

# Creation of a Public European Medicines Infrastructure: Purpose and feasibility

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Wednesday, 28 September 2022, 15:00 - 17:00

Room SPAAK 7C50 & online via Interactio

**Participants' booklet**

Available at <https://www.europarl.europa.eu/stoa/en/events/details/creation-of-a-public-eu-pharma-r-d-infra/20220610WKS04282>

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## 1. Programme

### Creation of a Public European Medicines Infrastructure: Purpose and feasibility

15.00 - 15.10	Welcome remarks and introductory statement Patrizia TOIA, MEP and STOA Panel member
15.10 - 15.20	Study presentation: <b>'European pharmaceutical research and development: Could a public infrastructure overcome market failures?'</b> Massimo FLORIO, Professor of Public Economics, University of Milan, Italy
15.20 - 16.20	Roundtable debate <i>Introduction and moderation by Karin SIPIDO, Head of Experimental Cardiology, KU Leuven</i>  Irene NORSTEDT, Director, Directorate-General for Research and Innovation (RTD), EC Sylvain GIRAUD, Head of Unit, Directorate-General for Health and Food Safety (SANTE), EC Giulia DEL BRENNNA, Head of Unit, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (GROW), EC Rolf APWEILER, Director, European Molecular Biology Laboratory (EMBL) Rosa CASTRO, Senior Policy Manager, European Public Health Alliance (EPHA) Salah Dine CHIBOUT, Chair of the Research & Innovation Strategy Group, European Federation of Pharmaceutical Industries and Associations (EFPIA) Jacques DEMOTES, Director-General, European Clinical Research Infrastructure Network (ECRIN) Emily ERBELDING, Director, Division of Microbiology and Infectious Diseases, NIAID/NIH Els TORREELE, Policy Associate, UCL Institute for Innovation and Public Purpose
16.20 - 16.50	Q&A session
16.50 - 17.00	Closing remarks Patrizia TOIA, MEP and STOA Panel member

## 2. Introduction

While great progress has been made in recent years in the development of public health within the European Union (EU), the Covid-19 pandemic brought to light existing vulnerabilities in the European health response mechanism, from Member State uncoordination to difficulties in manufacturing and accessing medicines, to EU research fragmentation and differences between corporate R&D choices and public health priorities.

On 2 June 2020, the European Commission published its [roadmap](#) for a pharmaceutical strategy for Europe, fostering access to affordable high-quality, effective and safe medicines and supporting innovation in the EU pharmaceutical industry. With its [resolution](#) of 17 September 2020 on shortages of medicines, the European Parliament called on the Commission and Member States to *'examine the possibility of creating one or more European non-profit pharmaceutical undertakings which operate in the public interest to manufacture medicinal products'*. The December 2021 Council [conclusions](#) suggested examining Parliament's resolution to ensure the supply of medicinal products affected by market failures.

With these objectives in mind, a recent [STOA study](#) investigated the feasibility of creating a large-scale European public infrastructure aimed at addressing vulnerabilities linked to the research, development, production and distribution of medicines. This workshop will bring together experts from biomedical research, representatives of the pharmaceutical industry, and EU and international public health experts to discuss the state-of-play of the EU's current pharmaceutical strategy and explore policy options for strengthening EU preparedness and response, including the feasibility of creating an advanced EU pharmaceutical infrastructure for the research and development of novel medicines and treatments.

### 3. Welcome and opening

#### 3.1. Patrizia TOIA, MEP and STOA Panel member



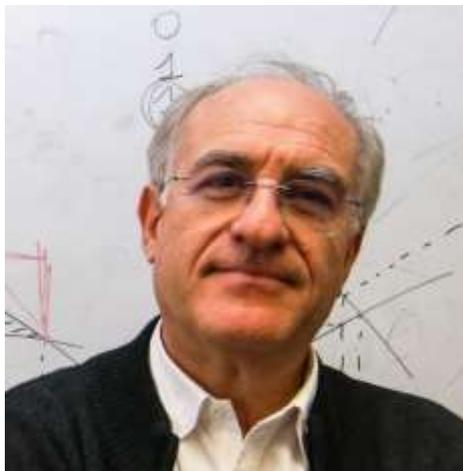
[Patrizia TOIA](#) was born in Pogliano Milanese (Milan). She graduated in Political Science from the University of Milan. She worked as Director of the Planning Service at Lombardy Region. She served as regional councillor, Member of the Chamber of Deputies and of the Italian Senate, as well as Undersecretary of State for Foreign Affairs and Minister for European Affairs and for Relations with Parliament.

