THE ERA ACT AND THE EU'S FIFTH FREEDOM: THE "FREEDOM OF KNOWLEDGE"

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STRUCTURE

I. Background: Modern Science and the Emergence of a European Research Area

II. The Fifth EU Freedom Concept: Content, Extension, Implementation, Justification

III. A Stronger Justification for the ERA Act: Science and Democracy

I. BACKGROUND: SCIENCE IN THE MODERN WORLD

- ***Enlightenment growth of science***: "Scientific revolution", new academies, observatories, universities, professorships, titles, journals, specialization through disciplines…
- Science is ***systematic*** (Kant, Hoyningen-Huene 2013): all areas of nature and society are studied in comprehensive, critical, and distributed ways.
- Science becomes ***"big science"*** (Weinberg 1961): Manhattan Project, NASA, ESA, CERN, HUGO, IPCC, digital humanities…
- Science as a **"system of public knowledge"** (Kitcher 2011): (1) **Accessible** to the public, (2) **useable** for public goals & values (e.g. in law, health, industry, education, political decision-making), (3) **managed** publicly (funding, science administration, ministries

I. BACKGROUND: SCIENCE IN THE MODERN WORLD

Science creates the post-industrial "knowledge society"

"The knowledgeable society is a modern phenomenon; it has inherited a body of knowledge of man, nature, and society which has been continually created and reversed throughout a history of accelerating attention to systematic investigation, despite the irregularity of the production of "great" ideas. The scientific and technological component of culture is different from all other cultural products. … it is a world-wide phenomenon, with demonstrable success in implementing whatever purposes it is applied to. All countries are devoting increasing resources to scientific investigation..."
(Lane 1966, 653)


Robert E. Lane
(1917-2017)

- BUT: Science is **funded and administered mostly by nation-states** – despite its increasingly international nature.

I. BACKGROUND:
ORIGINS OF THE EUROPEAN RESEARCH AREA

Ralph Dahrendorf (2nd EC Research Commissioner, 1973-77)





- 1973: Plan for European collaboration on nuclear physics, medicine, environment, European Science Foundation, mutual recognition of academic studies and titles…

Jacques Delors (EU Commission President, 1985-95)

- 1990: Single Market with 4 freedoms: free mobility of persons, goods, services, and capital
- Requires also a "freedom of exchanging ideas and experience":

  "How encouraging it is to see … the enthusiasm of students, teachers and businessmen who, as a result of the exchange schemes, have become active campaigners for a **fifth freedom, perhaps the most important freedom of all, the freedom to exchange ideas and experience."** (*Statement on … the Commission Policy*, 1989)



I. BACKGROUND:
ORIGINS OF THE EUROPEAN RESEARCH AREA

Philip Busquin (EU Research Commissioner, 1999-2004)



- Project of shifting from cross-border, national collaborations towards a **European Research Area** (ERA)
- 2002: Barcelona European Council sets a target for EU R&D investment to approach 3% of GDP

European
Research Area

I. BACKGROUND:
ORIGINS OF THE EUROPEAN RESEARCH AREA

Janez Potoçnik (EU Research Commissioner, 2004-2010)



- **The "freedom of knowledge"**: free mobility of knowledge, researchers, research funding, technology

  "The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encouraging it to become more competitive, including in its industry, while promoting all the research activities deemed necessary by virtue of other Chapters of the Treaties." (TFEU Art. 179 Section 1; Lisbon, 2007)

- 2007: Foundation of ERC
- Subsequent EU documents keep stating that ERA & Fifth Freedom are far from being realized

I. BACKGROUND:
ORIGINS OF THE EUROPEAN RESEARCH AREA

- Until today, ERA is just an aggregate of (interlocking) programs and agreements concerning science.
- **No regulations with direct legal force**; only directives.

