RoRI RESEARCH ON RESEARCH INSTITUTE

Seize the meta-moment:

systems, infrastructures & capabilities for the science of science itself

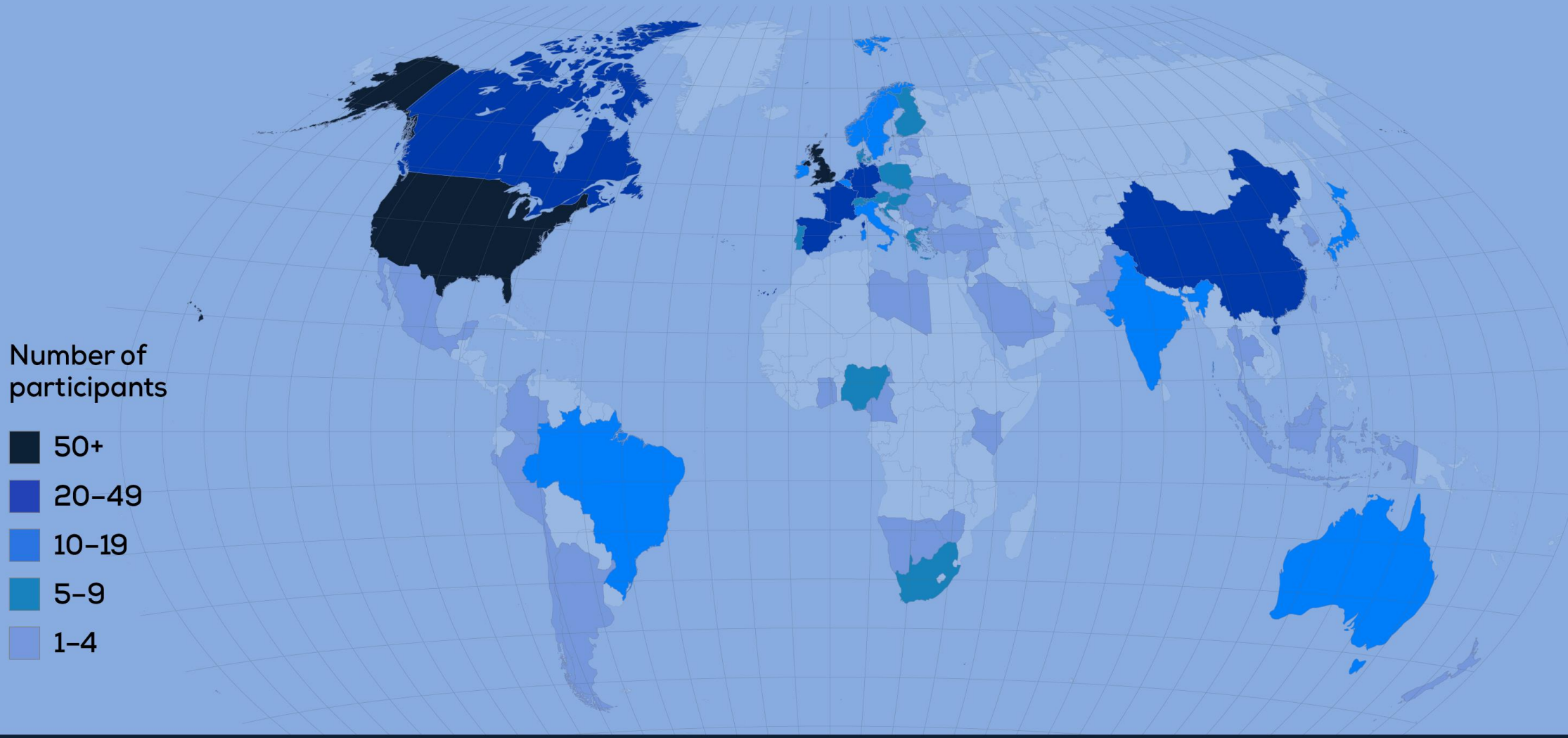
Global Research Council, 18 May 2026

James Wilsdon, UCL & RoRI

https://researchonresearch.org/

METASCIENCE 2025 CONFERENCE

WE ARE METASCIENCE



Global distribution of the 800+ participants at this conference (from 65 countries)

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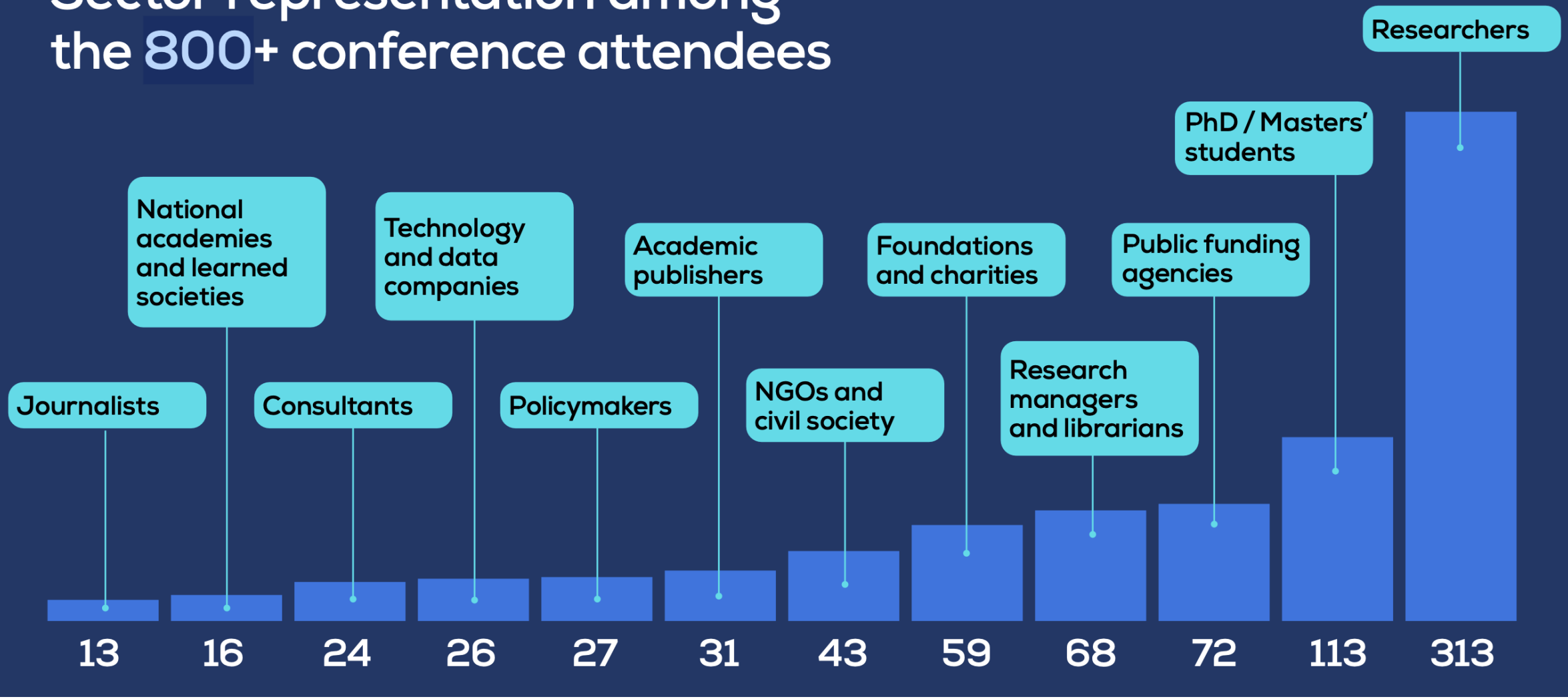
METASCIENCE 2025 CONFERENCE

