

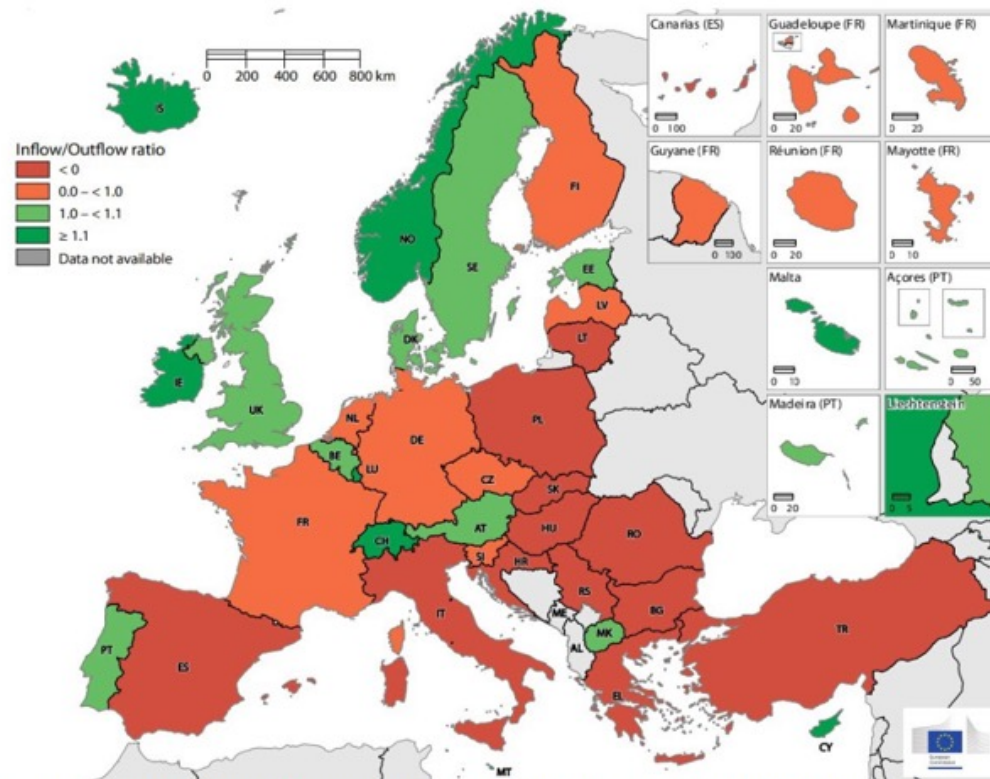
Choose Europe:

Turning European Brain Drain to Brain Gain by 2030

opportunities and challenges to boost European Competitiveness

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WHY? ...Brain drain trends Europe 2022



Source: European Commission, Directorate-General for Research and Innovation (2022), *Science, research and innovation performance of the EU 2022 – Building a sustainable future in uncertain times*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2777/78826>.