- December 2026: Presentation of the **ERA Act** with 4 components:

(1) Push for the 3% funding goal (national & EU budgets)

(2) Strengthening of freedom of research/academic freedom

(3) Strengthening of equality and inclusion in science

(4) Creation of a Fifth Freedom: “Freedom of knowledge”

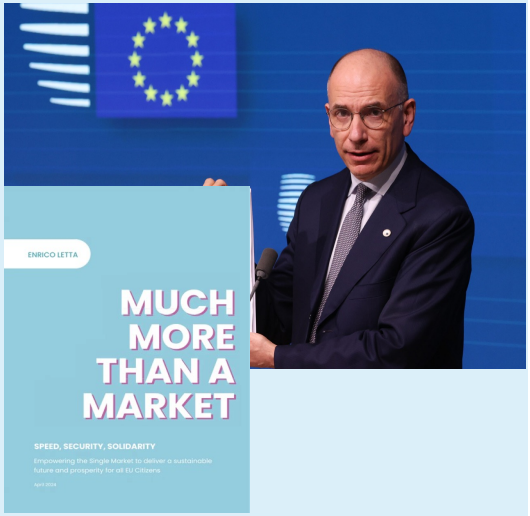
- ***Connection of (1)-(4)? Overarching idea?***

European Research Area

II. THE FIFTH FREEDOM CONCEPT: TWO CONTEXTS

1. **Science for Europe**: The **Single Market's 4 freedoms** are complemented by the Fifth Freedom, the "freedom of knowledge"

   Goal: Faster socioeconomic and political innovations (Letta, Draghi reports 2024) – overcoming the **"European paradox"** (EU Comission Green paper, 1995).



Enrico Letta

2. **Science in Europe**: **European Research Area (ERA)** = a unified region of research where national borders are irrelevant

   Goal: EU as globally best realm for science (van der Leyen, SOTUS 2025).

II. THE FIFTH FREEDOM CONCEPT: FOUR TASKS

Content (Intension): What elements should the 5th Freedom contain?

Scope (Extension): What countries should the 5th Freedom be applied to? Which persons will enjoy the rights?

Implementation: How to realize the 5th Freedom? Or: Against inefficiencies and discrimination

Justification: Why should there be a 5th Freedom? What reasons can move all agents in the European science-policy realm in the right direction?

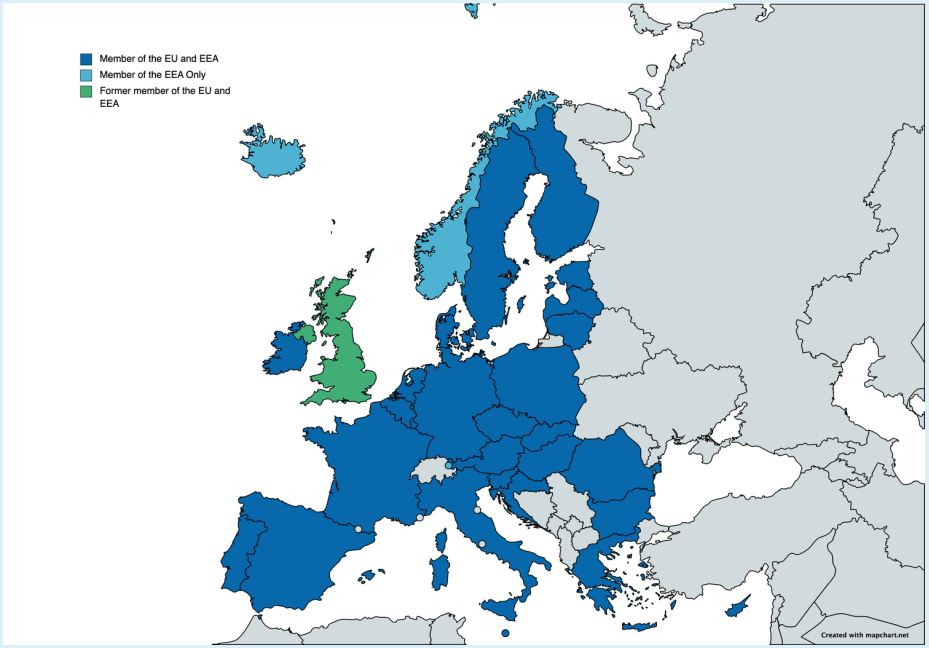
II. THE FIFTH FREEDOM CONCEPT: CONTENT

What should be freed? *Free mobility of: Knowledge, researchers, technologies, innovations, students within educational systems…?*

