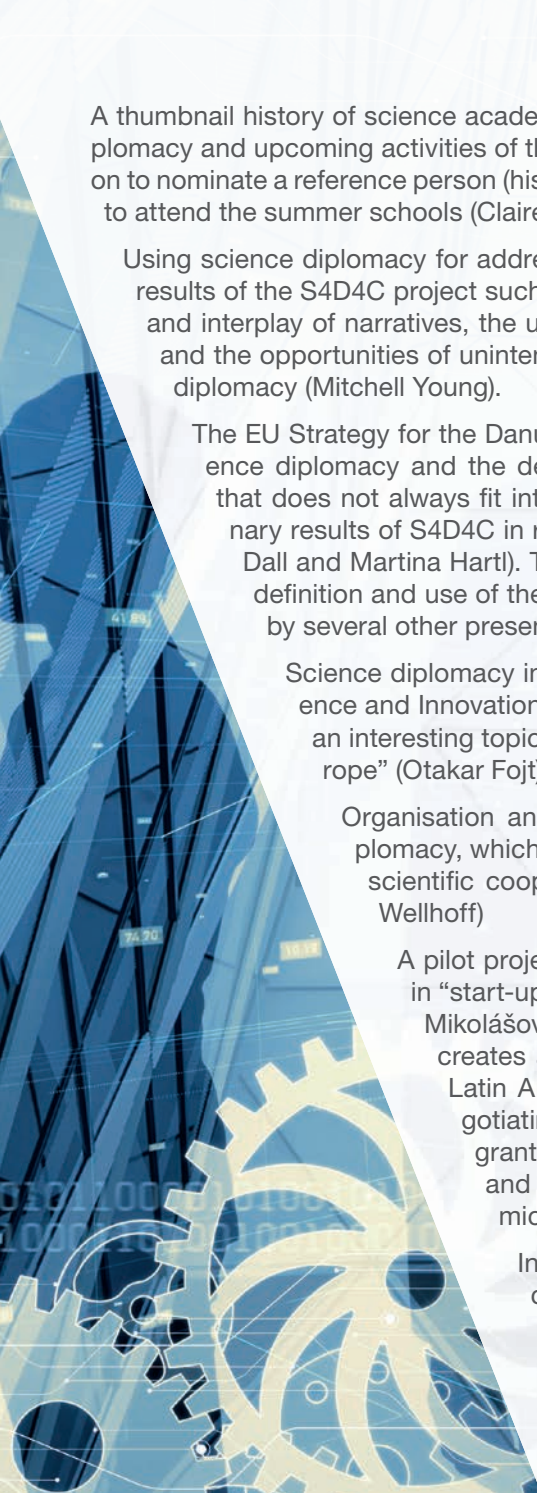
On 30/31 October 2019, the Czech Academy of Sciences (CAS, presided by Eva Zážimalová) in cooperation with the European Academy of Sciences and Arts (EASA) and ELI Beamlines, organised the 10th Danube Academies Conference in Prague. The meeting was dedicated to two broad topics: Science Diplomacy and Research Infrastructures. The Danube Region is an important macro-region in Europe, as confirmed by Commissioner Johannes Hahn in a recorded welcome to the participants shared by EASA President Felix Unger.

The EU Science Diplomacy Cluster projects S4D4C and InsSciDE contributed to the discussion with representatives of the Czech science system, the Academies of Sciences and Arts of the wider Danube Region, and invited diplomats. The lively session on science diplomacy in Europe chaired by Hana Sychrová (CAS) shed light on different perspectives:

Building up soft skills for science diplomacy to increase the soft power and multilateral cooperation (Petr Kaiser, MFA of the Czech Republic)

Strengthening the united voice of science in Europe through the European Academies Science Advisory Council (EASAC) and other sources of independent science advice for policy audiences such as the SAPEA consortium or the IAP network (Nina Hobbhahn)

Dealing with uncertainty, foresight for policy making and contributions of the Joint Research Centre, for example its scientific support to the Danube Region, with a flagship report on China, the Enlightenment 2.0 research programme, the Foresight Competence Center, etc. (Miroslav Veskovíc).



