



Ten steps, and a leap forward: how Danish innovation can step up its game

Denmark is a recognised innovation pioneer and yet there is a sense that it could still do better to become a world leader. How can an innovation leader up its game? Experts from the Horizon 2020 Policy Support Facility (PSF) answered the government's request for a review to help answer this question. Their final report, *Ten steps and a leap forward: taking Danish innovation to the next level*, recommends a two-pronged approach: ten concrete actions to improve the current system and stronger strategic ambition.

Denmark's innovation system is world-class with high R&D investments and recognised capabilities in life sciences, wind energy and robotics. Key strengths include its outward orientation, creativity, talent, a strong business environment, and well-performing industries in food, logistics services and pharmaceuticals. Yet, despite its focus on innovation, Denmark has experienced slow productivity growth. There is also a sense that it could do better in terms of how strengths are translated into results and in its response to structural changes in the global (innovation) landscape.

The review of the Danish research and innovation system investigated this disconnect. It was conducted by a panel of international peers and independent experts under the European Commission's Horizon 2020 PSF. The panel drew on data and facts provided by the Danish Ministry of Higher Education and Science (MHES), interviews with a broad range of national stakeholders, and effective policy approaches and practices in other countries.

What are the key learnings?

The report is the first performance review of an innovation leader under the PSF. The recommendations follow a two-pronged approach for strengthening the Danish innovation system. The first is a set of ten recommendations outlining **concrete actions to improve existing elements within the Danish innovation system**. The second set of recommendations looks at how to **define a stronger strategic ambition for Denmark**, providing a more coherent structure for aligning individual actions and policies towards a common goal.

The **recommendations relating to the existing system** address specific challenges, as follows:

1. *Universities:* Today, universities are uncertain what the Danish government expects of them in the overall innovation agenda. Five specific recommendations help to clarify universities' innovation mission, including dialogue with MHES on innovation, application of EU State Aid rules, efforts to celebrate success and role models, and the resourcing of knowledge-exchange activities.
2. *Strategic instruments to drive ecosystems and domain development:* Past reforms have led to a dominance of narrow, project-oriented funding streams that do not support the evolution of ecosystems and broader innovation domains, which are becoming increasingly important. Four specific recommendations suggest new programmes to support systemic agendas, the creation of platforms for multi-stakeholder collaboration, a revision of the role of the Innovation Fund Denmark in this context, and a broadening of relevant funding instruments.
3. *Science parks, physical ecosystems and incubators/accelerators:* Denmark has successful science parks but lacks clarity on their function, the responsibilities of different actors, and the nature of funding streams. There is also no clear mechanism for best practice-sharing. The report recommends roles and processes be better clarified.
4. *Research and Technology Organisations (RTOs):* Denmark's RTOs provide important services to firms, but can be a more active as a strategic interface between university-based research and technological innovation in companies. Three recommendations address their role in the innovation system, their collaboration with other related institutions, and the funding model.
5. *Coordination with private foundations:* Denmark's private foundations are an increasingly important source of R&D funding, but they are not strategically integrated within the policy structures supporting innovation, and there is no common understanding on their strategic

role within the system. The report recommends enhancing coordination efforts funded by private foundations and public-sector entities, and to strengthen strategic collaboration.

6. *Alignment across the system:* Responsibilities for innovation policies are distributed throughout different government entities, and past reforms minimised the need for coordination efforts to manage increasingly complex and important linkages. Four specific recommendations address the creation of a government-wide system of Key Performance Indicators, the need for increased labour mobility across ministries, a joint foresight exercise across government, and the creation of an Inter-ministerial Committee at civil servant level.
7. *International linkages for the Danish innovation system:* Denmark's innovation system is internationally well connected, but the coordination across individual institutions and programmes is limited. Four specific recommendations address the creation of contact points for internationalisation within the emerging business support structure across Denmark, efforts to ensure and enhance the ability of clusters and innovation networks to support internationalisation, efforts to attract foreign investment from multinationals into R&D centres, and a review of other incentives to attract international funds.
8. *Danish strengths in non-science-driven areas like design, urbanism, and social innovation:* Strengths in design, new urbanism, creative industries, and social innovation remain underutilised in the Danish innovation system. Three specific recommendations address the alignment of existing design clusters with industry innovation activities, and how to integrate New Urbanism, sustainability-oriented initiatives, and social innovation into the wider innovation system.
9. *Public procurement for innovation:* Government procurement plays a large role in the Danish economy, but there are few systematic efforts to leverage it for innovation. The report recommends embedding innovation into public procurement practices, appointing a point person for innovative public procurement within the MHES, and developing an action plan on how to achieve a greater share of innovative procurement.
10. *Impact assessment:* Denmark has a strong tradition of impact assessment and innovation system analysis, but is no longer among leading countries in this space. Three specific recommendations address the creation of an impact assessment strategy, focus on assessing the impact beyond narrow economic outcomes, and the creation of a central quantitative analysis unit to inform innovation policy.

The **second set of recommendations** addresses the opportunity to further elevate Denmark's innovation performance by **outlining an overarching innovation strategy**. Despite many individual strategies and action plans, Denmark currently lacks such a strategy, which is limiting the country's ability to create positive, system-wide effects from the alignment of individual innovation policy actions.

Putting an ambitious innovation strategy in place would enable: (1) optimisation of existing activities, programmes and institutions, (2) stronger alignment of areas with the highest potential impact, (3) more systemic dialogue and collaboration, and (4) stronger focus on areas of innovation in which Denmark has clear strengths, including non-science-driven areas.

Such a strategic approach also demands new, more ambitious policy approaches, such as mission-oriented policies, and greater consideration given to new governance structures (i.e. an innovation agency and a national innovation council as a strategic decision-making body).

Where to from here?

What can Denmark do to translate these ideas into action? While the ten recommendations can be implemented within current budgets and structures, revamping the strategic ambition will require a high level of political support.

The key question that Danish decision-makers have to address is whether they see the need for action, in particular at the strategic level. The Danish innovation system is strong, and despite the challenges the report has identified, there is no burning platform or impending crisis. Instead, the costs of inaction are weighed up in lost opportunities and a gradual erosion of Denmark's existing position in a global and increasingly competitive landscape.

For further information:

[The Final Report of the Peer Review of the Danish Research and Innovation System](#)

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