She was Member of the Chamber of Deputies and in 1996 she was elected to the Senate of the Republic. She held various institutional positions: Undersecretary of State for Foreign Affairs with responsibility for Latin America, Asia and Oceania, Relations with the United Nations, Human Rights, Migration and Italians abroad. In 1999 she was appointed Minister for European Affairs and Minister for Relations with Parliament.

In 2004 she was elected to the European Parliament, and was re-elected in 2009, 2014 and 2019. Member of the Group of the Progressive Alliance of Socialists and Democrats ([S&D](#)), she is Vice-Chair of the Committee on Industry, Research and Energy ([ITRE](#)). She is also substitute member of the Committee on Development ([DEVE](#)) and of the Committee on Transport and Tourism ([TRAN](#)).

## 4. Speakers

### 4.1. Massimo FLORIO, Professor of Public Economics, University of Milan



[Massimo FLORIO](#) is Professor of Public Economics, University of Milan, Jean Monnet Chair and formerly Head of the Economics Department. His research interests include privatisation and public enterprise, social cost benefit analysis of public investment, EU regional and industrial policy, economics of science and innovation. He has coordinated for over twenty years editions of the European Commission's '[Guide of cost-benefit analysis of investment projects](#)' and led evaluation studies for the European Commission, European Investment Bank, European Parliament, OECD, CERN and the Italian Space Agency. His book 'Investing in Science. '[Social cost-benefit analysis of research infrastructures](#)' was published in 2019. A new book on '[The Privatisation of Knowledge](#)' deals with social justice and EU policies in biomedical research, climate change and big data governance. Florio has recently led the STOA study '[European pharmaceutical research and development: Could a public infrastructure overcome market failures?](#)'.

#### Keynote message

The STOA study, based on consultation with over 60 international health experts, concludes that we lack an EU-wide health research infrastructure in critically-important areas, such as infectious diseases, age-related conditions, genetic conditions and poverty-correlated health risks.

The US have federal institutions in this area, such as the National Institutes of Health ([NIH](#)) and the Biomedical Advanced Research Authority ([BARDA](#)). They have a clear advantage compared to the EU. The proposed European Medicines Infrastructure could adopt a selective research and development (R&D) portfolio strategy, exclusively in the public interest, looking at underinvested areas, across the full drug cycle.

While the recently-created Health Emergency Preparedness and Response Authority ([HERA](#)) is part of the European Commission and focuses on health emergency procurement and coordination, our study suggests that the EU needs a large-scale research infrastructure where governance and management safeguard scientific communities and public health actors. The European Organization for Nuclear Research ([CERN](#)) and the European Molecular Biology Laboratory ([EMBL](#)) are examples of excellent research infrastructures with a range of possible designs and innovation pathways. A European Medicines Infrastructure could have ambitions similar to those of the European Space Agency ([ESA](#)), with a yearly budget in the range of 4-7 billion Euro and a long-term commitment to deal with health challenges by investing in frontier open science, in the public interest, with a new approach to intellectual property.

## 4.2. Karin SIPIDO, Head of Experimental Cardiology, KU Leuven



[Karin SIPIDO](#) is Professor of Medicine and Head of Experimental Cardiology at the [Department of Cardiovascular Sciences at KU Leuven](#). She is a medical doctor, trained in cardiology, and her main activity is translational research. Her interest is rhythm disturbances and heart failure, identifying cellular and molecular mechanisms, in a translational perspective. Her [research](#) is internationally recognized, she holds several editorial positions and is an elected member of the Academia Europaea. She is member of the Ethics Committee Research at UZ Leuven.

She serves as advisor to several international funding bodies and currently is a member of the Board of trustees of the national [Fund for Scientific Research Flanders](#). She is a member of the Scientific Advisory Board of ORE, the **European Commission's Open Research Platform**.