A thumbnail history of science academies creating and sustaining science diplomacy and upcoming activities of the InsSciDE project, including an invitation to nominate a reference person (historian) for each academy and candidates to attend the summer schools (Claire Mays)

Using science diplomacy for addressing global challenges and preliminary results of the S4D4C project such as the complexity of the actor networks and interplay of narratives, the untapped potential of the social sciences and the opportunities of unintended consequences and implicit science diplomacy (Mitchell Young).

The EU Strategy for the Danube Region as an enabling factor for science diplomacy and the de-facto science diplomacy in the region that does not always fit into classical definitions, including preliminary results of S4D4C in relation to a conceptual broadening (Elke Dall and Martina Hartl). The difficulties identified in relation to the definition and use of the term “science diplomacy” were echoed by several other presenters.

Science diplomacy in the 21st century seen from the UK Science and Innovation Network in Central and Eastern Europe, an interesting topic as “the UK is leaving the EU but not Europe” (Otakar Fojt)

Organisation and challenges of the French science diplomacy, which also includes French funding in a call for scientific cooperation in the Danube Region (Mathieu Wellhoff)

A pilot project to develop Czech science diplomacy, in “start-up nation” Israel. R&D&I Counsellor Delana Mikolášová shared her activities and tools as she creates a role that should spread also to Africa, Latin America, and Asia-based embassies: negotiating innovation agreements, informing on grant schemes, providing contacts, agendas and networking services for Czech academics and government officials visiting Israel.


In other sessions, topics like Danube countries success in the EU Framework Programmes or ERC, the set-up of a transnational pension solution for researchers, concrete examples from Serbia and Hungary, as well as the

role of research infrastructures in cooperation were discussed. Ambassador Virginia Hesse of Uganda outlined European-African Academies of Science cooperation on climate change response (biodiversity, food and water security), stating “we all created the global problems. It’s our joint responsibility to find solutions – now or never.”

Representatives of the Czech Ministry of Industry and Trade and Foreign Ministry (Karel Havlíček and Martina Tauberová) highlighted the ambition to become an innovation leader – “Czech Republic: Country For the Future” – which includes active science policy and increased international cooperation, with an emphasis also on the complex relationship between science and diplomacy and ‘nation branding’. In the conclu-



Danube Academies Conference in Prague, 30/31 October 2019, © Czech Academy of Sciences



sions and discussions, it was also clear that the landscape of competition and cooperation has changed a lot in the past 20 years. Countries that were once competitors are now partners within the EU, and relationships to the US, China, African countries are changing. Academic institutions are crucial to reach mutual understanding.

The cooperation in the Danube Region puts countries together that are Member States with enlargement and neighbourhood countries, and brings countries into the focus of bilateral and multilateral collaboration that otherwise would probably not have been priorities. Several initiatives have been launched in the priority areas of the joint strategy related e.g. to knowledge society, competitiveness and skills, such as for example: regular multilateral calls for funding; capacity building and networking projects such as the Danube-INCO.NET; a regular award for extraordinary scientific achievements and impact in relation to the region and many others which tick the boxes in relation to definitions and role conceptions for science diplomacy outlined also in the S4D4C State-of-the-Art report. The stakeholders stressed the mutual and reciprocal benefits from cooperation and sharing in the context of upstream/downstream cooperation in the Danube Region and transfer lessons learnt to the Alpine macro region (as discussed by Harald Pechlaner and Roland Benedikter on the second day of the event) and the joint objective to increase the profile and position of Europe in a knowledge based world.