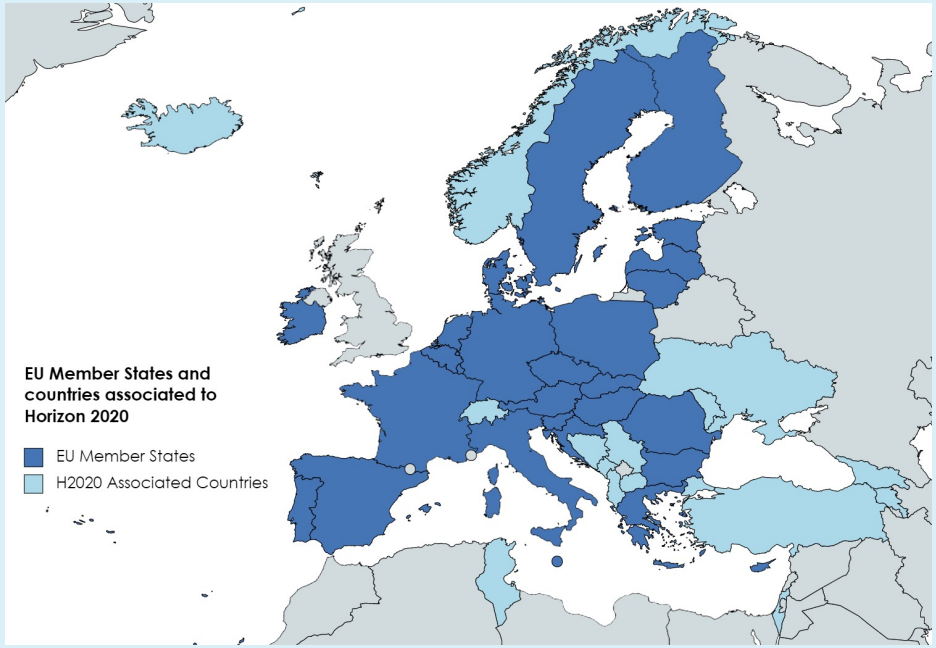
Curent common understanding

1. Analogy to the four freedoms of the Single Market: The Fifth Freedom is a special freedom, thus a **right (or set of rights)**.
2. Freedom for the **outputs** of science – open data, open access to knowledge.
3. Freedom for the **process of generating that output**: free and equal mobility of researchers. A strict, legally enforceable principle: No discrimination by nationality.
4. Research **funding (and technologies) must flow (more) freely as well?** Cf. ERC's principle of "money follows researcher".