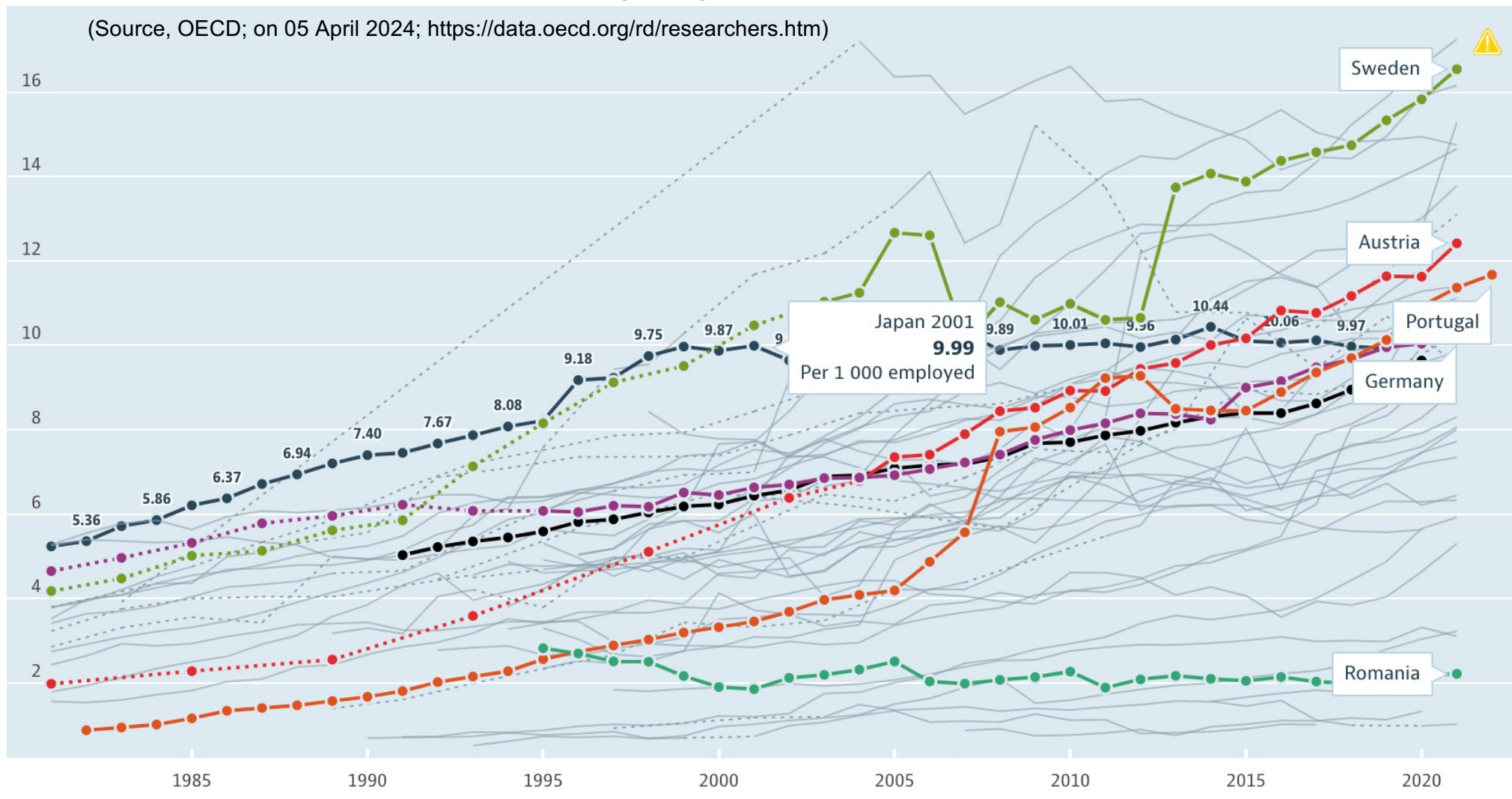
‘European brain drain’

Europe is currently not managing to “attract new talents” nor to “retain the best and brightest minds here in Europe” – overall there is a flow out of Europe, particularly towards US.

Red / orange = net outflow

WHY?....Number of Researchers (FTE)/Thousands active inhabitants in EU member

(Source, OECD; on 05 April 2024; <https://data.oecd.org/rd/researchers.htm>)



The two most relevant information sources over last decade....



CESAER

Research careers: A critical choice for Europe

Results, insights and recommendations from
CESAER Research Careers Survey 2024

Draft for restricted use, dated 15 November 2024

- It covers about **109 funding and contractual schemes** for young doctoral researchers and postdoctoral positions, for **2012-2014** (i.e, it is **10 years old**...!);

- The **volume of funding varies widely**, for 3 to 5 years:

1. 30% of the schemes up to €200 thousand;
2. 28% of the schemes up to €500 thousands;

The **duration of the schemes** varies widely, but always below 5 years:

- **Only 20% of the schemes offer 5 years or more**;
- Short term funding is prevalent in mobility schemes;

In general, it shows an **unacceptable coupling between “project duration” and “institutional employment” or “contractual schemes”**, leading to **temporary** and **precarity jobs** and **lack of responsibility**, at individual and institutional levels.

- conducted among **24 Member universities and one external university in 2024**, highlights success stories and shows that **universities in Europe are ready to expand these if provided with adequate funding and conditions**.
- However, **varying conditions across Europe**—such as **labour laws and funding challenges**—often hinder universities’ ability to offer stable research careers, limiting Europe’s talent retention.