# Programme

30 October 2019

12:00 - 13:00	Registration and light lunch
13.00 - 13:30	<b>Opening and welcome</b> Eva Zažímalová (President, Czech Academy of Sciences) Felix Unger (President, European Academy of Sciences and Arts) Video message of Johannes Hahn (EU Commissioner for European Neighbourhood Policy and Enlargement Negotiations) Karel Havlíček (Deputy Prime Minister and Minister of Industry and Trade) Pavel Doleček (Deputy Minister, Ministry of Education, Youth and Sports of the Czech Republic)
13:30	<b>TOPIC I: Science diplomacy in Europe</b> Chair: Hana Sychrová (Member of the Academy Council, Czech Academy of Sciences)
13:30 - 13:42	<i>Scientific diplomacy: building on soft skills;</i> Petr Kaiser (Special Envoy for Science Diplomacy, Ministry of Foreign Affairs of the Czech Republic)
13:42 - 13:54	<i>Strengthening the united voice of science in Europe;</i> Christiane Diehl (Executive Director, EASAC - European Academies' Science Advisory Council, Germany)
13:54 - 14:06	<i>Dealing with uncertainty: foresight for policymaking;</i> Miroslav Veskovíc (Scientific Expert, EU Commission Directorate General Joint Research Centre)
14:06 - 14:18	<i>Science academies creating and sustaining science diplomacy;</i> Claire Mays (Executive Director, H2020 InsSciDE Project, Sorbonne University)

14:18 - 14:30	<i>Science diplomacy in action: the EU strategy for the Danube region as enabling factor</i> ; Elke Dall (Project Coordinator, S4D4C; Centre for Social Innovation, Vienna), Martina Hartl (Deputy Head of Unit for International Research Cooperation, Austrian Federal Ministry of Education, Science and Research)
14:30 - 14:42	<i>Using science diplomacy for addressing global challenges</i> ; Mitchell Young (Institute of International Studies, Faculty of Social Sciences, Charles University Prague)
14:42 - 14:54	<i>The importance of science diplomacy in the 21st century</i> ; Otakar Fojt (Regional Manager of the UK Science and Innovation Network in Central and Eastern Europe, British Embassy Prague)
14:54 - 15:06	<i>Organization and challenges of French scientific diplomacy</i> ; Mathieu Wellhoff (Scientific Attaché, Embassy of France in Prague)
15:06 - 15:18	<i>Czech scientific diplomacy towards Israel</i> ; Delana Mikolášová (Scientific, R&D and Innovation Counsellor, Embassy of the Czech Republic to Israel)
15:20 - 15:35	Discussion
15:35 - 16:00	Coffee break
16:00	<b>TOPIC II: Science diplomacy in Danube countries</b> Chair: Felix Unger (President, European Academy of Sciences and Arts)
16:00 - 16:12	<i>Success of Danube countries in the framework programmes of EU – the role of scientific diplomacy</i> ; Stefan Luby (Vice President, European Academy of Sciences and Arts; Senior Researcher at the Slovak Academy of Sciences)
16:12 - 16:24	<i>RESAVER - How to foster mobility of researchers?</i> ; Paul Jankowitsch (Independent Expert, Austria)

16:24 - 16:36	<i>Science as unique bridge and language between people and civilizations;</i> Vojislav Mitic (University of Belgrade and Nis, Serbia; Scientific Adviser in Institute of Technical Sciences of Serbian Academy of Sciences)
16:36 - 16:48	<i>The Andrassy University Budapest as a flagship project;</i> Atilla Vincze (Andrassy University Budapest)
16:48	<b>TOPIC III: Europe and its neighbours</b> Chair: Marek Hrubec (Director, Centre of Global Studies, Institute of Philosophy, Czech Academy of Sciences)
16:48 - 17:00	<i>New financial framework of the EU (2021-2027) and scientific cooperation of the EU with neighbouring countries;</i> Zdeněk Čech, (Economic Counsellor and Deputy Head, Representation of the European Commission in the Czech Republic)
17:00 - 17:12	<i>Diplomatic and scientific cooperation between European and African countries;</i> H. E. Virginia Hesse (Ambassador of Ghana to the Czech Republic, Slovak Republic, Hungary, Romania, and the Republic of North Macedonia)
17:12 - 17:24	<i>Academic exchange with Europe's Muslim neighbours: a venue for soft diplomacy?;</i> Zora Hesová (Researcher, Centre of Global Studies, Institute of Philosophy, Czech Academy of Sciences)
17:25 - 18:00	Final discussion