Sector representation among the 800+ conference attendees



Metascience is gaining momentum across sectors and regions, with new initiatives, investments, and collaborations emerging to improve research systems. As this movement grows, the Metascience Alliance is forming as a coalition and hub for alignment and collaboration—connecting stakeholders, coordinating shared priorities, and accelerating collective progress.

The Metascience Alliance brings together researchers, funders, institutions, publishers, policymakers, infrastructure providers, entrepreneurs, and others working to strengthen how science is conducted, evaluated, and communicated. Rather than acting as a central authority, the Alliance supports shared priorities, amplifies existing work, and creates space for collaborative reform and innovation.

Editorials

nature

Metascience can improve science — but it must be useful to society, too

Researchers studying research must avoid the temptation to get too stuck in the academic weeds.

On 2 July, a science initiative was born in a lecture hall in London. The Metascience Alliance is a coalition of more than 25 funders, academic groups, companies and other institutions that pursue metascience: the use of scientific methods to understand and improve science itself.

The alliance is starting now because the community has reached critical mass and achieved broader recognition. The Metascience 2025 Conference, at which the initiative was launched, was attended by more than 830 participants from around 65 countries. Organizers had to turn people away from the summit, which is one of the biggest of its type. But the alliance and the burgeoning field must now chart their direction with care. Metascience is coming of age at a time when research is experiencing phenomenal change: artificial intelligence (AI) is transforming science rapidly; research budgets are being squeezed in many places; and science is being politicized and attacked. Metascientists can help to tackle these issues by pursuing bold studies that aid science, but they should deploy their skills for the benefit of wider society, too.

> **“Trying to brush the problems in research under the carpet would be worse.”**

Metascience studies can also help to document how AI is changing science, and help funders and policymakers to think strategically about which areas of research AI could have the biggest impact in.

Some policymakers are already interested in the field. Last year, the UK government launched a Metascience Unit, a first-of-its-kind team that is based in the Department of Science, Innovation and Technology and UK Research and Innovation, the country’s largest public research-funding agency. The unit funds and commissions studies that examine the country’s complicated research environment to work out how it can be improved.

However, some scientists who were at the London meeting are struggling to persuade senior leaders, worried about reputational damage to their organizations, to publish studies describing poor research practices. US research institutions are among those likely to be extremely cautious if they are scared about retribution from the country’s administration. Potential misuse of metascience poses a dilemma: how to communicate problems such as the difficulty of reproducibility in a way that it is not misused to undermine the foundations of science itself.

But trying to brush the problems in research under the carpet would be worse. Science is under intense scrutiny and that means it’s important for researchers to discuss any weaknesses in the system openly and to use rigorous methods and data to address them. Metascientists should also examine how trust in science has been eroded in some countries and how it can be rebuilt, including by demonstrating the value of public research funding for society. Moreover, they should help researchers to improve the ways they communicate uncertainty and the process of research. If researchers and science communicators know how to transparently discuss the ‘how’ as well as the ‘what’ of science, it could help them to respond to those who try to undermine science, for example, when people wrongly say that scientists cannot be trusted if they change their minds.

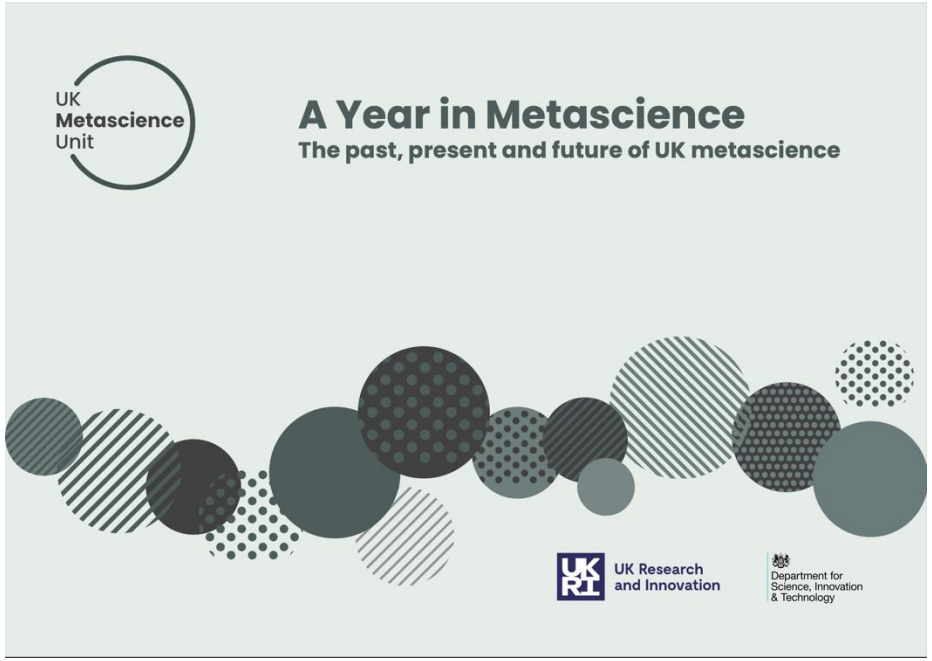
Ultimately, metascientists must guard against the risk

Reframing metascience

Metascience has deep roots and many branches. It is currently experiencing a fresh burst of growth, with new shoots appearing in many parts of the global research system.