She takes an active interest in research policy, serving in various positions at KU Leuven, at European and international level. She was member of the board of the European Society of Cardiology, and led the Council for Basic Cardiovascular Sciences. She was a founding member and President of the [BioMed Alliance in Europe](#). From 2015-2020 she chaired the **European Commission's Scientific Panel for Health (SPH)**, a science-led expert group based on the provisions of Horizon2020, tasked with helping to achieve better health and wellbeing for all, addressing barriers and hurdles in innovation and identifying long-term trends and strategic priorities.

At KU Leuven, she leads an academic research project on research policies, exploring evolution of strategic funding and societal impact. For STOA, she has prepared a report on coherence of health research funding in the EU.

### Keynote message

Over time, EU investments in health research have grown, but they suffer from [fragmentation](#). Synergy between strategies at different levels could improve. Policies can take inspiration from successful health research organization and policies inside and outside of the EU, for more coherence and throughput to translation and implementation. Health research needs strong leadership to engage for global health and the challenges of the interconnectedness of health with environmental and climate challenges, and durable economic development.

### 4.3. Irene NORSTEDT, Director, DG for Research and Innovation (RTD), European Commission



[Irene NORSTEDT](#) works at the European Commission, where she is the Director responsible for the People Directorate within the DG for Research and Innovation ([RTD](#)). The People Directorate works towards the development of a healthy, safe, more equal, free, open and fair society, where the voices of citizen and different communities are better heard.

Irene has been at the European Commission since 1996, and has worked on various aspects of research in life sciences and particular health research throughout her career in the Commission. Areas of particular interest have been the set up of the public private partnership the Innovative Medicines Initiative ([IMI](#)) and the International Rare Diseases Research Consortium ([IRDiRC](#)). Prior to joining the European Commission, she worked for the Swedish life science company Biacore AB and at the Swedish embassy in London. Irene studied at the Royal Institute of Technology in Stockholm and University of Sussex, and holds a Master of Science (MSc) in Chemical Engineering.

#### 4.4. Sylvain GIRAUD, Head of Unit, Directorate-General for Health and Food Safety (SANTE), European Commission



Sylvain GIRAUD is the Head of Unit Medical products: quality, safety and innovation, in the Directorate General for Health and Food Safety ([DG SANTE](#)), at the European Commission.

The unit is in charge of EU level policy developments on quality, availability and affordability of medicines, and supervises important aspects of the implementation of EU legislation, the implementation of the [Pharmaceutical Strategy for Europe](#) and the coordination of international cooperation on medicines policy. In previous Head of Unit positions in DG SANTE in the last 10 years, Sylvain dealt with Health Systems, global health and EU health policy coordination.

#### 4.5. Giulia DEL BRENNNA, Head of Unit, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (GROW), European Commission



Giulia DEL BRENNNA is Head of Unit “Strategy and regulation: single market and industrial policy” in the Directorate General for Internal Market, Industry, Entrepreneurship and SMEs ([DG GROW](#)).

A graduate of Sciences Po Paris, she holds a Master in European Studies from ICADE Madrid, and is an Official of the European Commission since 1996. Among other functions, she has been assistant to the Director General of DG Enterprise and Industry (2005 to 2008), Head of the Pharmaceutical, Food and Biotechnology industries Unit (2008 to 2011), advisor responsible for Administration and Public Health issues in the Task Force for Greece (2011 to 2014), and Deputy Head of the Cabinet of Commissioner Carlos Moedas – Research, Science and Innovation (2014 to 2019). During the Covid-19 crisis, she advised the [Clearing House for medical equipment](#) and the Task Force for up scaling of Covid-19 vaccines production.

## 4.7. Rolf APWEILER, Director, European Molecular Biology Laboratory (EMBL)



[Rolf APWEILER](#) is Director of EMBL's European Bioinformatics Institute ([EMBL-EBI](#)), together with Ewan Birney. He was previously Joint Associate Director, after many years of leading protein resources such as [UniProt](#) and [InterPro](#). Rolf has made a major contribution to methods for the automatic annotation of proteins. He has spearheaded the development of standards for proteomics data, and his teams have maintained major collections of protein identifications. He was also Director of [OpenTargets](#) and is now leading the efforts of EMBL-EBI around the European Covid-19 Data Platform. Rolf received his PhD from the University of Heidelberg in 1994, and has been at EMBL since 1987. His work **was recognised by the Human Proteomics Organisation's "Distinguished Achievement Award in Proteomics"** in 2004. He was President of the [Human Proteome Organisation](#) from 2007-2008. Rolf served over many years on Editorial and Scientific Advisory Boards.