### 31 October 2019

8:30	Transfer to ELI Beamlines Research Centre ELI BEAMLINES, Za Radnicí 835, Dolní Břežany, (20 km from Prague - <a href="https://www.eli-beams.eu/en/">https://www.eli-beams.eu/en/</a> )
9:15	<b>Broad collaboration and research infrastructures</b> Chair: Jan Hrušák (Chairman, European Strategy Forum on Research Infrastructures; J. Heyrovský Institute of Physical Chemistry, Czech Academy of Sciences)

09:20	<b>TOPIC IV: Role of European research infrastructures</b>
09:20 - 09:32	<i>Clustering of research infrastructures of the Czech Republic within the European Research Area and worldwide; Lukáš Levák (Director, Department of Research and Development, Ministry of Education, Youth and Sports of the Czech Republic)</i>
09:32 - 09:44	<i>Scientific diplomacy between North and South in the macro-regions Alps: The role of EURAC research. Which learnings for the macro-region Danube?; Harald Pechlaner (Head of Center for Advanced Studies, EURAC Research – European Academy of Bozen/Bolzano), Ronald Benedikter (Co-Head of Center for Advanced Studies, EURAC Research - European Academy of Bozen/Bolzano)</i>
09:44	<b>TOPIC V: DANUBIUS-RI – International Centre for Advanced Studies on River–Sea Systems</b>
09:44 - 09:56	<i>DANUBIUS-RI International Centre for Advanced Studies on River-Sea Systems; Adrian Stanica (DANUBIUS-RI Project Coordinator, Bucharest; Romanian Institute for Marine Geology and Geo-ecology - GeoEcoMar)</i>
09:56 - 10:08	<i>DANUBIUS-RI – example of research infrastructure collaboration; Jiří Kolman (Scientific Secretary, Centre of Excellence CzechGlobe, Global Change Research Institute, Czech Academy of Sciences; DANUBIUS-RI)</i>
10:08 - 10:20	<i>Participation of the Bulgarian Academy of Sciences in the European structure DANUBIUS-RI; Dimitar Ivanov (Scientific Secretary, Bulgarian Academy of Sciences)</i>
10:20 - 10:32	<i>International cooperation and resource mobilization for better efficiency of management and conservation planning in the Danube River; Mirjana Lenhardt (Research Professor, Institute for Multidisciplinary Research University of Belgrade)</i>
10:32 -10:50	Coffee break

10:50	<b>TOPIC VI: Projects ELI and HiLASE</b>
10:50 - 11:02	<i>ELI: ELI – future and opportunities</i> ; Roman Hvězda (Project Manager, ELI Beamlines Czech Republic)
11:02 - 11:14	<i>The ELI - ALPS facility</i> ; Zsolt Fülöp (Advisor, ELI-ALPS, Hungary)
11:14 - 11:26	<i>The HiLASE Centre: A laser technology infrastructure</i> ; Tomáš Mocek (Head of the HiLASE Centre, Czech Republic)
11:30 - 11:40	Final discussion
11:40 - 12:00	Closing remarks
12:00 - 12:45	Light lunch
12:45 - 13:40	<b>On-site visit ELI/HiLASE</b> (optional)
13:40	Transfer to Prague

## VI. TOLERANCE PROJECT

Since 1997 the European Academy has awarded the Prize of Tolerance recognizing the commitment to humanity and tolerance. Based on the Charter of Tolerance, this award will be given to personalities or institutions that promote cross-border humanity and understanding between religions and countries. So far, this distinction has been awarded among others to the former Mayor of Jerusalem Teddy Kollek †, the International Red Cross, the founder of the Children of Abraham Foundation Dorothea Rosenblad, the former Foreign Minister Hans Dietrich Genscher † and Vienna's former Archbishop Franz Cardinal König †.

In 2019, the Prize was awarded to Hans Peter Haselsteiner.