- Shows the need for EC to establish and develop the **Research Careers Observatory**, as planned since 2021 (but still not implemented), making use of lessons learned from this new CESAER survey to monitor research careers.

- Suggests the need to **expand the Marie Skłodowska-Curie Actions** to enhance support for early-career researchers: Launch **"Choose Europe for a Research Career"**, as a co-funding scheme...

Recommendations 1: European Commission

1. Set **ambitious targets to reverse European brain drain by 2030/2035:**
 - Achieving **brain gain in Europe, at large, and in the majority of Member States.**
2. Establish, effectively, the ***European Research Careers Observatory*** to monitor careers, funding, and mobility – **current OECD/EC partnership needs focus and clarification!**
3. **Expand Marie Skłodowska-Curie Actions:**
 - Launch "**Choose Europe**" programme, using the existing MSCA's co-funding mechanism
 - Simplify immigration procedures and processes across Europe
 - Implement "Letta's fifth freedom" for free circulation of knowledge through an **adequate and legally binded "ERA Act"**.

Recommendations 1 (cont.): European Commission

“Choose Europe”:

a unique opportunity for Europe in “Trump 2.0 Era”....

- Use the **existing MSCA’s co-funding mechanism**, to launch and test new scheme in **2025-2027**;
- Funding requirements: to **institution/employer** (i.e., University/RTOs/firms), with the requirement and **guarantee of a “career development path”**, with the clear possibility of a **“permanent contract” for successful grantees with positive assessment at the end of 4th year**;
- Goal: Between **0,5 and 1 million Euros for 5 years** (i.e., less than a “ERC starting grant”), with **50 % from EC/MSCA and 50% from national or institutional funding**, including salary for grantee and other subsidies for launching a research group (e.g., fellowships for research students, travel,...);
- To be adjusted with each institution based on their salaries.
- **ACTION**: experiment **pilot in 2025** targeted to **MSCA cofund projects which host postdoctoral fellowships**: offer an extension to their fellowship by 2-3 years (so 4-6 years in total) using MSCA conditions and rates, on the condition that institutions commit to offer longer term job opportunities.

Recommendations 2: member states (MS)

1. **Stimulate “good jobs”**: promote research career development opportunities, together with adequate **support/technical careers** and **salaries** throughout Europe.
2. **Simplify visa** processes for international researchers and graduates.
3. **Promote Co-funding schemes** to meet the 3% GDP target for research & innovation:
 - **Expand "Seal of Excellence" for high-quality research investments, including Marie Skłodowska-Curie Actions** and the future programme **"Choose Europe"**.