### Keynote message

The European Bioinformatics Institute (EMBL-EBI) maintains **the world's most comprehensive range** of freely available and up-to-date molecular data resources. Open and freely accessible bioinformatics research infrastructure is essential for the modern life science research in Academia and Industry. Some recent examples of innovative EMBL-EBI partnerships based on our open and freely accessible Bioinformatics Research Infrastructure:

- Open Targets is an innovative, large-scale, multi-year, public-private partnership that uses human genetics and genomics data for systematic drug target identification and prioritisation.
- The [European Covid-19 Data Platform](#) facilitates data sharing and analysis in order to accelerate coronavirus research. **The European Commission and EMBL's European Bioinformatics Institute (EMBL-EBI)**, together with EU Member States and research partners such as [ELIXIR](#), operate a European Covid-19 Data Platform that enables the rapid collection and data sharing of research data from different sources for European and global research communities.
- [AlphaFold](#), a state-of-the-art AI system developed by [DeepMind](#), is able to computationally predict protein structures with unprecedented accuracy and speed. These predictions are free and openly available to the global scientific community in partnership with EMBL-EBI, opening up new and exciting research avenues to dramatically deepen our understanding of human health, disease and our environment, with implications for areas like drug design and sustainability.

## 4.8. Rosa CASTRO, Senior Policy Manager, European Public Health Alliance (EPHA)



[Rosa CASTRO](#) is the Senior Policy Manager for Healthcare Delivery and Networks' Coordinator at the European Public Health Alliance ([EPHA](#)). Among other activities, she coordinates the [European Alliance for Responsible R&D and Affordable Medicines](#) and the [EU4Health Civil Society Alliance](#) and represents EPHA in the [Patients' and Consumers Working Party](#) at the European Medicines Agency ([EMA](#)) and on the European Health Emergency Preparedness and Response Authority ([HERA](#)) Civil Society Advisory Forum. She obtained a PhD in European Law and Economics, and an MA in Bioethics and Science Policy, wrote a book and articles on patents and health, was a postdoctoral Fellow at the European University Institute, and at Duke University, USA, and lectured on intellectual property and health law. Before joining EPHA in 2021, she also worked in Brussels as Senior Scientific Policy Officer at the Federation of European Academies of Medicine ([FEAM](#)) and as Senior Policy Advisor at a public policy consultancy.

### Keynote message

This intervention will highlight the need for the EU to assume leadership and coordinate a public sector, end-to-end, research infrastructure as well as enable better coordination amongst existing R&D efforts. This new activity should include but not limited to the work of its recently created Health Emergency Preparedness and Response Authority (HERA). This argument has been put forward by the European Public Health Alliance (EPHA) along with several civil society organizations representing patients, consumers, healthcare professionals and health NGOs. This intervention will highlight the need for a public-health driven and patient-centric approach to biomedical R&D and pharmaceutical policies. As highlighted by the study under discussion, such EU biomedical R&D public infrastructure should not be limited to emergencies and should cover areas with low commercial profitability, such as the development of new antibiotics or the manufacturing of medicines affected by shortages. This would require a radical change in the way of thinking about biomedical R&D and pharmaceutical incentives. Structural problems call for structural solutions. Problems such as the lack of transparency of pharmaceutical R&D and production costs, as well as the mismatch and lack of incentives for private investors in priority public health areas cannot be solved through the creation of market incentives. Market failures such as the lack of development of new antibiotics are evidence of this.

## 4.9. Salah Dine CHIBOUT, European Federation of Pharmaceutical Industries and Associations (EFPIA)



[Salah-Dine CHIBOUT](#) is Global Head of External Partnerships and Head of Oncology Therapeutic Area in Preclinical Safety for Novartis Institutes for BioMedical Research ([NIBR](#)). In this role since 2019, he is responsible for the Oncology portfolio's safety strategy, from target identification to market access. Salah-Dine is responsible for the outsourcing of preclinical safety activities.

