

Governance and Institutional Development for the Public Innovation System

The World Bank's recommendations on the governance structure of Bulgaria's innovation system are provided in great detail in the draft version of the Report "*Inputs to Bulgaria's Research and Innovation Strategies for Smart Specialization (RIS3 Report)*" of February 2013. The proposed governance addresses concerns associated with horizontal coordination (i.e., creating a National Innovation Council (NIB)) and problematic issues associated with policy implementation and the delivery of innovation support instruments¹. The proposal was incorporated in the draft RIS3 developed by the Ministry of Economy and Energy (MEE) with World Bank support, in the period April-June 2013.²

During the meeting with the World Bank Innovation Team on September 17, 2013, Deputy Ministers Ana Yaneva, Yunal Tasim and Krassin Dimitrov of MEE, while taking into consideration the need to incorporate key missing functions in the governance of Bulgaria's national innovation system, (aligned with the recommendations of the RIS3 Report, Chapter 3); requested that the proposed governance and institutional framework is built upon strengthening existing public bodies, rather than creating new ones, such as a NIB and stand-alone innovation implementation agency etc. The MEE request considers a different institutional structure than the one discussed during the preparation of RIS3 and can be summarized as follows:

- i) Develop the strategic advisory, strategic intelligence including prospective foresight, and consensus building functions of the Innovation System in a renewed National Innovation Council.
- ii) Expand the role of the Council on Development, headed by the Prime Minister, under auspices of the Council of Ministers, to coordinate the different components of the innovation strategy; i.e., business innovation, research, technology development, human capital formation, financial sector development, digital agenda, and rural and agricultural innovation.
- iii) Consolidate SME promotion and the business innovation program in a single agency by expanding the responsibilities of the existing SME agency.
- iv) Consider using a combination of financial engineering instruments and grants to promote the modernization of SMEs, along with a more ambitious role for the National Development Bank vis-à-vis the scheme implemented by JEREMIE.

¹ The proposal of February 2013 corresponds to Output 1i defined under the RAS Agreement between the World Bank and the Ministry of Economy Energy and Tourism of July 26, 2012, namely "National Innovation Council governance recommendations report". The NIB proposal was discussed several times with partners from MEET in the period December 2012 –April 2013.

² The draft RIS3 presented by MEE at the meeting of the National Innovation Council on July 11, 2013 omitted the proposal of creating a NIB and implementation agency.

During the meeting, the World Bank stressed the need to take immediate action to strengthen Bulgaria's position on governance in preparation for the upcoming negotiations with the EU on the Operational Program Innovation and Competitiveness for 2014-2020.

The following sections of this letter present an action plan for immediate implementation that is consistent with policy guidance provided by the Deputy Ministers. The World Bank will also develop a detailed report on governance consistent with the new policy orientation, in accordance with the provisions for amending the Reimbursable Advisory Services Agreement between the Government of Bulgaria and the World Bank of July 26, 2012.

Action Plan

1. Transformation of the National Innovation Council (NIC) into a Strategic Advisor to Implement RIS3

1.1 Overall responsibility of the NIC

The National Innovation Council (NIC) will serve as advisory council to the MEE, and provide policy guidance regarding the National Innovation Strategy, its implementation progress, and any new challenges that may emerge or be identified during monitoring and evaluation. A critical role of the NIC will be to contribute to the creation of a shared strategic vision through a process of consensus building to raise society's awareness of the long-term benefits of research and innovation.

The NIC will focus on long-term issues and trends in areas relevant for the development of the National Innovation System and sector innovation strategies, particularly in key technology areas. The Council's long-term focus will reduce inconsistencies in policymaking generated by the political cycle and the resulting short-term horizon of many policy decisions.

Technology road mapping

The NIC will also oversee the process of establishing targeted innovation policies and identifying initiatives and sector action plans under RIS3. As a first step, it is proposed that the NIC undertakes a technology road mapping exercise for five key sectors—ICT, cultural and creative industries, food processing, machine building and mechatronics, and pharmaceuticals—identified as having important potential for innovation dynamics, exports, rapid productivity growth, and high-skill employment. The goal of the road mapping exercise would be to identify critical collaborative actions by the public and private sectors to remove bottlenecks to development of those sectors. Following the road mapping, the NIC would identify an action plan for each sector.

1.2 Restructuring of the NIC

To play a constructive role in advising the MEE on innovation policy and strategy, NIC's corporate governance will need to be modified where the current Council of NIC of 16 members shall be transformed into a smaller and more independent council composed of 12 members. The new

council would have a function of an Advisory Council comprised of members who are experts in their respective fields and do not represent narrow corporate or partisan interests.