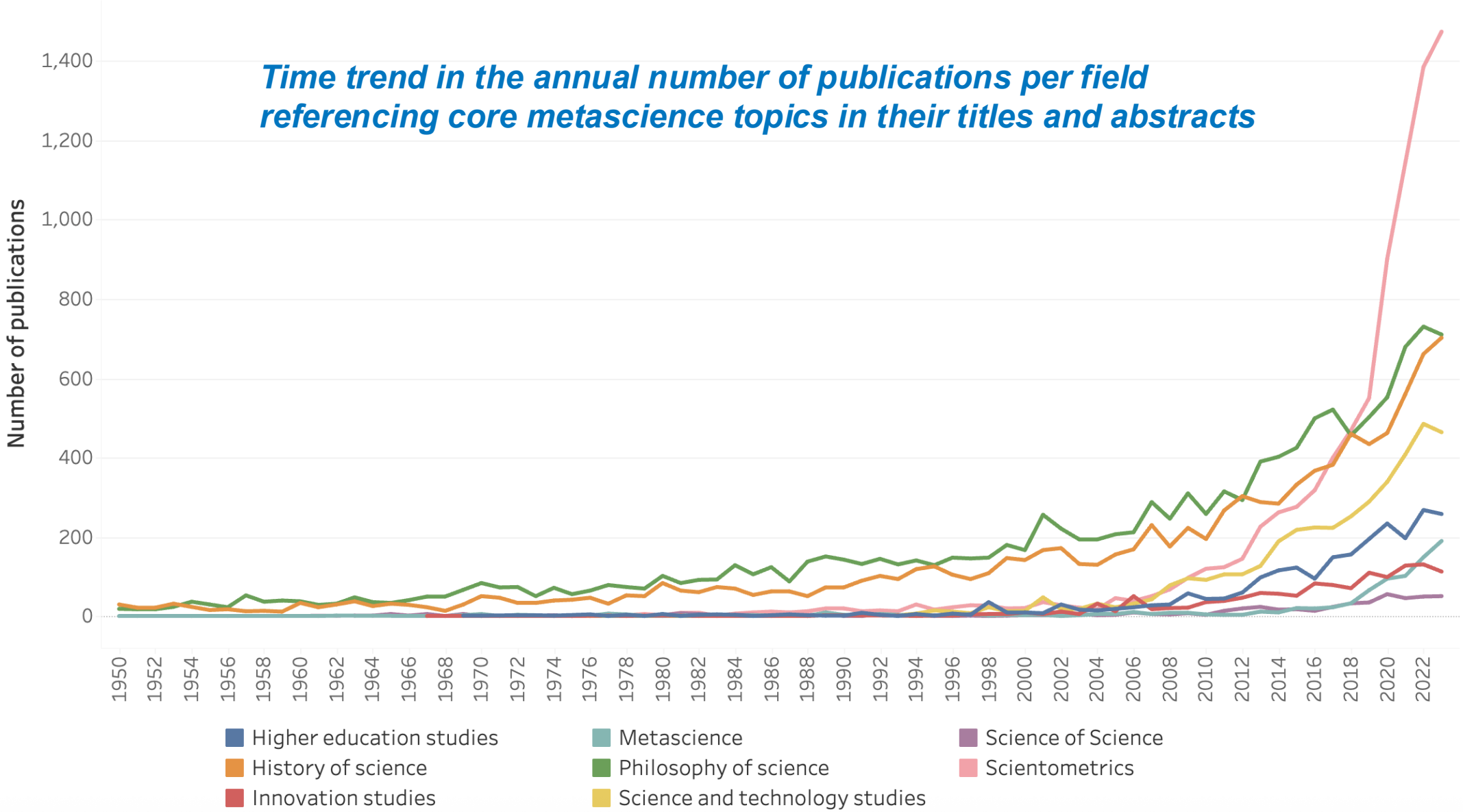
Metascience can be understood:

- **as a discourse coalition;**
- **as an inclusive, global community;**
- **as a source of collective intelligence**