F.l.t.r.: Felix Unger, Hans Peter Haselsteiner, Andrea Klambauer, Claus Raidl, ©SN/Marco Riebler

At the suggestion of the British publisher and diplomat Lord George Weidenfeld †, who has rendered outstanding service building bridges between cultures and states, since 2012 the tolerance rings have been awarded to one representative each of the three

Abrahamic religions Christianity, Judaism and Islam, who is actively engaged in promoting tolerance and compassion as well as cross-border dialogue and against racism.

The idea of the three identical rings can be traced back to the Parable of the Ring from Lessing's Nathan the Wise. The text is about a family tradition in which a father hands

down a special ring to his favourite son and causes the ring to always be entrusted to the favourite son. The tradition comes to an end with a father who loves his three sons equally and has two identical rings reproduced.



Tolerance Rings Award 2019, f.l.t.r.: Richard C. Schneider, Jan and Aleida Assmann, Mouhanad Khorchide; ©European Academy of Sciences and Arts

The parable can be interpreted as meaning that the three rings represent the three monotheistic world religions (Judaism, Christianity, and Islam), the three sons are the respective communities of faith and the father is a loving God who prefers no religion. God (Father) therefore loves all men (sons), no matter what religion they belong to.

In 2014, the European Academy of Sciences and Arts hosted the award for the first time in Cologne, not least because of the city's multicultural population structure. In order to better tie the event locally and to gear towards the media, a local board of trustees was founded in September 2016. After the 2014 and 2015 awards, the idea emerged to redesign the format of the event in order to make the topic better accessible to a wider audience. The careful considerations of the Board of Trustees and the aspect, that the key to a peaceful coexistence of different cultures lies in education and cultivation, led eventually to the cooperation with the Center for Teacher Education (ZfL) at the University of Cologne.

In 2019 the Rings were awarded to: Richard C. Schneider (Journalist), the couple Jan and Aleida Assmann (Professor of English and Literary Studies, Egyptologist) and Mouhanad Khorchide (Islamic scholar)

# VII. REPORTS

## Vienna UN Meeting Spirituality and Justice Initiative

October 7th 2019

Report: Prof. Dr. Elmar Kuhn, Dean class VII

It was very important to emphasize the fact that UN Office of Drugs and Crime hosted the daylong event about collaboration with Faith based Organizations (FBO), that it was opened by the UNODC Director of Policy Analysis and Public Affairs, Dr. Jean Luc LeMahieu and the Permanent Representative of Spain Ambassador, Senen Florescu Palau.

Representatives from Austria, Canada, Costa Rica, Dominican Republic, Eritrea, Jordan, Lebanon, and Morocco also attended the four sessions at the United Nations. A list of potential topics for discussion was prepared by the Civil Society Team of UNODC. The International Commission of Catholic Prison Pastoral Care organized an international exhibition of prison art at the United Nations and at the Stephani-Saal. Auxiliary Bishop of Vienna, Franz Scharl, who is responsible for Catholic prison pastoral care spoke at both UN and Stephani-Saal events. Imam Dzemat Sibljakovic, the Muslim coordinator in prisons, Markus Fellingner the Protestant chaplain and Mrs Halbeisen from the Buddhist chaplaincy also participated in the articulation of „Vienna Recommendations“. Dr. Michael Platzer, from the UN Studies Association moderated the discussions of empathy and social justice, ethics and good governance, humane treatment and resocialization of offenders, and restorative justice and victim assistance. Professor Karin Bruckmueller made an impassioned plea for non-judicial settlements with acknowledgement of harm done to victims and non-penal community service.

Azza Karam, the UN Coordinator of the Task Force for Engagement with Faith based Organizations delivered an encouraging video message from New York, while Ibrahim Salama, from the Office of the High Commissioner for Human Rights sent a positive message from Geneva to invite closer collaboration between the two offices.

The symposium at the UN, co-organized by Elmar Kuhn from the European Academy of Science and Arts, was attended also by Prof. Givi Lomidze of the Georgian Orthodox Church and P. Mike Deeb, Procurator Gene-

ral of the Dominican Order for Justice and Peace and Permanent Representative of the Order to the United Nations. Deeb declared himself „100% in agreement with the aims of the FBO“.