II. THE FIFTH FREEDOM CONCEPT: SCOPE

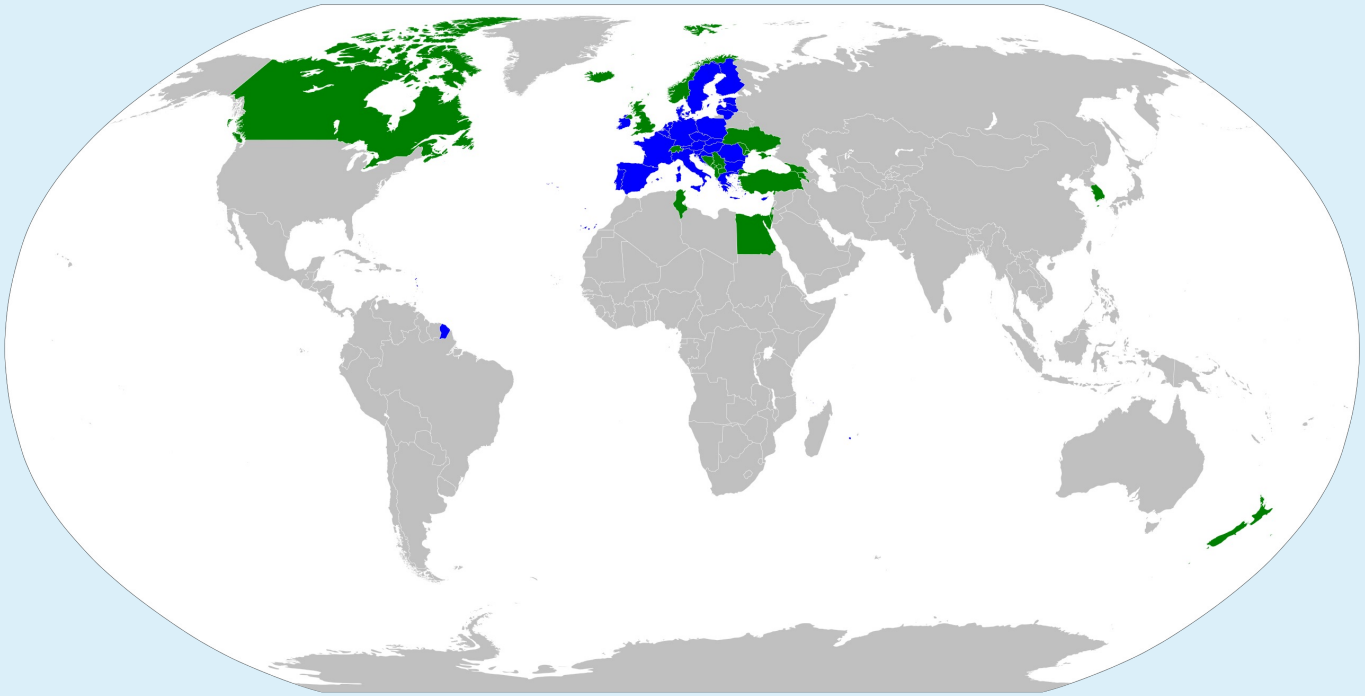


EU-27 + 3 states = EEA



Horizon 2020 Countries

II. THE FIFTH FREEDOM CONCEPT: SCOPE



Horizon Europe
Green: non-EU, associated countries

Pro- and Con-arguments?

II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

Core political task:

Reducing the “fragmentation of R&D” in EU-27 (plus x)

II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

NATIONAL BUREAUCRATIC HURDLES: PHD STUDENTS

- An e.g. Italian doctoral student coming to Spain has to obtain sworn translations of university documents and qualifications for starting her doctoral grants and positions.
- **Total costs: ca. 1.000 Euro for each foreign PhD student**
- **Not required of Spanish PhD students**

- An alternative, which some universities in the EU still require - even from EU citizens wishing to enter doctoral programs - is the Hague Apostille.

II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

NATIONAL BUREAUCRATIC HURDLES: POSTDOCS

- If a postdoctoral researcher wins a Ramón y Cajal fellowship of the Spanish Ministry for Science and Innovation and wishes to sign a contract, the Ministry requires that they present a *NIE* ("Número de Identidad de Extranjero"). They can get this number only if they can show evidence of residence in Spain; however, usually one cannot take up residence without already having a NIE. The Spanish administration offers a provisional NIE, which subsequently has to be made permanent.
- **This is unnecessary bureaucracy**. An EU passport or ID should suffice for signing contracts.
- Also: **"homologación" of PhD titles** - costs ca. 600-1.000 Euro

II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

NATIONAL BUREAUCRATIC HURDLES: JOB APPLICATIONS

- In the Italian process for the qualification of university professor - the *Abilitazione Scientifica Nazionale* - in the area of humanities and social sciences, only publications in journals listed by the Italian National Agency of Evaluation (ANVUR) are counted. The ANVUR list includes only few non-Italian journals. Many prestigious international scientific publications are left out.