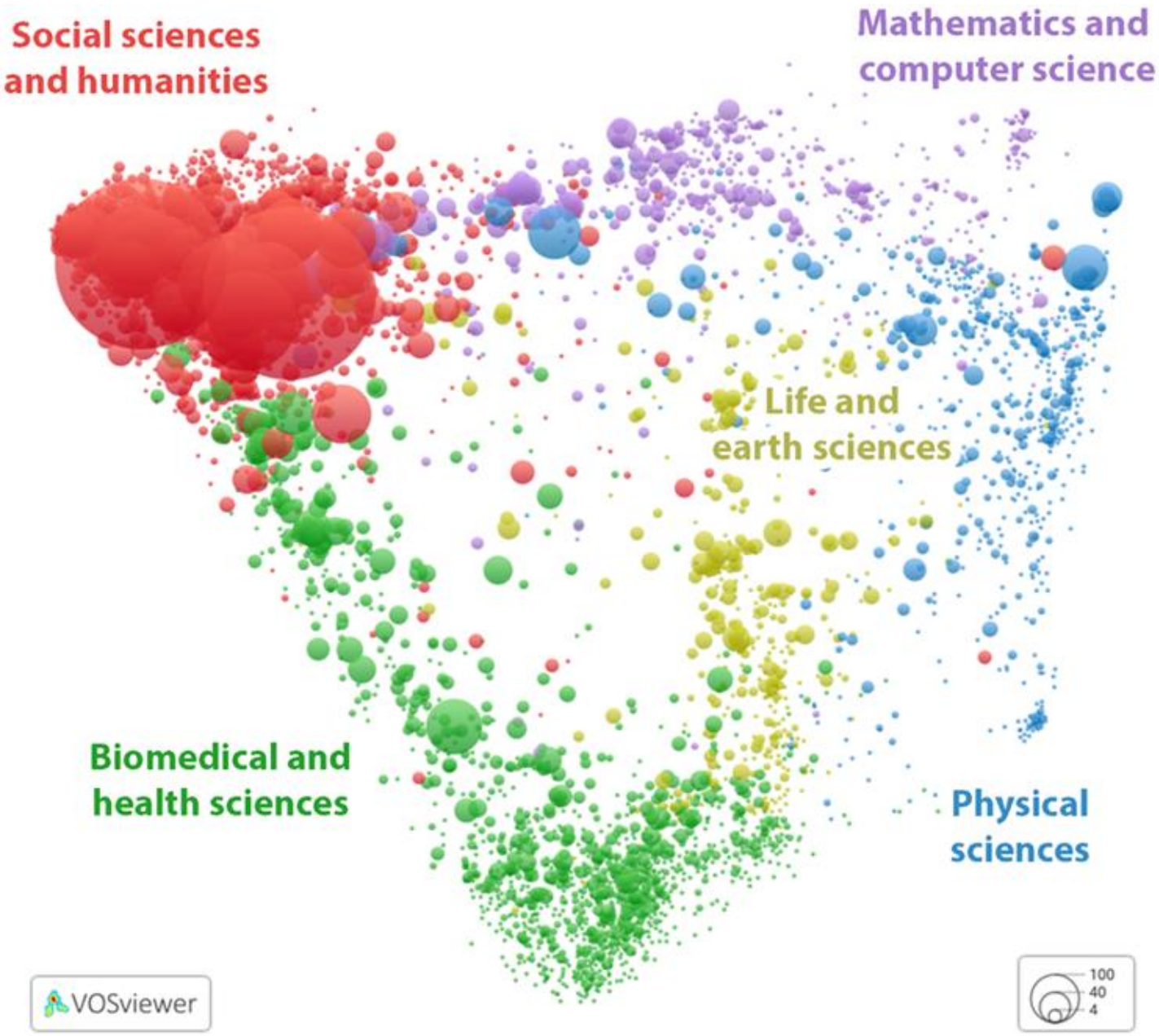
Wilsdon, J., Brasil, A., Waltman, L., & Steyn, B. (2025). The past, present and future of UK metascience: supplementary data and analysis for 'A Year in Metascience' June 2025. DOI: 10.6084/m9.figshare.29210066

Time trend in the annual number of publications per field referencing core metascience topics in their titles and abstracts



Metascience is not a discipline – it is better understood as an orientation or way of engaging with questions that most researchers (and research funders, policymakers, publishers and other actors in research systems) encounter periodically in the networks, disciplines and institutions that they inhabit and work in.

Many researchers and research professionals choose at certain points in their career to devote time, energy and research capacity to these questions. This does not require a change in their broader research career orientation, nor for them to identify as ‘metascientists’. The decision to engage in such activity is often born of a frustration with things that aren’t working well in one’s immediate environment, and a desire first to understand, then to remedy, visible problems, obstacles or failures in that part of the research system.



Metascience as a side hustle

Patterns

CellPress
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Article

Deep forecasting of translational impact in medical research

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Mark A. Hanson, Pablo Gómez Barreiro, Paolo Crosetto, Dan Brockington

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Author and Article Information

Quantitative Science Studies 1–29.
https://doi.org/10.1162/qss_a_00327 Article history

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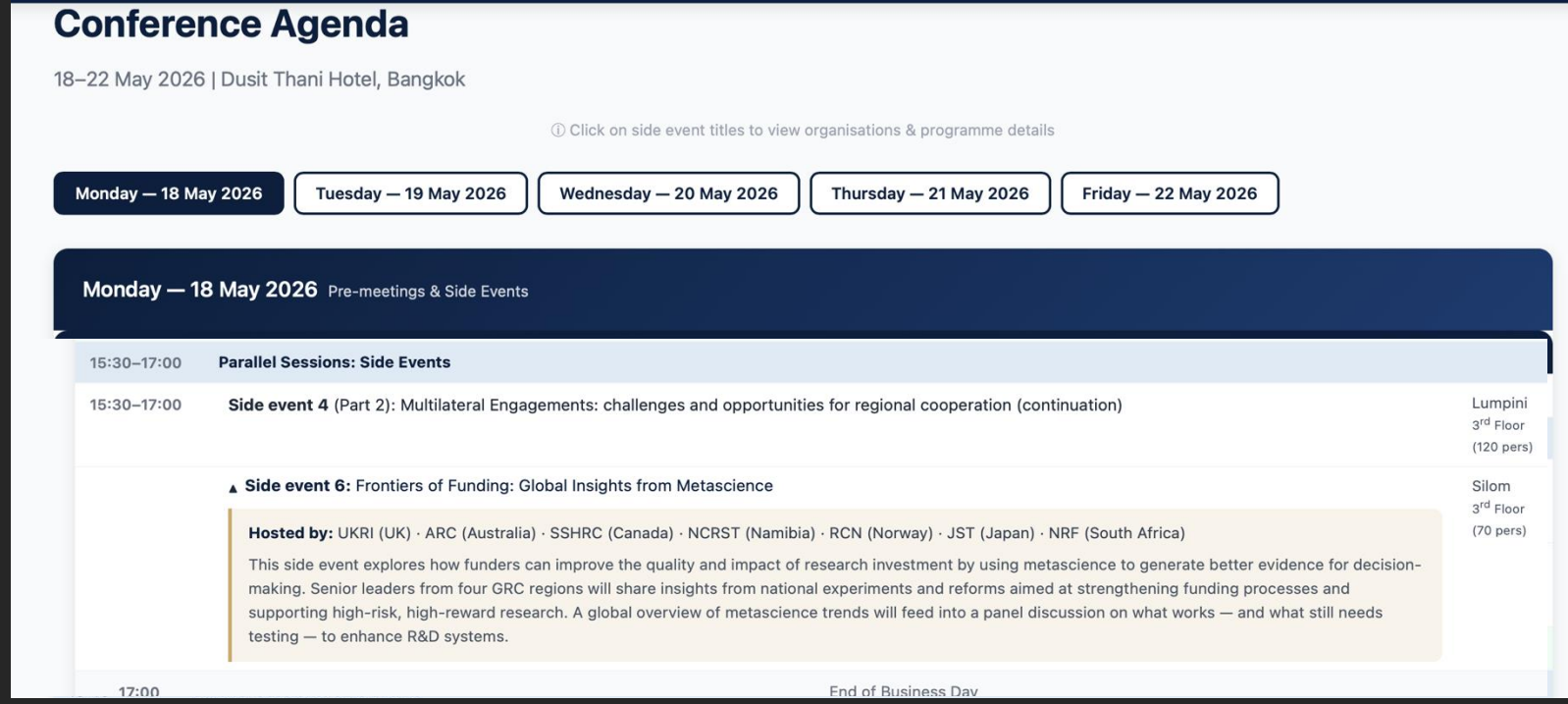
Lower barriers to entry & uptake of new methods

