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EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

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COST Action “Science in Diplomacy Network” (SiDnet)

Multidisciplinary, intersectoral perspectives on Big Science

Exploring the nexus between Big Science and Science Diplomacy: an open debate on existing initiatives, key actors and potential synergies

– ELI ERIC – Prague 9.4.2026

Key point

Big Science is not Neutral

Nor it is technoology

Big Science should no longer be conceptualised as a **neutral, cooperative enterprise**— but as a structurally **hybrid domain** where collaboration and strategic competition co-exist.

Openness

vs. Control

Cooperation

vs. Competition

Science

vs. Sovereignty

The Paradox at the heart of Big Science

① Pan-European infrastructures transcend national borders — yet remain deeply embedded in **national strategic interests.**

② Sovereignty is neither fully retained nor relinquished: it is reconfigured through **negotiated arrangements.**

③ Sensitive technologies, data governance, and dual-use applications generate persistent **tensions**.

④ Access and agenda-setting determine whether facilities act as **connectors or dividers**.

180+

pan-European Research Infrastructures on the ESFRI Roadmap

Key insight:

The governance gap between scientific openness and national security is a design feature of modern Big Science.

Not a bridge: a battleground of epistemic authority

Knowledge Production

Big Science generates **authoritative claims** on climate, energy, health & security — not just data.

Selection & Framing

The translation of science into policy is non-linear: **institutional contexts** shape what is recognised and acted upon.

Legitimacy Gap

Technocratic governance **risks** democratic detachment.

Political dominance **risks** scientific integrity.

SiDnet reframes the interface not as evidence transfer, but as a site of contestation over epistemic authority.

Formalising Science Diplomacy as a Governance Framework

1

Beyond the Bridge Metaphor

Acknowledge that scientific infrastructures can **simultaneously connect and divide** — depending on access structures.

2

Design for Asymmetry

Governance structures must **accommodate disparities** in power, capacity, and political intent — **not assume default alignment.**

3

Epistemic Communities

Build **inclusive communities** that engage **(critically and efficiently)** policymakers, industry, and civil society while maintaining analytical rigour.

4

Interdisciplinary Lens

Governance of Big Science requires legal, political, economic, and ethical dimensions, and **not technical solutions alone.**

What SiDnet raises, but doesn’t resolve

Who governs the governors?

If scientists become central to diplomatic processes, how do we ensure democratic accountability without compromising scientific integrity?

Collaboration as intrinsic good?

The conditions, structures, and consequences of collaboration must be critically examined and not assumed to be beneficial by default.

What counts as legitimate knowledge?

Epistemic authority in policy contexts doesn’t depend on empirical robustness only, but also on perceived legitimacy across diverse stakeholders.

Is 'global' still meaningful?

The very concept of global science as a public good is being renegotiated in a fragmented and contested world order.

SiDnet is a structured conversation.

An experimental space for negotiating the future of science as a global public good, in a world where 'global' itself is contested.

Rethink neutrality in Big Science

Design governance for asymmetry

Bridge expertise & democratic legitimacy

Q & A

Thank you

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