- **This favors Italian over non-Italian applicants, and leads to reduced mobility.**

II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

NATIONAL BUREAUCRATIC HURDLES: JOB APPLICATIONS

- A Spanish professor, already advanced in his career, won a competition for a chair position at the Sorbonne in Paris. During the contract negotiations, the university administration explained that the 25 years the professor had already spent in the Spanish academic system would only count 50% (=12.5 years) towards his future pension benefits. He ultimately declined the position and remained in Spain.

- **This favors French over non-French applicants, and leads to reduced mobility.**

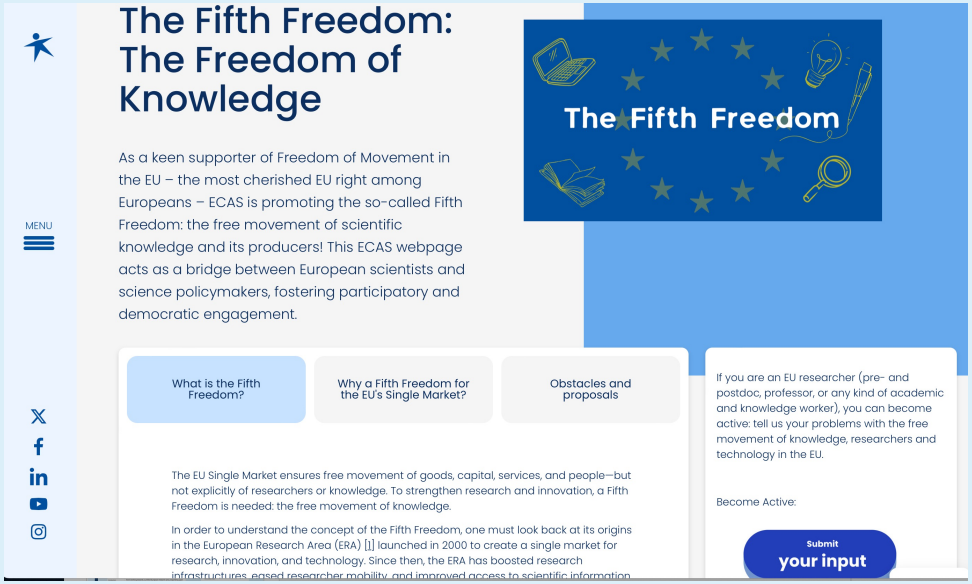
II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

- The DFG allows foreign Co-PIs within the framework of “priority programs” (SPPs), provided there is a Germany-based Co-PI, so that the funding can remain at a German institution.
- However, this option is linked to a special rule: the foreign CO-PI must prove that the individual project is *essential or necessary for the success of an entire SPP*. This rule is not justified in any way by the DFG, and no criteria for its application are given.
- **Discriminatory effect** on EU researchers not based in Germany.
- **Counterproductive for knowledge mobility and scientific progress**: national projects deprive themselves of the expertise from outside of Germany.

II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

WHAT CAN YOU DO?

ECAS WEBPAGE: AN INTERFACE BETWEEN SCIENTISTS AND SCIENCE POLICY





II. THE FIFTH FREEDOM CONCEPT: IMPLEMENTATION

- Researchers from EU/EEA countries applying for national doctoral or postdoctoral scholarships, academic jobs and grant applications face obstacles that citizens of the EU country offering the scholarship, position or grant do not face.
- This is **inefficient**. It is also often **discriminatory**. Both inefficiencies and discriminations should be identified and removed.
- **Principle of non-discriminationn:**

If a researcher/knowledge worker from country A moves to country B, they should be treated just like a researcher/knowledge worker from country B.

- If member countries, universities and scientific organizations keep upholding inefficient and/or discriminatory rules and practices, **after the ERA Act the burden of proof should be on them**.