The menu of methods and tools for metascientific analysis is expanding fast, through a combination of improved techniques for network analysis; advances with LLMs and other AI models; and new scientometric indicators. Moves to build better infrastructures for open research information and meta-data – such as OpenAlex – are building momentum.

METASCIENCE ON THE AGENDA AT THE GLOBAL RESEARCH COUNCIL (May 2026)



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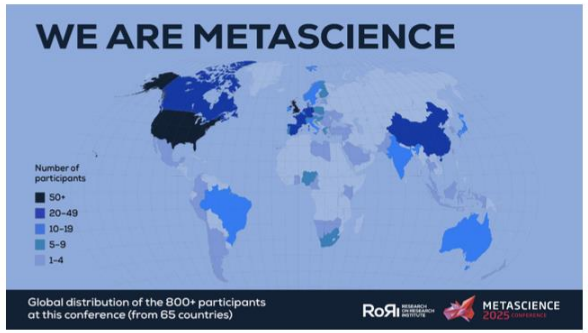
META-MOMENT:

PROJECT MANUAL FOR PARTNERS & GUIDE TO COUNTRY CASE STUDIES



30 March 2026, v.5

META-MOMENT PROJECT

National Metascience Landscape: Source Map

GERMANY

Research on Research Institute (RoRI)
Compiled: April 2026
Status: Working Draft

Executive Summary

Germany hosts one of the most sophisticated and institutionally dense metascience ecosystems in the world. Over the past decade, a rich cluster of dedicated centres, funding programmes, and policy initiatives has coalesced around the core concerns of research on research: how scientific knowledge is produced, evaluated, communicated, rewarded, and improved. Germany's approach is characterised by strong institutional investment through non-university research organisations (the Helmholtz, Leibniz, and Fraunhofer associations, and the Max Planck Society), a mandated integrity framework anchored by the Deutsche Forschungsgemeinschaft (DFG), and a growing philanthropic commitment from VolkswagenStiftung, which has made Researching Research a formal strategic priority.

The field in Germany spans multiple overlapping traditions: Wissenschaftssoziologie (sociology of science), Hochschulforschung (higher education research), Wissenschaftsforschung (science studies), Scientometrics and Bibliometrics, and more recently the internationally-inflected metascience and meta-research discourse associated with open science, reproducibility, and research assessment reform. These traditions are increasingly in dialogue, catalysed by shared infrastructure, joint graduate training, and cross-institutional projects. The BIH QUEST Center at Charite Berlin stands out as Europe's leading institutional initiative explicitly dedicated to meta-research in the biomedical sciences, while the DZHW, LCSS, RMZ, Fraunhofer ISI, and Weizenbaum Institute anchor the broader science-studies and research-policy landscape.