At the public event in the evening at the Stephani-Saal in the center of Vienna about 120 visitors testified the official launch of the FBO for Europe. Minister pl. Martin Pammer, Head of the Governments Task force “Dialogue of Cultures” opened this public discussion about Spirituality and Justice.

## Workshop

# Violated Earth – violent earth. Causes and effects of human’s misbehavior and nature’s power



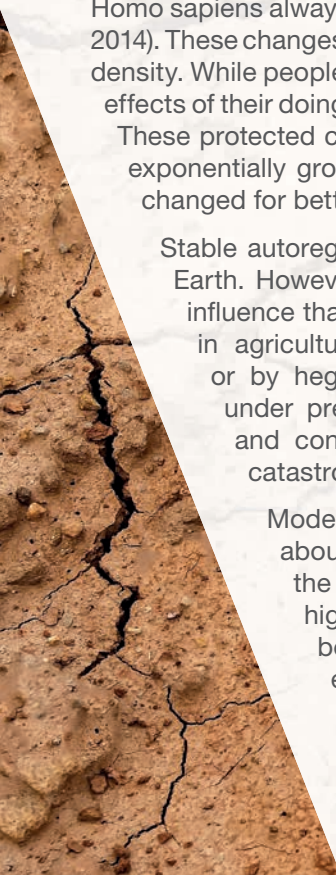
*TUM Science & Study Center Raitenhaslach, 20.03.2019 – 22.03.2019*

*Memorandum of the Institute of Earth System Preservation*

## Motivation

Climate change and loss of biodiversity rapidly approach a point where catastrophic results with massive human suffering will become unavoidable. What is to be done in this situation? The ecological burden has grown larger and larger in recent years despite the dismal prospect. Solutions are urgently needed. They need to be considered carefully, however, because of constraints and interrelations. Preservation of a liberal modern civilization is one constraint, feeding an increasing world population is another constraint. And, as to the complex interrelations, the biodiversity hazard of climate-friendly biofuel production must be taken into account.

On March 20 to 22, 2019 a workshop has been held in the premises of the TUM Science & Study Center Raitenhaslach, addressing the questions raised above. The event’s title, “Violated Earth, Violent Earth” was supposed to remind of James Lovelock’s book “The Revenge of Gaia”(2007). Of note, this book is not



about intentional “revenge.” Both Lovelock and the workshop in Raitenhaslach refer to detrimental ecological reactions manifesting as steady worsening of living conditions as well as catastrophic events.

Thus, the rapidly advancing climate change results in rising sea levels, prolonged droughts, extreme rainfalls, and destructive storms. Human activities are the major cause of that ongoing climate change. It is just the sheer number of people living on earth and striving for a decent life. They account for 36% of the entire mammalian biomass and their livestock for another 60%, leaving only 4% to wild mammals (Bar-On et al, 2018). Beyond decency, however, there also is heedless abuse of natural resources, i.e., human misconduct which drives the ecological crisis, making Lovelock’s image of “nature’s revenge” quite plausible. In fact, self-damaging already occurs on the individual level, including unhealthy nutrition, smoking, alcohol, and drug abuse or lack of physical exercise contributing to a chronic disease burden on the individuals themselves, their families, and on society as a whole.

Homo sapiens always has changed the ecosystem which he is a part of (Harari, 2014). These changes have been signed already at times of low global population density. While people did not understand the wider ecological implications and effects of their doing, ethical principles prevailed, mostly enforced by religions. These protected common goods and prohibited the disruptive power of an exponentially growing capitalistic economy. In modern societies, this has changed for better and for worse.

Stable autoregulation of ecosystems is a prerequisite of human life on Earth. However, this process has become unstable under the human influence that replaces diversity and redundancies by mono-cropping in agriculture and forestry, by mono-structures in the economy, or by hegemony in politics. Such destabilization of ecosystems under pressure of an omnipresent unrestricted hype for growth and consumption is a major reason for anthropogenic natural catastrophes.