Salah-Dine has more than 28 years of experience in drug development. He joined the Toxicology Department at Sandoz in 1990 and since then he has had held roles of increasing responsibilities at Sandoz and Novartis. He created the Discovery and Investigative Safety group, being responsible for investigating all drugs' side effects, from discovery to market. From 2008 to 2010, he was Deputy Head of Translational Science in Europe. From 2010 to 2019, Salah-Dine was leading the Therapeutic Areas in Preclinical Safety. In this role, he was responsible for defining all regulatory required toxicity studies, generating the relevant regulatory documents and ensuring efficient interactions with health authorities. In addition, Salah Dine is leading the External Partnerships department, being responsible for the outsourcing of toxicology activities and interactions with academics for preclinical safety.

Salah-Dine is responsible for the [IHI](#) public-private partnerships at Novartis. He represents Novartis at the European Federation of Pharmaceutical Industries and Associations ([EFPIA](#)) Science and Innovation Board and is the Chair of its Research & Innovation Strategy Group (RIS).

Salah-Dine holds a PhD in Molecular Immunology from the Biozentrum in Basel, Switzerland.

### Keynote message

Current challenges in R&D can only be solved when all stakeholders collaborate together, each of them playing a key role.

Public and private research institutions are complementary to each other, especially when it comes to early vs late-stage research. And a good example of public-private partnerships in R&D is the Innovative Medicines Initiative (IMI) and its successor, the Innovative Health Initiative ([IHI](#)), where all stakeholders work together towards the same objectives.

#### 4.10. Jacques DEMOTES, Director-General, European Clinical Research Infrastructure Network (ECRIN)



Jacques DEMOTES, MD-PhD, is a neurologist, professor of cell biology, and since 2014 Director General of the European Clinical Research Infrastructure Network ([ECRIN-ERIC](#)), the European Strategy Forum on Research Infrastructures ([ESFRI](#)) roadmap supporting multinational clinical research in Europe. With headquarters based in Paris and partners located in each member and observer country, ECRIN acts as a distributed infrastructure providing operational support to the planning, design and management of multinational trials, while contributing to the development of new clinical research tools, partnerships and methodologies.

##### Keynote message

ECRIN has been participating in adaptive platform trials, before and during the Covid-19 outbreak, whereby independent, non-commercial sponsors develop master protocols and conduct large-scale multi-arm trials to test multiple treatments or vaccines in a given medical condition. This experience may contribute to the development of innovation pipelines (and repurposing pipelines as well) where a public infrastructure would contribute, as an independent sponsor, to the clinical development of new vaccine or therapeutic solutions.

#### 4.11. Emily ERBELDING, Director, Division of Microbiology and Infectious Diseases, NIAID/NIH



Emily J. Erbeling is an American physician-scientist. She is the director of the Division of Microbiology and Infectious Diseases at the National Institute of Allergy and Infectious Diseases (NIAID). Erbeling was previously deputy director of the Division of AIDS at NIAID. She was a faculty member at Johns Hopkins School of Medicine and served as director of clinical services for the Baltimore City Health Department STD/HIV program.

## 4.12. Els TORREELE, Policy Associate, UCL Institute for Innovation and Public Purpose



[Els TORREELE](#) is a health innovation and socio-economic justice researcher and advocate, focusing on transforming medical innovation to address priority health needs and ensure equitable access to knowledge and technologies. A bio-engineer and PhD from the Vrije Universiteit Brussel ([VUB](#)), for over 20 years she has combined medical R&D work, policy research, and advocacy at Brussels University, [Médecins Sans Frontières](#), [Drugs for Neglected Diseases](#) initiative, [Open Society Foundations](#) and is now Visiting Fellow at the [Institute for Innovation and Public Purpose](#), University College London. A recent [Rockefeller Bellagio Centre](#) resident (March 2022), she's also an Honorary Science Fellow at the VUB, author on over 50 international journal [publications](#), and regular contributor to the societal debate through media and social media ([@ElsTorreele](#)).

### Keynote message

Covid-19 once again exposed the many ways in which the current health innovation ecosystem is not fit for purpose to deliver the needed health technologies to address public health challenges, including pandemics.

