



Path to a research and innovation ecosystem, Tunisia's story

Tunisia is looking to develop a more robust research and innovation (R&I) system underwritten by framework conditions with clear priorities to promote greater private-sector participation. Experts from the European Commission's Horizon 2020 Policy Support Facility (PSF) answered the government's request for support. Their final report, *Research priorities and private participation in R&D*, contributes to Tunisia's turnaround story.

Tunisia was the cradle of the Arab spring and its return to democratic rule in 2015 has paved the way to a stronger economy and better living standards than its Maghreb neighbours and many other African countries. Tunisia's is an export-oriented country enjoying solid trade relations with the European Union (EU).

Despite these positive economic signs and its substantial foreign direct investment (FDI) in sectors such as energy, electronics, pharmaceuticals, agri-food, tourism and telecommunications, Tunisia's economic structure shows all the characteristics of a 'dual economy'. A modern industrial base made up of 500-600 export-oriented businesses (of 10 employees or more) is juxtaposed with thousands of under-capitalised micro-enterprises targeting the domestic market, 80% of which work in the services sector.

Tunisian authorities are undertaking reforms to improve the country's R&I performance and turned to the PSF for recommendations on two specific issues: how to define and implement research priorities for developing scientific capacity and the economy; and ways to promote more private participation in research and development (R&D), including greater public-private cooperation and measures to stimulate private investment in R&I.

More than 100 stakeholders were involved in meetings and discussions with the PSF expert group during two country visits carried out in 2018. The experts engaged with representatives from the Ministry of Higher Education and Scientific Research (MHESR), the Ministry of Industry (MoI), trade and business associations, technopoles, business incubators, research centres and academic institutions. The final report, entitled 'Research priorities and private participation in R&D' presents detailed policy recommendations and many examples from other countries on how to address the issues facing Tunisian authorities.

Three key policy messages

The expert panel, chaired by former European Commissioner for Research, Philippe Busquin, identified three key policy messages that underpin the more detailed recommendations presented in the PSF report.

Firstly, Tunisian authorities need to **set up the right framework conditions for enabling effective R&I policy development**. At present, there are poor links between research policy and innovation policy and a lack of sustained support for research activities. A joined-up national R&I strategy is missing and there is room to improve 'horizontal and vertical coordination' among different actors (e.g. between ministries and research institutions).

"While some progress has been recently made, according to several stakeholders, [the MHESR and the MoI] do not communicate much with each other and there is little coordination of key functions at the ministry as well as at the agency levels," the report stresses. "The lack of coordination between the [two ministries] has hampered the implementation of a coherent and systemic approach to R&I policymaking."

The lack of data complying with international standards on R&I activity is another issue raised in the report. Data on business innovation is limited and outdated, and there is no information on the extremely broad system of intermediaries, such as technopoles and incubators. *"Any discussion of strategies for increasing private R&D spending in Tunisia is beset by a lack of robust data on business innovation activity, on the interactions taking place in the national innovation system and on the impact and efficiency of public interventions,"* note the authors.

Secondly, Tunisian authorities need to **strengthen synergies and coordination efforts across R&I stakeholders, concentrating funding flows around well-selected priorities**. The current priorities are more societal challenges than research priorities per se. According to the experts, "A

more explicit definition of how research could respond to these challenges would help in better defining the priorities and in increasing the effectiveness of R&I policy."

As part of the recent government exercise for the definition of research priorities, Tunisian authorities organised a consultation process involving stakeholders from both the research community and administrations, but businesses needs were not sufficiently explored. Moreover, the report reveals that Tunisia would benefit from better coordination between national research funding schemes and bilateral and European programmes, especially in areas matching its research priorities, in order to increase the critical mass of research funding in priority areas.

Thirdly, Tunisia needs to **boost the performance of all key operators in the innovation ecosystem through well-designed incentives and support tools**. The Tunisian research system relies on a wide system of small academic research laboratories and units, with limited research budgets and heavy administrative burden. The authors point out that: *"Universities demand more strategic, financial and managerial autonomy, as well as leaner administrative processes. Their limited freedom is hampering research performance and third-mission activities."*

While some universities have more autonomy – benefiting from their status as an *établissement public à caractère scientifique et technologique* (EPTS), which encourages more strategic activities – other institutions have limited strategic freedom with respect to research priorities.

At present, according to the experts, *"The researcher status in Tunisia is de facto a higher education teacher status, with no specific valorisation of other activities (research activity, expertise, international collaborations, partnerships with companies, start-up creation, third-mission activities)." There are also no monetary incentives for researchers and/or labs to establish collaborations with the private sector.*

Where to go from here?

The PSF report makes several policy recommendations, organised around three themes:

Theme 1: Set up the right conditions for enabling effective R&I policy development

- Extend the scope of the national R&I strategy beyond R&D policy, in particular to include support for business innovation
- Improve exchange of information and coordination of strategy and policy at all levels
- Introduce data collection exercises to implement evidence-based decision-making in R&I policy

Theme 2: Strengthen synergies and coordination across R&I stakeholders and funding flows around well-selected priorities

- Better specify and implement research priorities in R&I policy
- Consolidate national R&I funding focusing on the research priorities
- Set up priority-specific networks bringing together relevant stakeholders
- Coordinate national research funding with bilateral and European programmes

Theme 3: Foster the engagement and performance of all key operators of the innovation ecosystem through well-designed incentives and support tools

- Increase the accountability and autonomy of research institutions
- Promote academic engagement with incentives and reforms
- Increase the effectiveness of intermediary organisations in supporting R&I policy implementation
- Revamp existing programmes for innovation
- Increase absorptive capacity and promote entrepreneurship.

For further information:

The Final Report of the PSF Specific Support to Tunisia: 'Research priorities and private participation in R&D' <https://rio.jrc.ec.europa.eu/en/library/specific-support-tunisia-final-report>

The PSF Specific Support to Tunisia <https://rio.jrc.ec.europa.eu/en/policy-support-facility/specific-support-tunisia>

Seeking to improve the design, implementation and evaluation of research and innovation policies, the PSF provides expertise and practical support to Member States in a number of ways: Peer Reviews of national R&I systems, Specific Support to policy reforms, and project-based Mutual Learning Exercises to improve policy-making and implementation. It is funded under Horizon 2020, the EU's research and innovation programme, with up to €20 million.