Modern science has brought about far-reaching knowledge about the complex interrelations of the world we live in, and the processes that shape it. This understanding engenders a high level of accountability for our doings and wrong-doings because we cannot hide behind alleged ignorance about the ecological workings and failures. With the global human population approaching the eight billion mark, rising life expectancy, accelerating mobility and knowledge exchange across continents, the “responsibility question” has gained unprecedented importance.

Human society as a whole is therefore obliged to not only talk about responsibility but to formulate clear measures of how to execute it. As a heuristic for the search for the optimal measures, society's representatives should recognize that their children's "skin is in the game."

To countervail the disastrous developments, the latest report to the Club of Rome has suggested amending the rational, science-based, enlightened approach to the world with a renewed overarching "philosophy of balance" (Weizsäcker & Wijkman, 2018, 92). This philosophy addresses all aspects of human life and implies a strong sense of responsibility for the common goods, thus amounting to a "New Enlightenment" as the authors have called it.

Some people hope that such transformation might be supported by changes in human nature in the sense of epigenetic imprinting of a new, sustainable way of life. However, while human (epi) genetics does react to changing societal conditions, there is little scientific support for such specific hope. Moreover, it reminds of a recent sinister past when a "New Human" was expected to arise from biological grounds. Welcoming reactive changes is not far from initiating active transformation. In fact, strategies to shape humans genetically so that they comply with their habitats have been discussed recently in space science (Pontin, 2018). Genetic engineering as one impressive achievement in modern technology can be utilized for

Workshop "Violated Earth – Violent Earth. Causes and Effects of Human's Misbehavior and Nature's Power", March 20-22, 2019, TUM Science & Study Center Raitenhaslach  
© Institute of Earth System Preservation



good and for evil. Its potential for human self-destruction is of unprecedented fundamentality.

While we still try to come to terms with present threats, new ones already appear on the horizon. However, it seems that the process of a „New Enlightenment“ has already begun as the “Fridays for Future” initiative and some other movements suggest. People worldwide are determined to understand our world’s complex and interwoven relations; to invest in balanced, sustainable development; and to provide for a good future for all humans.


With the Anthropocene, we took control of the world – and with that full responsibility for the future. The time has come to ask and define: In which kind of world we do, and do not, want to live in the future, and what we have to do to this end?

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## Recommendations for Action

- 1. Stop Biodiversity Loss** To enable humankind’s continued existence on planet Earth, it is as important to preserve on the global scale biodiversity function as to prevent further global warming.
- 2. Avoid Tipping Points** To properly describe the Earth system, its dynamics, and changes chaos theory must be taken into account; especially when it comes to explaining the exceeding of tipping points.
- 3. Reformulate Societal Ethics** To ensure the health of planet Earth, the development of adapted social ethics must go hand in hand with technical and economic efforts to maintain global health.
- 4. Employ Artificial Intelligence** To avoid ending up existing in artificial-intelligence dominated slavery, ways must be found to utilize the new tools of the digital age to reinforce human governance of socio-technical and Earth systems.
- 5. Fight Ignorance** The diminution of human misbehavior is to be considered a cornerstone of sustainable development of society, ecology, and human health.



**6. Foster Democracy** To overcome barriers of existential relevance, humankind is well advised to orient itself towards science-based future perspectives, legitimated by democratic processes.

**7. Counter Alarming Evolution** To ensure the continuing emergence of creative and inclusive approaches to overcoming existential threats caused by climate change causing global warming, the creation of effective strategies, and their successful implementation is a must.

**8. Redefine Global Health** The human health dimension must be understood as a fundamental assumption for keeping the planet Earth our common home. This means the assurance of human physical and psychological health is a factor of equal importance to protecting biodiversity, stabilizing climate change, and respecting planetary boundaries.

**9. Facilitate Circular Economy** Based on the assumption that the environment can be considered our “second skin,” it is obvious that humankind at large needs to take full responsibility for the preservation of the ecosystem function.

**10. Shape and Create Innovation** With the risk of a complete breakdown of the Earth system at hand, a proactive approach towards shaping technology satisfying the actual needs of humanity and nature alike must be the leading principle of the “New Enlightenment.”