Thanks to massive public support throughout the R&D value chain from basic research to clinical trials to advance market commitments, companies were able to bring to market multiple effective vaccines in less than a year, a formidable achievement. However the highly unequal global distribution and access resulting from monopoly control over these vaccine technologies illustrates the need to redesign the pharmaceutical R&D ecosystem to effectively respond to public health objectives. This must incorporate rules and policies to deliberately govern the collaboration between public and private sectors including finance, ownership, incentives and reward towards health innovation for the common good, not private profit, and will require strong public leadership.

## 5. About STOA

### 5.1. Mission

The Panel for the Future of Science and Technology ([STOA](#)) forms an integral part of the structure of the European Parliament. Launched in 1987, STOA is tasked with identifying and independently assessing the impact of new and emerging science and technologies.

The goal of its work is to assist, with independent information, the Members of the European Parliament (MEPs) in developing options for long-term, strategic policy-making.

The STOA Panel

The STOA Panel consists of 27 MEPs nominated from eleven permanent parliamentary committees: Agriculture & Rural Development ([AGRI](#)), Culture & Education ([CULT](#)), Employment & Social Affairs ([EMPL](#)), Environment, Public Health & Food Safety ([ENVI](#)), Internal Market & Consumer Protection ([IMCO](#)), International Trade ([INTA](#)), Industry, Research & Energy ([ITRE](#)), Legal Affairs ([JURI](#)), Civil Liberties, Justice and Home Affairs ([LIBE](#)), Regional Development ([REGI](#)) and Transport & Tourism ([TRAN](#)).

[Eva KAILI](#) is the European Parliament Vice-President responsible for STOA for the second half of the 9<sup>th</sup> parliamentary term. The STOA Chair for the second half of the 9<sup>th</sup> parliamentary term is [Christian EHLE](#), with [Ivo HRISTOV](#) and [Ivars IJABS](#) elected as 1st and 2nd Vice-Chairs, respectively.

The STOA approach

STOA fulfils its mission primarily by carrying out science-based projects. Whilst undertaking these projects, STOA assesses the widest possible range of options to support evidence-based policy decisions. A typical project investigates the impacts of both existing and emerging technology options and presents these in the form of studies and options briefs. These are publicly available for download via the [STOA website](#).

Some of STOA's projects explore the long-term impacts of future techno-scientific trends, with the aim to support MEPs in anticipating the consequences of developments in science. Alongside its production of 'hard information', STOA communicates its findings to the European Parliament by organising public events throughout the year. STOA also runs the MEP-Scientist Pairing Scheme aimed at promoting mutual understanding and facilitating the establishment of lasting links between the scientific and policy-making communities.

Focus areas

STOA activities and products are varied and are designed to cover as wide a range of scientific and technological topics as possible, such as artificial intelligence, blockchain, 5G, genetic engineering, antimicrobial resistance, internet addiction, face recognition, pollution, sustainable agriculture, Covid-19 and health in general.

These activities are clustered within three main thematic areas: Artificial intelligence & other disruptive technologies, The new **Green Deal**, and **Quality of life**. In addition, STOA's work addresses four cross-cutting policy areas: Science, technology and innovation; Societal and ethical challenges; Economic challenges; and Legal challenges.

## ESMH

The European Science-Media Hub ([ESMH](#)), operating under the political responsibility of the STOA Panel, is a platform to promote networking, training and knowledge sharing between the European Parliament, the scientific community and the media. The ESMH creates a network among policy-makers, scientists and media involving science, academia, educational and research entities, and professional associations of journalists and scientists.

For journalists and media representatives, the ESMH organises training sessions and workshops on current technological developments, both as subjects of their reporting and as means of facilitating their work. Via media monitoring and media intelligence tools, the ESMH follows the most popular topics in the field of science and technology on different platforms including journals, newspapers and social media.

The ESMH makes information available to journalists, other media and citizens about new scientific developments, as well as about scientific topics that attract media attention, and promotes information based on evidence.

## Centre for AI (C4AI)

To intensify its activities in the field of artificial intelligence (AI), STOA has launched its Centre for AI ([C4AI](#)). C4AI was established by decision of the STOA Panel on 19 December 2019 and was announced at the high-level STOA workshop '[The Future of Artificial Intelligence for Europe](#)', which took place on 29 January 2020 at the European Parliament in Brussels.

