

CONNECTING ENVIRONMENTAL RESEARCH INFRASTRUCTURES, POLICY-MAKERS AND THE PRIVATE SECTOR:

Feedback from the 2016 ENVRI workshop in San Francisco

On 15 December 2016, the ENVRI workshop kicked off highlighting the need to reconcile contrasting motivations between environmental research infrastructures (ERI), policy-makers and the private sector for their partnerships to work. The goal was indeed to facilitate the cross-pollination of best practices and ultimately identify actionable ideas across ERI – not only in Europe, but also in the United States, Canada and Australia.

Participants were called upon to consider the limits of current ERI funding and governance mechanisms. For now, European typically funds Preparatory Phases, leaving member states to power subsequent ERI implementation. While 22 ERI focus on applying for ERIC status, dwindling public funding requires ERI to pay additional attention to their financial stability, thereby integrating economic considerations. Although circumstances are likely to dictate greater selectivity, ERIC status imposes a 20% limit on economic activity. In seeking to ascertain risk-sharing structures and value added to stakeholders, ERI are drawn to formalize a business plan (see EMSO and AnaEE), as a means to demonstrate their capacity for innovation and technological transfer.

It thus falls onto ERI to demonstrate a societal contribution commensurate with the investment they require. By integrating their private counterparts' project management tools, ERI would also benefit from streamlining compliance to their sponsors' requirements. ERI should be encouraged towards a project-based mentality, embodied by credible scientific governance and vocational managers, able to effectively pitch their value proposition. Prototypes – backed by an effective implementation plan – also show promise in terms of demonstrating value and a lucid market/gap analysis. Activating new funding and planning instruments may eventually rely on ERI recruiting specialists, possibly a dedicated innovation officer.

Looking to Northern America, such tools appear to have been better integrated. Ocean Network Canada noticeably caters to corporate partnerships, both domestically and abroad, as a means to derive 60% of its funding from sources other than national subsidies. The private sector sets a high priority on accessing the best community standards, sending

a clear signal for ERI to develop a scientific stamp of approval on such decision-support tools. The question thus becomes for them to be equally performant at the largest and most refined scales. We would contend only cross-domain ERI synergies are capable of securing trust for data and the corresponding applied services, with the necessary dearth and scalability. Generating this real-time, calibrated and ready-for-use big data requires extensive computing power, exemplifying a new frontier for ERI to secure long-term funding stability – and therefore securing the underpinning political will.

A proactive dialog between ERI and industry requires changing the current engagement paradigm by surveying their requirements first and paring them with the relevant ERI, experimental protocols and academics. One way to do so is through minting disparate sectors together in synthesis centers. Key inspiration can be drawn from NACAR ECEP/RAL value added model for the reinsurance sector, integrating risks and agronomic market development incentives. This approach integrates the common perception of high risk and cost associated to high impact solutions. Instead, bearing in mind the competitive advantage leveraged from such collaborations typically lasts 2 to 3 years, all parties are brought back to the negotiation table on a regular basis, which effectively fosters sustainable outreach. Partners thus overcome the intellectual property challenges in the open source mandates of public research, provided private partners share typically non-scalable functions (legal advisory, management, R&D...).

Closing statements focused on mainstreaming operational models in existence and ERI getting traction on public and private partnerships by leveraging current synthesis centers. Owing to growing budgetary constraints and multiplying research priorities, increasing connectivity between cross-cutting structures is essential to ERI demonstrating their capacity for technology transfer. A solution lies in ERI in attracting champions to illustrate their innovation potential, as they may best leverage eloquent data which directly speaks to industries and policy-makers – such as the cost of research versus damages inflicted by natural hazards. ERI also face a key challenge in scaling and multiplying use cases and consider whether these should be developed at the regional, national or international scale to reach out not only to multinationals but also SMEs. This is a new way of working together for mutual benefit, to address the challenges of the future.

ABOUT THE AUTHORS



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Margaux Dillon (Environmental Lobbying Officer, INRA) currently supports stakeholder outreach efforts on behalf of ENVRI, also contributing strategic reports. A sustainability practitioner with corporate responsibility experience in the energy sector, she has worked in France, India and the United States. Committed to synergies between environmental research and the industry, she supports cultural non-profits in relations to natural risk resilience.