Scientific Advice Mechanism
to the European Commission

Academia Europaea
19 88

The Academy of Europe Cardiff Knowledge Hub

AI and academic publishing: What does the future hold for authors, readers and publishers?

13th May | 4:00 to 5:00pm CEST (3:00 to 4:00pm UK time) | Zoom

16.00 Welcome and introductions
Prof **Ole H Petersen** CBE FRS MAE,
Director, Academia Europaea Cardiff Knowledge Hub

16.10 Short presentations from the panel
* Prof **Nicole Grobert** MAE, Chair of the Group of Chief Scientific Advisors
* Dr **Anita de Waard**, Vice-President, Research Collaborations, Elsevier
* Prof **Alberto Melloni**, Member of the Group of Chief Scientific Advisors
* Dr **Kiera McNeice**, Research Data Manager, Cambridge University Press
* Prof **Paul Groth**, Professor of Informatics, University of Amsterdam,
  Member of the SAPEA Working Group on AI in Science

16.30 Q&A
* Use the Q&A to post concise questions to our panellists
* This webinar will be recorded and made available after the event

17.00 Close

Scientific Advice Mechanism
to the European Commission

April 2024
SAPEA evidence review report

Successful and timely uptake of artificial intelligence in science in the EU

European Commission
Scientific Advice Mechanism

Successful and timely uptake of
Artificial Intelligence in science in the EU

Group of Chief Scientific Advisors

Independent Expert Report

Scientific Opinion No. 15
March 2024

Ole Petersen

Nicole Grobert

Robert-Jan Smits

Arnold Burgen

Eva Kondorosi

Sierd Cloetingh

ACADEMIA EUROPAEA
CARDIFF KNOWLEDGE HUB

Academia Europaea (*The Academy of Europe*)
https://aecardiffknowledgehub.wales/

President
Hub
Headquarters
Information Centre

Helsinki
Bergen
Wroclaw
Cardiff   London
Munich   Budapest
Graz
Barcelona
Tbilisi

ACADEMIA EUROPAEA

- Founded in 1988

- Now has more than 5000 members, including more than 80 Nobel laureates

- Members are leading scientists and scholars, elected by their peers

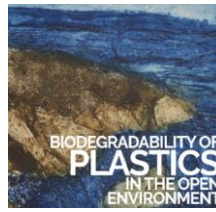- Operates through a network of hubs across Europe, including Cardiff

SA✶PEA

(Science **A**dvice for **P**olicy by **E**uropean **A**cademies**)**

European Commission

ACADEMIA EUROPAEA
CARDIFF KNOWLEDGE HUB

https://scientificadvice.eu/

Academia Europaea 19 88 THE ACADEMY OF EUROPE

FOOD FROM THE OCEANS

MAKING SENSE OF SCIENCE
FOR POLICY UNDER CONDITIONS OF COMPLEXITY AND UNCERTAINTY

BIODEGRADABILITY OF PLASTICS IN THE OPEN ENVIRONMENT

Scientific Advice Mechanism to the European Commission
April 2024
SAPEA evidence review report
Successful and timely uptake of artificial intelligence in science in the EU

ALLEA ALL European Academies
Euro-CASE
YASAS
FEAM

The European Commission's *Scientific Advice Mechanism* provides independent science advice to *European Commissioners* to inform their decision-making

First Meeting of the Group of *Chief Scientific Advisers* with the *SAPEA Board*
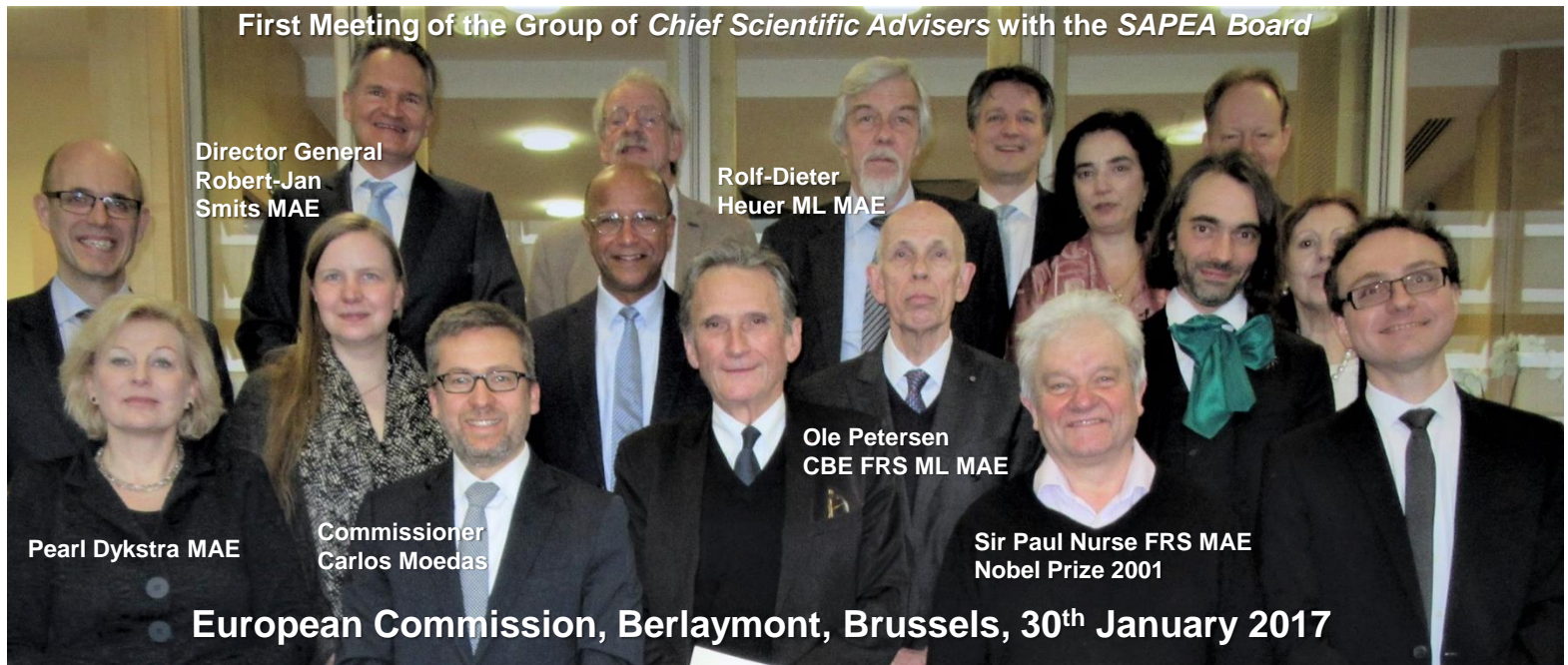
Director General Robert-Jan Smits MAE