META-MOMENT: a new RoRI project

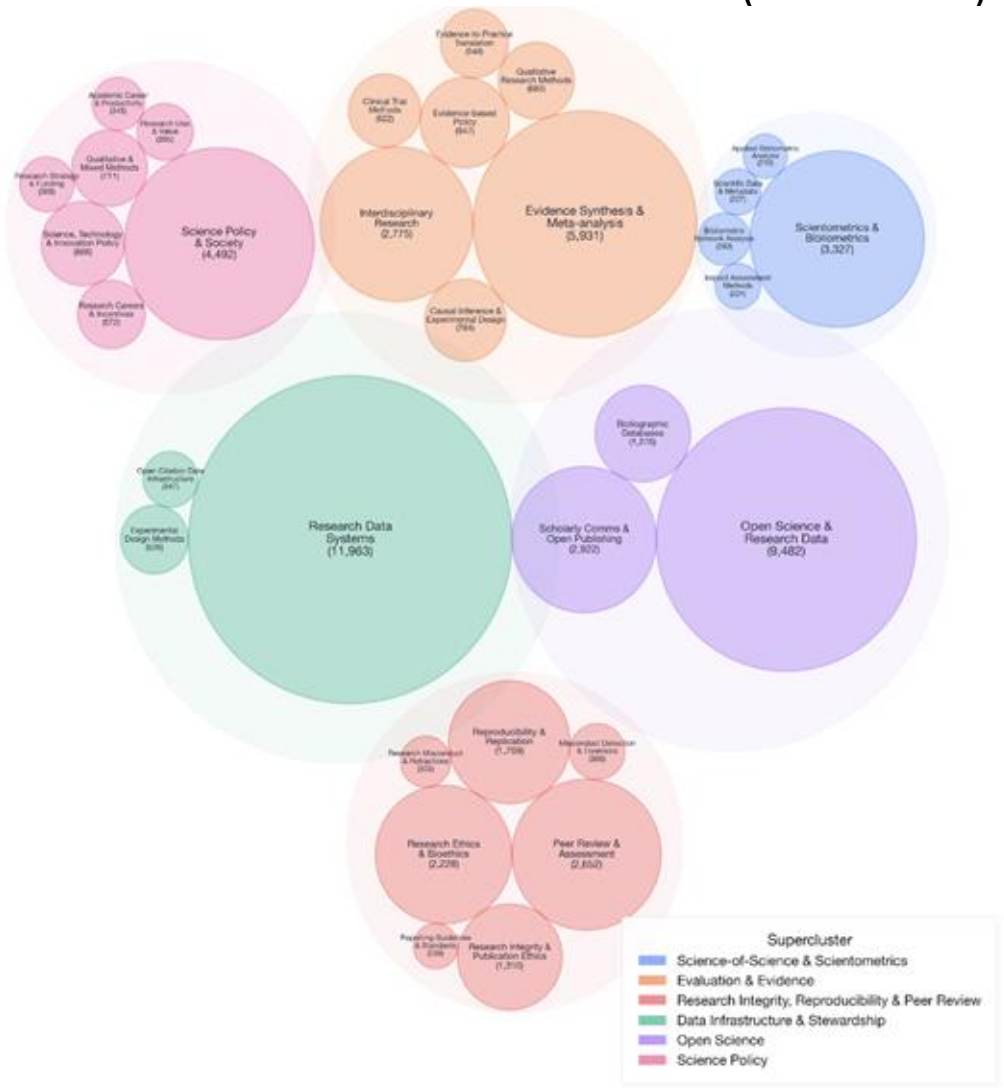
Our **META-MOMENT** project seeks to capture these dynamics of growth and transformation. The project will map and analyse the changing mix of institutions, investments, infrastructures, and capabilities for metascience across **21 countries:**

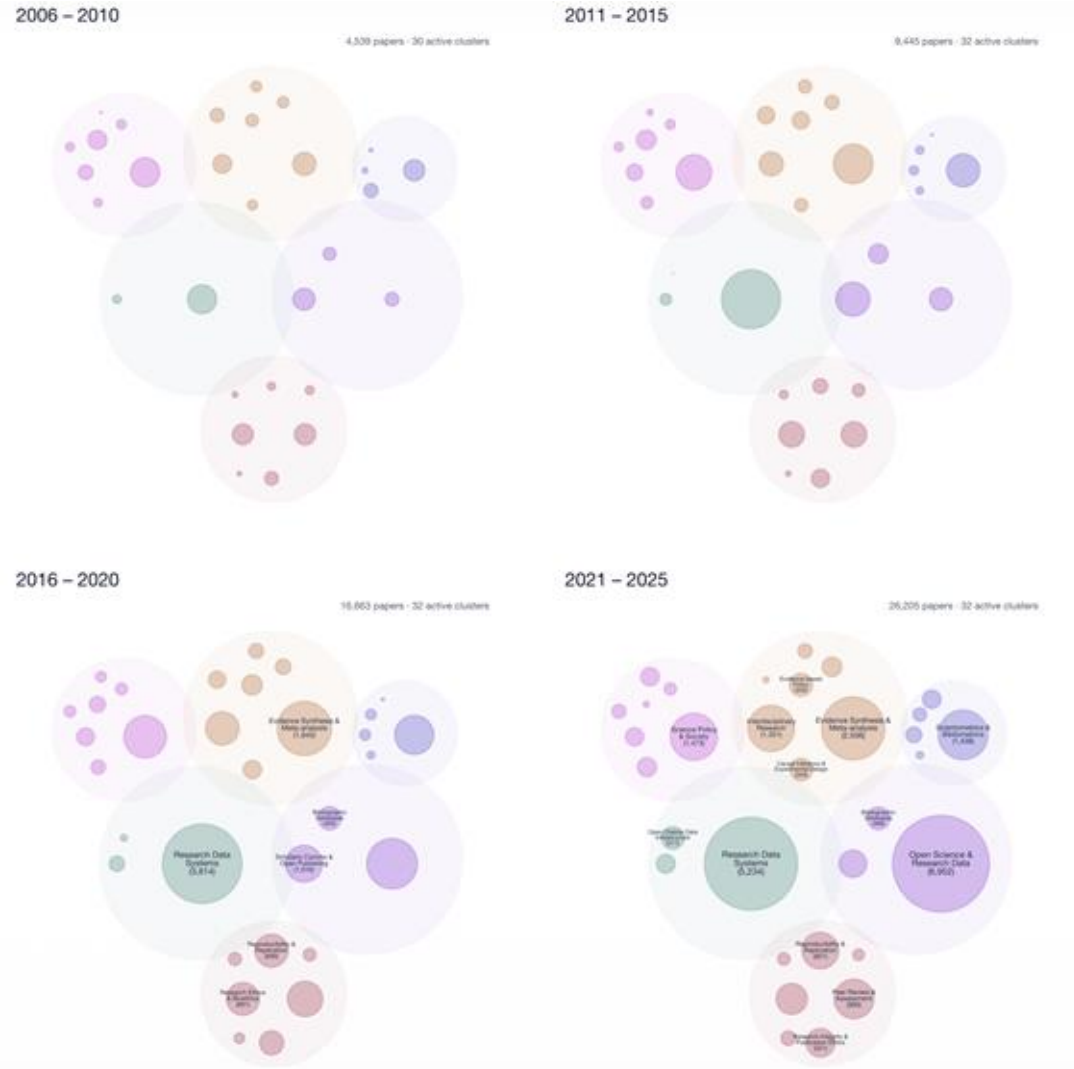
Austria, Australia, Belgium, Brazil, Canada, China, Colombia, France, Germany, Ghana, India, Ireland, Japan, Kenya, Korea, Namibia, the Netherlands, Norway, South Africa, the UK, and the United States.

By providing the most comprehensive overview of metascience in national R&D systems to date, the project aims to inform and inspire policymakers, funders, metascience researchers and decision-makers worldwide. Its final report will be published in November 2026.

