



EXECUTIVE SUMMARY FOR DOMESTIC POLICY MAKERS

International collaborative RD&D

The Paris Agreement stipulates that accelerating, encouraging and enabling innovation is critical to achieving an effective, long-term global response to climate change and promoting economic growth and sustainable development. Collaborative approaches to research, development and demonstration (RD&D) are crucial for accelerating the large-scale development and commercialization of climate technologies. The aim of international RD&D collaboration is to enable regions and countries to share knowledge and experiences in relation to innovative technologies so that each country can develop the capabilities needed to find its own path towards a low-emission, climate-resilient society and economy. Collaborative RD&D initiatives can be successful and effective, but careful attention must be given to their design and implementation, which has to be goal-oriented and systemic while supporting capacity-building globally. This approach would ensure that such initiatives are better placed to help achieve the overarching goal of strengthening climate innovation around the world to address the urgent global climate challenge.

KEY FINDINGS FOR DOMESTIC POLICYMAKERS

Policy-makers play a key role in defining patterns of international collaborative RD&D and designing effective policy instruments for creating a supportive environment to encourage climate technology innovation. Policy-makers are fundamental in **bridging gaps** that hinder the long-term sustainability of international RD&D initiatives related to climate change and their successful delivery, including by:

- **Facilitating high-level political buy-in:** institutional engagement and support during both the planning and implementation phases of international RD&D initiatives enhances the sustainability of the programme and ensures that its focus is linked to the national RD&D strategies and priorities of participating countries;
- **Linking RD&D initiatives to climate change goals:** many international RD&D initiatives are not climate-specific, but rather have very broad, non-specific goals that indirectly involve topics related to climate change, while relatively few initiatives address climate change adaptation;
- **Ensuring proper governance and management processes:** the design of governance structures and management processes should be given due consideration to ensure that structures and processes are inclusive and allow equal participation in international RD&D initiatives. In developing countries, where funding for RD&D is extremely sparse and researchers are overstretched, providing the right support to ensure proper participation in the management of initiatives can prove particularly challenging;
- **Facilitating private sector involvement:** the participation of the private sector is crucial to translating RD&D results into market deployment. Although concerted efforts have been made to engage with the private sector under various RD&D initiatives, the extent of the private sector's involvement remains limited in the early stages of the technology cycle, mainly focusing instead on the demonstration, incubation, commercialization and diffusion phases.

OPTIONS FOR ACTION

Policy-makers should encourage **governmental authorities** to engage in existing international collaborative RD&D programmes.

Policy-makers should also prioritize measures that facilitate the commercialization of the results of international RD&D. This includes establishing **policy frameworks** and **engaging in international standardization processes** to create early markets and conditions that favour broader deployment and promote performance specifications that are likely to increase acceptance among users. Moreover, stronger enforcement of **intellectual property rights** would help mitigate problems associated with RD&D rights protection and attract more partners to international RD&D programmes.

Alignment with national priorities, needs and capabilities is crucial in terms of the ownership, impact and long-term sustainability of international RD&D initiatives. It is important to incorporate needs assessments in programme design by identifying (and regularly updating) thematic areas in line with country goals and establishing calls for funding of RD&D proposals accordingly.

RD&D initiatives should be given a **flexible operational and funding structure** that allows countries to choose which activities to participate in according to their national interests and capabilities. For instance, **multi-institutional consortia** with sector-specific objectives would allow for flexible participation of countries and facilitate the mobilization of expertise from academia and the private sector and of private sector funding.

Policy-makers should ensure smooth, streamlined management of RD&D programmes by anchoring them to **existing science and technology institutions** with well-established administrative infrastructure. Support should be provided to ensure effective participation of experts from developing countries, especially the least developed countries, which tend to have weaker innovation systems and limited financial resources available to academics and researchers. The participation of female experts should be a particular area of focus.

Approaches for promoting the participation of firms, from offering incentives such as **follow-on grants** for particularly promising candidates to ensuring a close connection between collaborative **RD&D initiatives and incubators and accelerators**, should be encouraged. Similarly, by engaging in international RD&D programmes through the creation of **public-private partnerships**, private actors could diminish the high level of risk involved in research and innovation, particularly for small and medium-sized enterprises, while accessing new markets and commercialization opportunities.

Interactions with **private investors and financial institutions** should be explored further to enable them to implement environmental, social and governance provisions in their portfolios, with a focus on the long-term societal benefits of investments.

For more information please refer to the compilation of good practices and lessons learned on international collaborative research, development and demonstration initiatives of climate technology, available [here](#) on TT:CLEAR.