II. THE FIFTH FREEDOM CONCEPT: JUSTIFICATION

1. The Fifth Freedom helps to accelerate scientific progress.
2. The Fifth Freedom supports the freedom of research.
3. The Fifth Freedom helps to advance economies and societies.
4. The Fifth Freedom can strengthen European integration.

While these are good reasons, the ERA Act needs a better, more unified normative framework – to justify it better to Europeans and to prevent the impression that this is an elitist or technocratic project.

Sturm 2025, *European Review*

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

Attacks against democracy threaten science

- Attacks on freedom of research (e.g. CEU move from Budapest to Vienna)
- Loss of trust in scientific expertise (e.g. populist doubts about climate change)
- Insufficiency of scientific education (citizens need to understand scientific practices and norms for democratic decision-making)

So, the knowledge society is a fact – but its promises for development and democracy are not sufficiently realized, and even threatened.

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY


EUROPEAN COMMISSION

HIGH REPRESENTATIVE OF THE UNION FOR FOREIGN AFFAIRS AND SECURITY POLICY

Brussels, 12.11.2025
JOIN(2025) 791 final

JOINT COMMUNICATION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

European Democracy Shield: Empowering Strong and Resilient Democracies

„European Democracy Shield“

„Evidence-informed policymaking ensures that institutions, debates and decision-making are rooted in factual, transparent and accountable processes and impartial data based on freedom of scientific research, fostering trust and legitimacy in governance. To guarantee effective and democratic scientific advisory processes and scientific support to public policies, it is necessary to promote adherence to the highest research ethics … It is also essential to enable the involvement and trust of citizens in science … the Commission will adopt a **Recommendation on supporting scientific evidence and its use in public policymaking**. Freedom of scientific research is … essential for generating trustworthy knowledge and reliable data …. These values are also a prerequisite for higher education institutions … nurturing and promoting public discourses by offering expertise and evidence, and essential to democratic resilience. The forthcoming **European Research Area Act** will reaffirm the freedom of scientific research in EU law …” (EU Commission 2025)

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

How should science and democracy be related through the ERA Act?

- The European Democracy Shield has a bigger vision that the ERA Act should take up.
- Scientists have duties towards citizens. Citizens have rights towards science.
- Rightly incorporated into the ERA Act, this complex connection could strengthen science *and* democracy.

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

Universal Declaration of Human Rights 1948, "Right to science and culture":
Art. 27 (1) Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits (emphasis added).

International Covenant for Economic, Social and Cultural Rights (ICESCR 1966):
Art 15 (1)(b): "the right of everyone… to enjoy the benefits of scientific progress and its applications."
(2) The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for the conservation, the development and the diffusion of science and culture.
(4) The States Parties to the present Covenant recognize the benefits to be derived from the encouragement and development of international contacts and co-operation in the scientific and cultural fields.

Massimi, M. 2024. From the right to science as an epistemic-cultural human right to the right to expertise. In M. Farina, A. Lavazza, D. Pritchard (eds.), *Expertise. Philosophical Perspectives.* Oxford University Press.

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

The Right to Science as a normative framework for EU science policy

"…governments have largely ignored their Article 15 obligations and neither the human rights nor the scientific communities have brought their skills and influential voices to bear on the promotion and application of this right in practice." (*American Association for the Advancement of Science* 2018)

- An opportunity for the EU: The ERA Act could become the first transnational, realistic and substantive implementation of (aspects of) the RtS.

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

What exactly is the right to science?

(1) Right to a scientific education
(2) Right to participate in research
(3) Right to freedom of research
(4) Right of society that research be conducted in ethical ways
(5) Right of society to benefit from results of research
…

Negative & *positive* obligations of governments
Negative & *positive* obligations of scientists/the scientific system

(e.g. Chapman & Wyndham in *Science* 2013; UN Economic & Social Council (General Comment #25) 2020; Romano & Boggio 2024)

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

Fifth Freedom justifiable by:

… the RtS's special rights to (1) scientific education, (2) participation in scientific research, and as conducive to (3) right of freedom of research and (5) right of society to benefit from results of research

Negative obligations of EU member states:

- Treat EU scientists/knowledge workers equally throughout EU: no national discrimination, no national protectionism in scientific education, investigation, career development.