The metascience system expands while retaining its core structure

Evolution of cluster structure across time (2000–2025)

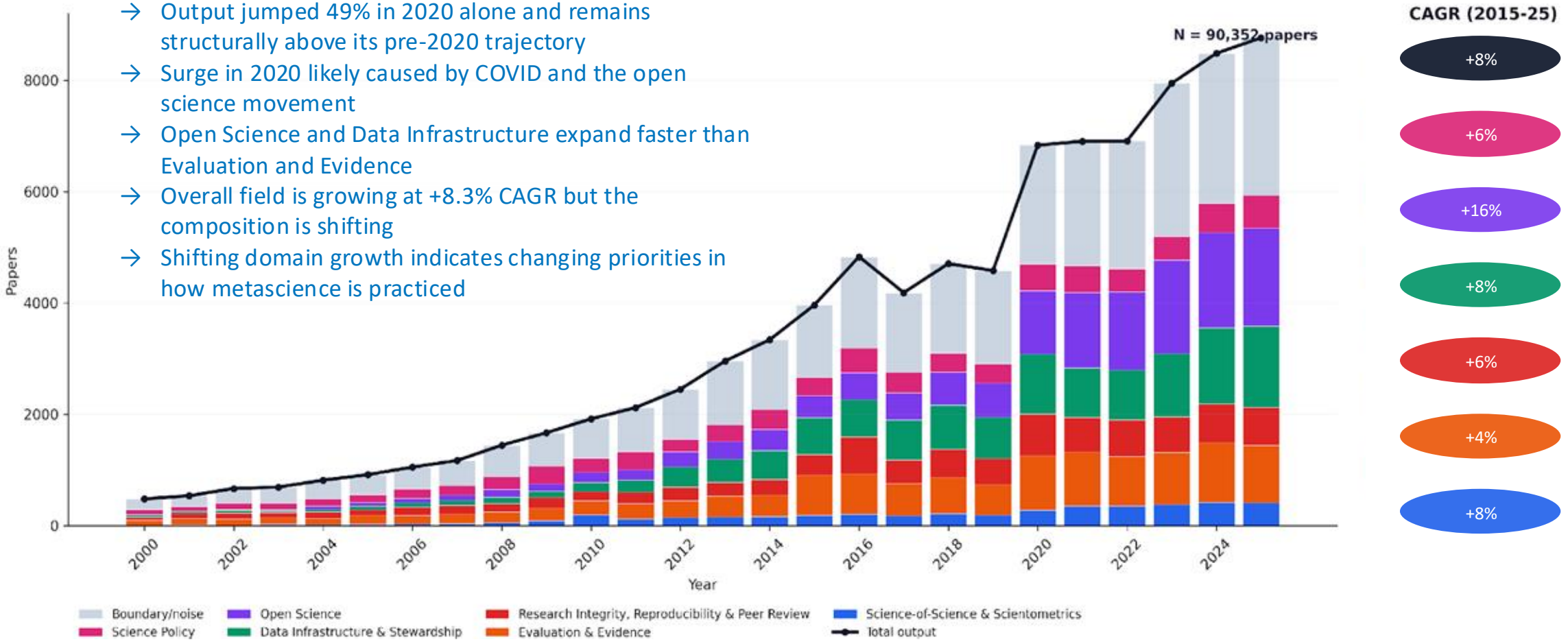




Metascience has entered a new expansion phase since 2020, with shifting domain composition

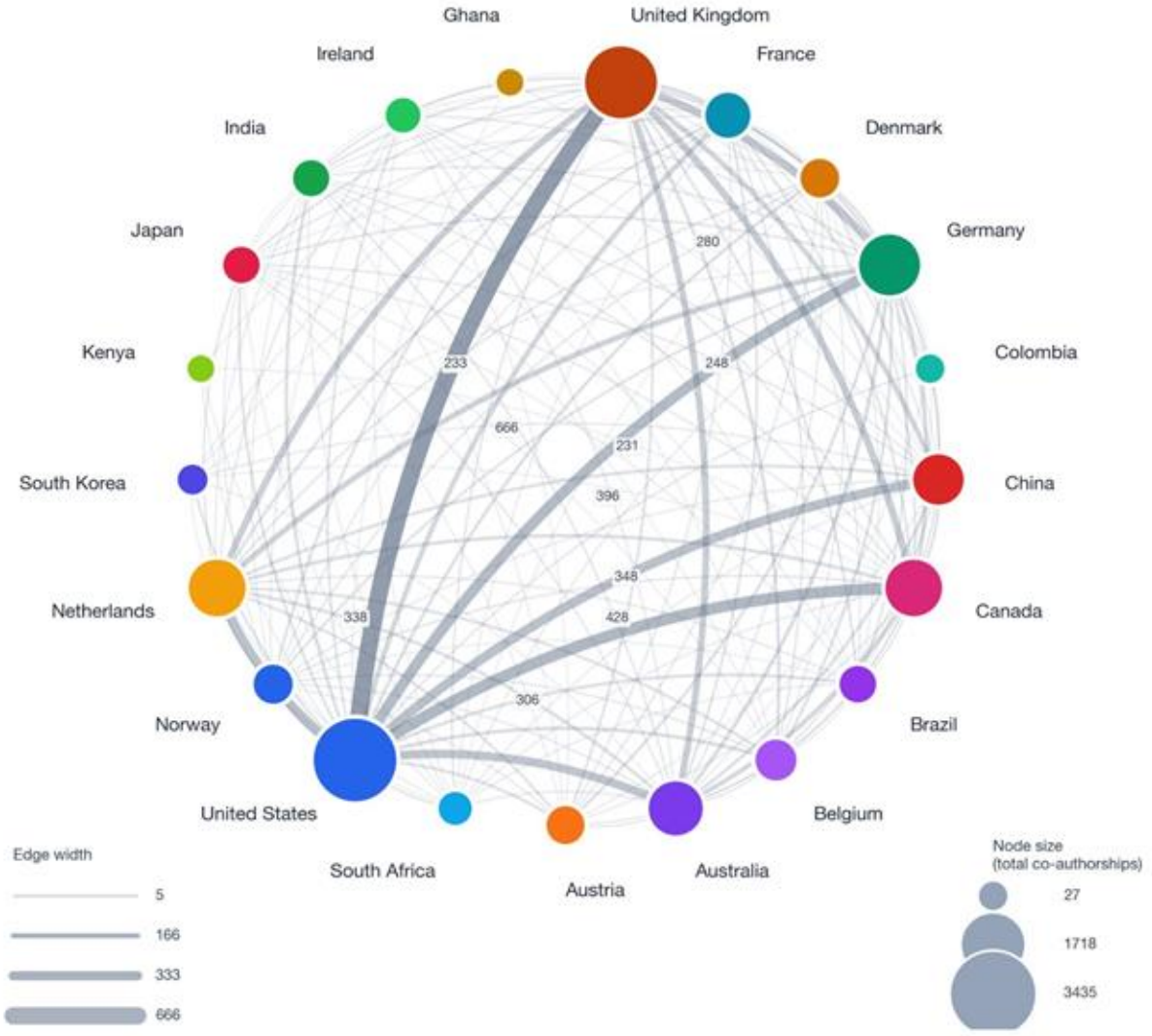
Metascience output by supercluster (2000–2025) and domain growth rates (2015–2025)