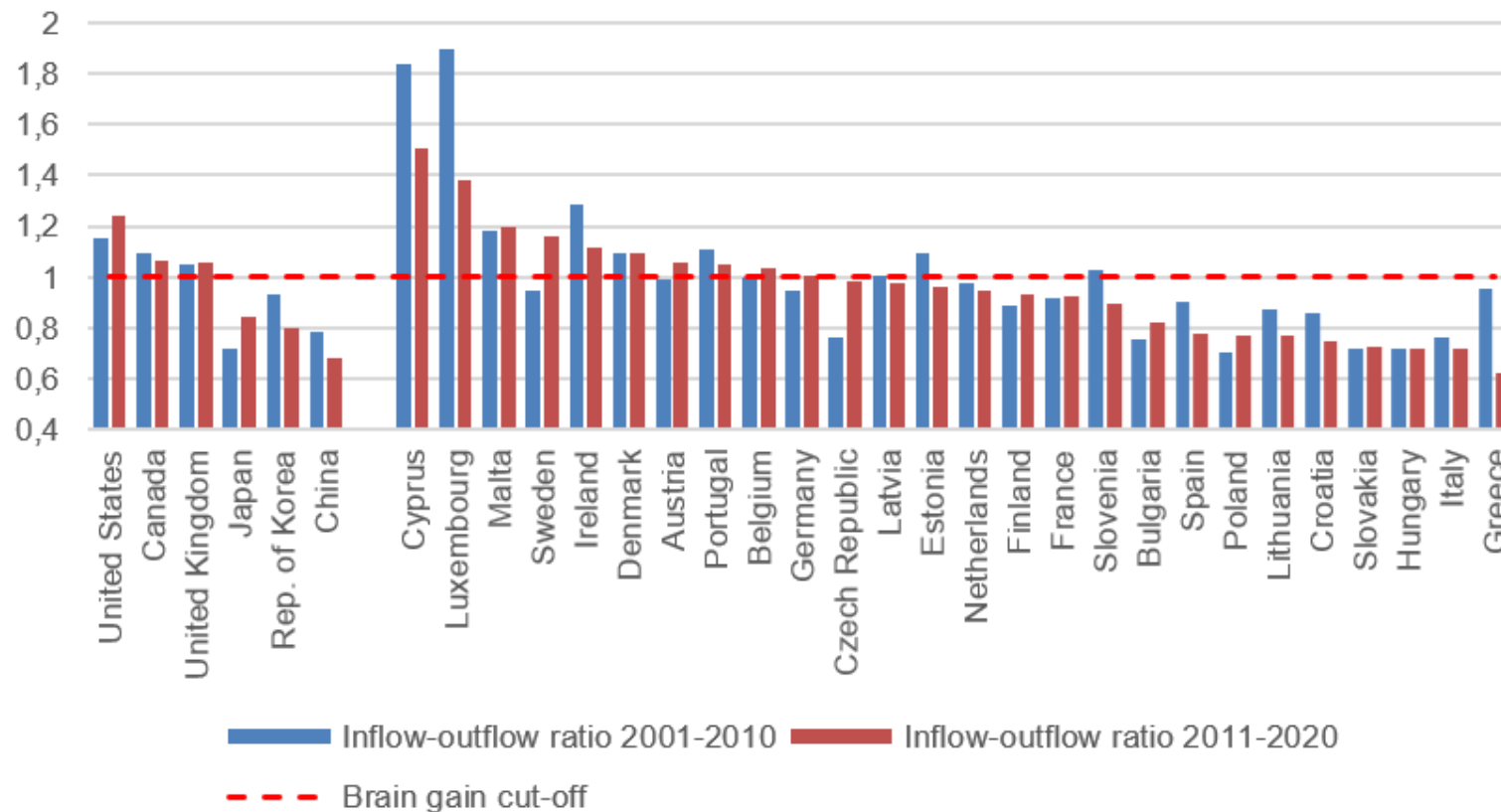
Recommendations 3: for Universities and Research Organisations

1. Foster **improved career pathways** for researchers and support staff.
2. Pursue and advocate for **decoupling of *research contracts* from *project duration***.
3. **Collaborate** with public and private sectors to **create and promote high-quality jobs and, if necessary, foster the creation of new institutions/employers**.
4. Promote **innovative schemes to recruit for early-career researchers**.

Annexes (if necessary)