Rolf-Dieter Heuer ML MAE

Ole Petersen CBE FRS ML MAE

Pearl Dykstra MAE

Commissioner Carlos Moedas

Sir Paul Nurse FRS MAE Nobel Prize 2001

European Commission, Berlaymont, Brussels, 30th January 2017

Scientific Advice Mechanism
to the European Commission

The Commission's Chief Scientific Advisors

https://scientificadvice.eu/about-us/group-of-chief-scientific-advisors/about-the-advisors/

Chair

Group of Chief Scientific Advisors

Nicole Grobert MAE

Alberto Melloni

- **Seven highly qualified experts**
- Backgrounds in various disciplines, both social and natural sciences

- **Make policy recommendations** in response to requests for advice

- Recommendations based on publicly available scientific evidence

Artificial Intelligence: the study and development of computer systems that can copy intelligent human behaviour

György Buzsaki MAE
New York University
(Brain Prize 2011)

'The search for
Neural Syntax'

"**Our species is distinct and special in one major respect, the ability to externalize brain function**. With language and its material versions, we managed to create a super large knowledge base. In the process, the individual share of the ever-increasing total knowledge of humankind is exponentially decreasing. **Every other primate acquires as much knowledge during his/her lifetime as the knowledge of all primates, give or take. But think of us.** Almost the entire knowledge of humankind is now available (somewhere) in electronic form, externalized from the individual brains. But the value of such a huge library is only as good as its searchability. Our personalized search engine, the hippocampus, is a good librarian for the brain and effectively assists us to navigate in the vast knowledge base stored in the neocortex, **separating the irrelevant from the important in a matter of a few search cycles.**"

There are many challenges ahead of us

1825
Hungarian Academy of Sciences

In January and February 2024, Hungarian Research Network Institutes were evaluated by an international committee. Based on site visits, presentations, and extensive comments from panel members, AI was used to bring everything together and to formulate final reports and recommendations. It was an interesting experiment.

nature
- **EDITORIAL**
- 06 March 2024

Why scientists trust AI too much — and what to do about it

In a Perspective article[2] published in *Nature* this week, social scientists say that AI systems pose a further risk: that researchers envision such tools as possessed of superhuman abilities when it comes to objectivity, productivity and understanding complex concepts. The authors argue that this put researchers in danger of overlooking the tools' limitations, such as the potential to narrow the focus of science or to lure users into thinking they understand a concept better than they actually do.

G7 Science Academies: Statement on AI for the 2024 G7 Summit

1652 — German National Academy of Sciences Leopoldina

1603 — Academia dei Lincei

1660 — The Royal Society

Artificial Intelligence (extract of statement):
The advancements in the development of artificial intelligence offer numerous opportunities for the economy, science, and societies. **However, this phenomenon is also associated with risks, which must be monitored and controlled.** The science academies of the G7 states propose clear framework conditions for data protection and copyright issues. Users of AI systems should be transparently informed about the usage of their data as well as about the functional mechanisms and limits of artificial intelligence. **The traceability of the data used in AI models is of critical importance.** Education and public discourse can help societies better understand the chances, risks, and evaluation of AI systems.

AI and academic publishing: What does the future hold for authors, readers and publishers?

13th May | 4:00 to 5:00pm CEST (3:00 to 4:00pm UK time) | Zoom

16.00 Welcome and introductions
Prof **Ole H Petersen** CBE FRS MAE,
Director, Academia Europaea Cardiff Knowledge Hub

16.10 Short presentations from the panel
* Prof **Nicole Grobert** MAE, Chair of the Group of Chief Scientific Advisors
* Dr **Anita de Waard**, Vice-President, Research Collaborations, Elsevier
* Prof **Alberto Melloni**, Member of the Group of Chief Scientific Advisors
* Dr **Kiera McNeice**, Research Data Manager, Cambridge University Press
* Prof **Paul Groth**, Professor of Informatics, University of Amsterdam,
  Member of the SAPEA Working Group on AI in Science

16.30 Q&A
* Use the Q&A to post concise questions to our panellists
* This webinar will be recorded and made available after the event

17.00 Close