- → The metascience system is not only growing, but reconfiguring across domains
- → Output jumped 49% in 2020 alone and remains structurally above its pre-2020 trajectory
- → Surge in 2020 likely caused by COVID and the open science movement
- → Open Science and Data Infrastructure expand faster than Evaluation and Evidence
- → Overall field is growing at +8.3% CAGR but the composition is shifting
- → Shifting domain growth indicates changing priorities in how metascience is practiced



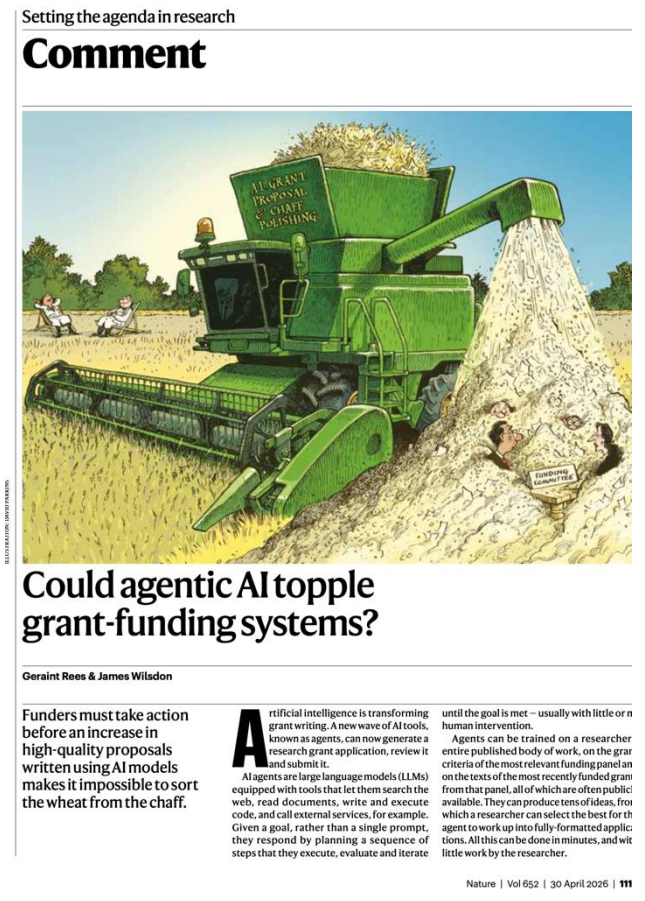
Global metascience collaboration is centralised but multi-nodal

Structure of international metascience collaborations (co-authorship volume)



Global metascience coordination is centralised but not monopolised, with influence concentrated but distributed across key corridors

- In terms of absolute country-country collaboration volume:
- The US sits at the centre of the global metascience collaboration network
- The US-UK corridor is the single strongest bilateral collaboration
- US-Germany, US-Canada, US-China collaborations form a clear second tier of major links
- Collaboration intensity is uneven across country pairs



Setting the agenda in research

Comment

ILLUSTRATION: DAVID PARKINS

Could agentic AI topple grant-funding systems?

Geraint Rees & James Wilsdon

Funders must take action before an increase in high-quality proposals written using AI models makes it impossible to sort the wheat from the chaff.

Artificial intelligence is transforming grant writing. A new wave of AI tools, known as agents, can now generate a research grant application, review it and submit it.

AI agents are large language models (LLMs) equipped with tools that let them search the web, read documents, write and execute code, and call external services, for example. Given a goal, rather than a single prompt, they respond by planning a sequence of steps that they execute, evaluate and iterate until the goal is met — usually with little or n human intervention.

Agents can be trained on a researcher entire published body of work, on the grar criteria of the most relevant funding panel an on the texts of the most recently funded grar from that panel, all of which are often public available. They can produce tens of ideas, fro which a researcher can select the best for th agent to work up into fully-formatted applic tions. All this can be done in minutes, and wit little work by the researcher.

New peer-review trial lets grant applicants evaluate each other's proposals

One of Germany's biggest research-funding organizations is hoping 'distributed peer review' can help to tackle the reviewer shortage.

By Dalmeet Singh Chawla

Having grant applicants become referees could help to address the peer-review crisis in research funding. Credit: Wong Yu Liang/Getty

Around 85% of researchers who applied for grants from a German funder have given the thumbs up to 'distributed peer review', a new process in which applicants are asked to review proposals by other researchers as a condition to having their own proposal considered.

The Volkswagen Foundation in Hannover, Germany's largest research-funding organization, is testing the process as part of its 'Open Up' programme, which handles grant proposals of up to €400,000 (US$447,000) for groups of two or three researchers who work on humanities and cultural studies. In June, the foundation published the results of a survey in which researchers involved in the initiative expressed optimism about distributed peer

RoRI: a platform for collaborative metascience

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