**11. Redefine Education** To cultivate a sustainable and adaptive form of “New Enlightenment,” a strong focus is to be placed on education which has to transfer not only factual knowledge but also fundamental principles of ethics, arts, and humanities.

**12. Embrace Vulnerability** Beyond all threats vulnerability of the Earth system and its inhabitants also is to be regarded as a fundamental openness for change and as a basic aptitude for recognizing in time where and how change of thinking and acting has to take place.

## Acknowledgements

The workshop was financially supported by a grant of the Bavarian State Ministry of Environment and Consumer Protection, the Schweisfurth Foundation, and the Büchel Group. Their contributions are gratefully acknowledged by the organizers, and the participants alike.

# VIII. NEW MEMBERS 2019



## Class I – Humanities

Peter-André Alt, Germany  
Christina Antenhofer, Austria  
Olaf Berwald, USA  
Claus Dierksmeier, Germany  
David Luft, USA

Emilio Marin, Croatia  
Biba Teržan, Slovenia  
Boštjan Marko, Slovenia  
Martin Woesler, Germany



## Class II – Medicine

Axel W. Bauer, Germany  
Marijan Bosevski, North Macedonia  
Björn Brücher, Germany  
Youssef Fares, Lebanon  
Florian Holsboer, Germany  
Ijaz S. Jamall, USA  
Miro Jakovljević, Croatia  
Francisco López-Muñoz, Spain

Barbara Maier, Austria  
Hans-Jürgen Möller, Germany  
Maximilian Moser, Austria  
Seza Özen, Turkey  
Nima Rezaei, Iran  
José Antonio Rodríguez Montes, Spain  
Charis Roussos, Greece



## Class III – Arts

Mehmed Akšamija, Bosnia and  
Herzegovina  
Anka Burić, Montenegro

Karl-Markus Gauß, Austria  
Kevin Thompson, China



## **Class IV – Natural Sciences**

Brian Berkowitz, Israel  
Bogusław Buszewski, Poland  
Zdenko Časar, Slovenia  
Jean-François Halet, France  
Beatrix C. Hiesmayr, Austria  
Reuben Jih-Ru Hwu, Taiwan  
Georg Krausch, Germany

Péter Lévai, Hungary  
Quan Li, USA  
Javier Montero, Spain  
Cristian Silvestru, Romania  
Péter G. Szalay, Hungary  
Chi Zhang, China



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Frank Decker, Germany  
Alexander Görlach, Germany  
Christian W. Haerpfer, Austria  
Bernd Huber, Germany  
Florian Huber, Austria  
Sabine Theresia Köszegi, Austria  
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Volker Kronenberg, Germany  
Christine Lohmeier, Austria

Igor Maksimtsev, Russia  
Ulrich Schlie, Germany  
Kerstin Schneider, Germany  
Xin Shi, United Kingdom  
Cristi Marcel Spulbar, Romania  
Zoran Tomić, Bosnia and  
Herzegovina  
Jurij Toplak, Slovenia  
Alica Vančová, Slovakia  
Ulrich Widmaier, Germany



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Barbara D. Boyan, USA  
Zhe Chen, Denmark  
Dragan Čović, Bosnia and  
Herzegovina  
Gerhard A. Holzapfel, Austria  
Vistasp Karbhari, USA

Gilles Lubineau, Saudi Arabia  
Asad M. Madni, USA  
Matilde Santos, Spain  
Pol D. Spanos, USA  
George Tchobanoglous, USA  
Hong Yan, China  
Guomo Zhou, China



## **Class VII – World Religions**

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Jörg Franz Ernesti, Germany  
Daniel Krochmalnik, Germany  
Givi Lomidze, Austria

Manfred Oeming, Germany  
Lenart Škof, Slovenia  
Markus Vogt, Germany



## **Class VIII – Corporate & Public Governance**

Markus Krall, Germany  
Antonio Nuñez y García-Sauco, Spain

Sibel Yamak, United Kingdom





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