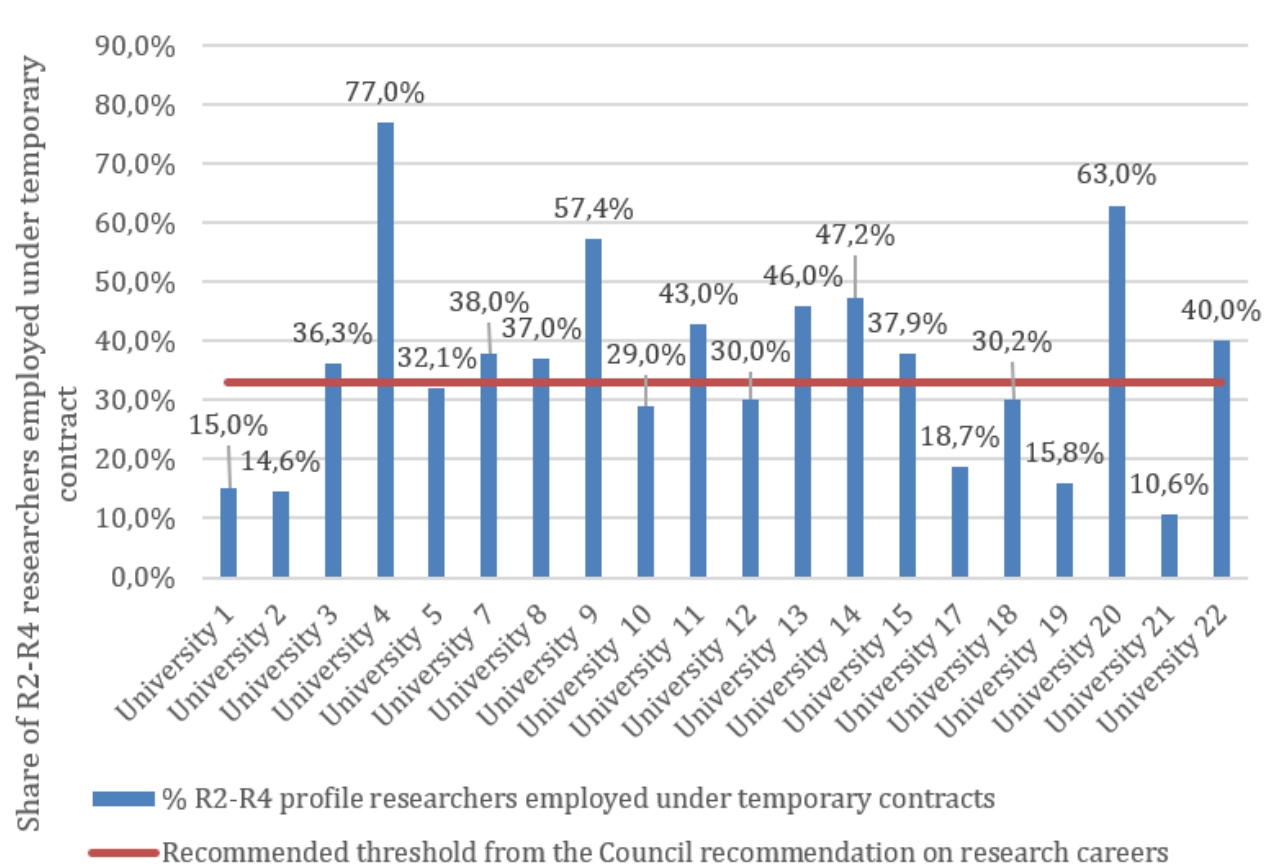
Evolution of brain drain trends 2001-2010 and 2011-2020

Figure 1.1: Evolution of **brain drain trends** for EU member states and across the world for two periods: 2001-2010 and 2011-2020



CESAER Research Careers Survey 2024:

1. Survey: percentage of R2-R4 profile researchers under temporary contracts, January 2024 (24 universities)
2. Detailed case studies (3 universities)





"High Level Group on Human Resources for Science and Technology in Europe, 2003-2004", was set up by Commissioner **Philippe Busquin** as part of the European Commission's broad strategy to address the Lisbon and Barcelona goals:

- **Jose Mariano Gago, LIP/IST**; Former Science Minister in Portugal (Chair), PT;
- **John Ziman**, emeritus professor of physics of the University of Bristol, UK;
- **Paul Caro**, former Director of Research at the CNRS, FR;
- **Constantinos Constantinou**, University of Cyprus, CY;
- **Graham Davies**, University of Birmingham, UK;
- **Ilka Parchmann**, Leibniz-Institute for Science Education in Kiel, Germany;
- **Miia Rannikmäe**, Centre for Science Education in the University of Tartu, Estonia,
- **Svein Sjøberg**, Oslo University; Fin.



Report by the High Level Group
on Increasing Human Resources for
Science and Technology in Europe
2004



...to increase the share of European GDP invested in research from 1.9% to 3%, Europe needs a further 700,000 researchers or 1.2 million research-related personnel by 2010.

The changing nature of the "high-tech" industries means that governments must step in to play a more active role in ensuring and promoting better resources and skills development.

The public sector is under-funded and universities, in particular, should be preparing their science graduates for a more diverse range of careers.

But it is not just a question of under-funding:
universities must provide a wide range of skills required by a large diversity of science careers instead of focussing on preparations for academic careers only.

Europe needs to promote scientific careers better:
...calls for a ***new partnership between universities and industry*** to promote careers and a better mutual understanding.