Within the context of STOA and based on decisions of the STOA Panel, C4AI produces studies, organises public events and acts as a platform for dialogue and information exchange on AI-relevant topics within the Parliament and beyond. In particular, it provides expertise on the possibilities and limitations of AI and its implications from an ethical, legal, economic and societal perspective. Through these activities, C4AI aims to contribute to the quality and coherence of discussion and policy-making as the EU seeks to coordinate its efforts and influence global AI standard-setting.

## 5.2. STOA Panel members

	Panel Member	Committee		Panel Member	Committee
	Eva KAILI (S&D, EL) <b>EP Vice-President</b> <b>STOA Bureau member</b>			Rosa D'AMATO (Greens/EFA, IT)	<b>REGI</b>
	Christian EHLER (EPP, DE) <b>STOA Chair</b> <b>STOA Bureau member</b>	<b>ITRE</b>		Jakop DALUNDE (Greens/EFA, SV)	<b>TRAN</b>
	Ivo HRISTOV (S&D, BG) <b>1st STOA Vice-Chair - STOA Bureau member</b>	<b>ITRE</b>		Pietro FIOCCHI (ECR, IT)	<b>ENVI</b>
	Ivars IJABS (Renew Europe, LV) <b>2nd STOA Vice-Chair - STOA Bureau member</b>	<b>ITRE</b>		Emmanouil FRAGKOS (ECR, EL)	<b>AGRI</b>
	Atidzhe ALIEVA-VELI (Renew Europe, BG)	<b>EMPL</b>		Lina GALVEZ MUÑOZ (S&D, ES)	<b>EMPL</b>
	Adam BIELAN (ECR, PL)	<b>IMCO</b>		Maria GRAPINI (S&D, RO)	<b>TRAN</b>
	David CORMAND (Greens/EFA, FR)	<b>IMCO</b>		Martin HLAVÁČEK (Renew Europe, CZ)	<b>AGRI</b>

	Panel Member	Committee		Panel Member	Committee
	Marina KALJURAND (S&D, ET)	<b>LIBE</b>		Susana SOLÍS PÉREZ (Renew Europe, ES)	<b>ENVI</b>
	Radan KANEV (EPP, BG)	<b>EMPL</b>		Barbara THALER (EPP, AT)	<b>TRAN</b>
	Maria Manuel LEITÃO MARQUES (S&D, PT)	<b>IMCO</b>		Patrizia TOIA (S&D, IT)	<b>ITRE</b>
	Victor NEGRESCU (S&D, RO)	<b>CULT</b>		Marion WALSMANN (EPP, DE)	<b>JURI</b>
	Michèle RIVASI (Greens/EFA, FR)	<b>ENVI</b>		Pernille WEISS (EPP, DA)	<b>ITRE</b>
	Bronis ROPÉ (Greens/EFA, LT)	<b>AGRI</b>		Juan Ignacio ZOIDO ALVAREZ	<b>INTA</b>
	Jordi SOLÉ (Greens/EFA, ES)	<b>ITRE</b>	AGRI: Agriculture and Rural Development CULT: Culture and Education EMPL: Employment and Social Affairs ENVI: Environment, Public Health and Food Safety IMCO: Internal Market and Consumer Protection INTA: International Trade ITRE: Industry, Research and Energy JURI: Legal Affairs LIBE: Civil Liberties, Justice and Home Affairs REGI: Regional Development TRAN: Transport and Tourism		

## 5.3. STOA administration

Directorate-General for Parliamentary Research Services (DG EPRS)  
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Acting Director-General  
Etienne BASSOT (Acting)

Director  
Wolfgang HILLER

Head of Unit - Scientific Foresight Unit (STOA)  
Marcus SCHEUREN

Luisa ANTUNES  
Andrés GARCÍA HIGUERA  
Vasco GUEDES FERREIRA  
**Nera KULJANIĆ**  
Antonio VALE

European Science-Media Hub (ESMH)  
Svetla TANOVA, Coordinator  
Emilia BANDEIRA MORAIS  
Vitalba CRIVELLO  
Eszter FÁY  
Carolien Martina NIJENHUIS

Assistants  
Michal HUBAR  
Rachel MANIRAMBONA  
Marie-Noëlle MPOLESHA MISENGA