Positive obligations of EU & member states:

- Unify core principles for all stages of higher education
- Harmonize social rights of EU (EEA…) scientists/knowledge workers

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

- A normative approach to the ERA Act that **balances interests of scientists, the scientific system, and society** – integrating all functions of science.
- The Fifth Freedom will help scientists to perform their functions: research, teaching, innovations for the economy, and the strengthening of European unity.
- The ERA Act should not only create an “internal market for research”, but a deeper **European identity and a contribution to democratic resilience.**
- The ERA Act will be a beginning for implementation: national & regional governments, universities and scientific organizations will have to contribute. National interest can only come in second.

III. A STRONGER JUSTIFICATION: SCIENCE AND DEMOCRACY

A FINAL WORD FROM KANT



"The human being is destined by his reason to live in a society with human beings and in it to ***cultivate*** himself, to ***civilize*** himself, and to ***moralize*** himself by means of the arts and sciences." (Kant, *Anthropology* (1798), AA VII: 324f.)

- Science is not a dispensable feature of human history, nor only there for national interests or economies to thrive.
- It is essential for human progress.
- Evidence of the last ca. 500 years*:* science may be the greatest achievement of humankind.
- **In Europe (at least), science should go beyond nation-states**.

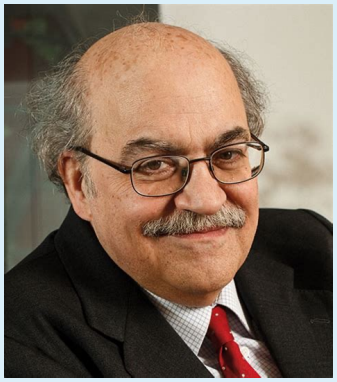
SOME OF MY FIFTH FREEDOM COLLABBORATORS



Rainer Lange
(Head of Research Policy, Wissenschaftsrat, Berlin)



Janez Potoçnik
(Co-Chair, Intern'l Resource Panel, UNEP)



Andreu Mas-Colell
(former Catalan Minister for Economy)



Alban Kellerbauer
(ERC Scientific Council, Head of Support)



Assaya Kavrakova
(Director, ECAS, Brussels)



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(Director, ECAS, Brussels)

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POSTSCRIPT ON NATIONAL BUREAUCRATIC HURDLES: SOME CONSTRUCTIVE PROPOSALS

- Campaign for informing science organizations, and academics, concerning the Fifth Freedom and the ERA Act.
- Campaign for awareness in scientific organizations for hidden and open forms of discrimination by national citizenship.
- Evaluation systems for bachelor & master degrees need to be unified in the EU.
- Reduce costs for student mobility; academic institutions in the EU should issue and accept bachelor and master certificates (also) in English.
- In the EU, doctoral titles from certified universities should become generally accepted. No more homologisation, no Hague Apostille for EU researchers.
- A doctoral certificate from an EU country should imply equivalence for being allowed to submit academic job applications.

POSTSCRIPT ON NATIONAL BUREAUCRATIC HURDLES: SOME CONSTRUCTIVE PROPOSALS

- In application processes, unnecessary national documents that act as bureaucratic barriers should be abolished.
- Information concerning national calls for doctoral and postdoctoral stipends and academic positions open to EU citizens must be accompanied by complete English translation.
- If full free mobility of national doctoral and postdoctoral grants cannot be achieved immediately, the duration of possible stays in other EU countries could be increased.
- National/regional grant agencies in the EU should follow the "money follows researcher"-principle, at least for early career researchers.
- If full portability of national research grants cannot be achieved (immediately), concrete steps can nonetheless be taken, e.g.:

(a) no discrimination for non-national Co-PI's;

(b) grant agencies could allow experiments with portability for a limited period and check results;

(c) National grant agencies should receive credit for promoting research in other EU countries.