At least 50 percent of the council's members should have expertise in policies related to one or more of the following areas: science and technology for innovation (STI), cluster analysis, human capital for innovation, research for innovation, financial instruments for developing high-growth innovative business, and/or technology absorption by SMEs. The other 50 percent should be business leaders in the areas of venture and seed capital financing, and high-tech and traditional industries, who participate as individuals and not as representatives of any association. Two of these members should also have significant reputations as researchers in engineering or applied science at a university or BAS, with demonstrated experience in patenting and transferring technology to business in Bulgaria or abroad. Another of the business leader group should be a past leader of a prestigious higher education institution; and other a past leader of a BAS laboratory. In addition, the council should have four non-voting members: deputy ministers of the MEE of Education, Transport and Telecommunication, and Agriculture and Rural Development (they would participate in the council only with voice rights). The members of the council would be appointed by the Prime Minister for six year periods with overlapping tenures, with half nominated by the Minister of the MEE and half by the ministries of Education, Transport and Telecommunication, and Agriculture and Rural Development (two apiece). The president of the council would be appointed and serve at the pleasure of the Prime Minister, would receive remuneration, and would have to dedicate at least one-third of his/her time to the function.

A critical issue for the council will be how to influence the decision making of stakeholders inside and outside of government. Cross-country examples show that successful advisory councils have their roles clearly established in primary legislation, and are given the authority to conduct strategic intelligence studies such as foresight analyses, and are able to disseminate them through a well-functioning secretariat. It is proposed that the NIC has a small technical secretariat, consisting of three professionals and one administrative staff different and independent from the MEE's current secretariat (Directorate of Investment and Innovation), that would contract consultants to carry out studies and disseminate their findings. The council would be also able to form ad hoc committees to generate proposals in specific matters. The council should meet at least once every two months.

Ideally, the council's members would be appointed by mid-November, in time to make a formal presentation on RIS3 and the OPIC at the European Commission meeting with the endorsement of the EC, the NIC would then proceed to oversee and advise on the technology roadmap for the five key sectors, to begin to move the country effectively in the direction of smart specialization.

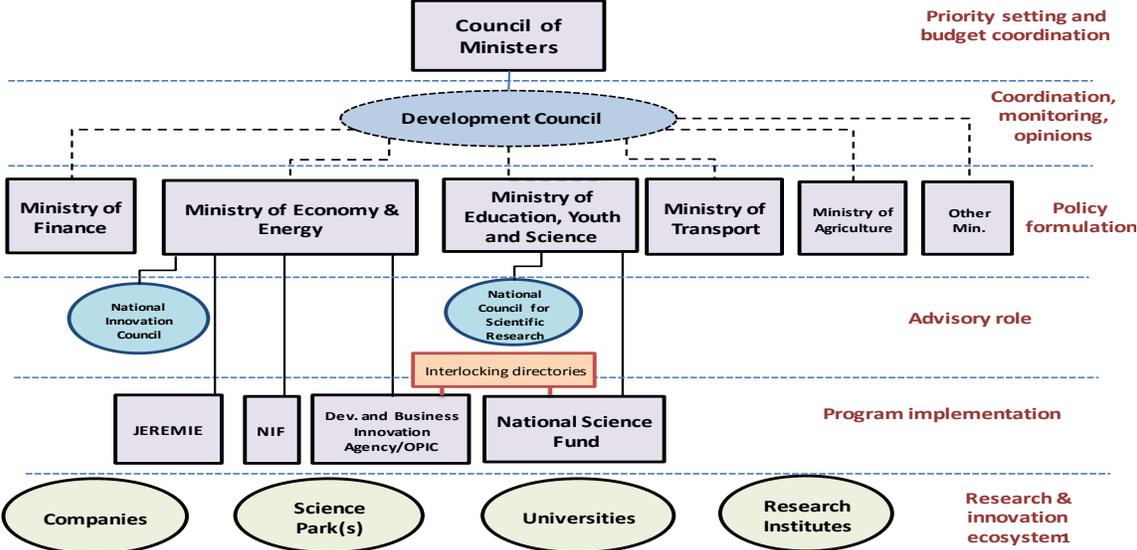
2. Expansion of the role of the Council on Development as the main policy coordinator in innovation, research, human capital, and the digital and sectoral innovation agenda

With Bulgaria's innovation system with separation between Innovation and competitiveness policy on the one hand and research and human capital formation on the other, and with the responsibility for innovation policy spread across several sectoral ministries (Ministries of

Transport, Telecommunication, and Agriculture) it is very challenging to ensure horizontal coherence between programs oriented to business innovation and development, and those seeking to promote ST&I and advance human capital formation in specific sectors. Therefore, the existing Council on Development (CD) should be given responsibility for coordinating these programs at the ministerial level, as well as for integrating the different sectoral innovation agendas. It is proposed that the technical secretariat within the Council of Ministers serve as the executive arm of the CD, with a specific director responsible for coordinating strategy for business innovation, cluster development, human capital formation, and applied research.

The first task of the CD would be to ensure that the different Operational Programs for the 2014-2020 funding cycle are coherent, and that specific mechanisms are developed to coordinate implementation across ministries and implementing agencies. The RIS3 and the OPIC should be presented to the NIC for review before they are submitted to the CD for approval. The periodic annual reports and the evaluations of the RIS3 strategy and OPIC would follow the same procedure.

Innovation System Governance



3. Technology Roadmaps for Cluster Development

The MEE will have initial responsibility for developing technology roadmaps for the five key sectors, until a new agency for innovation and business development is created and assumes that role. The NIC will assess the roadmaps and forward sector-specific measures for implementation to the MEE. The Ministry will then present an action plan to the CD for approval and allocation of responsibilities across different ministries.

4. Structuring an Executing Agency: Innovation and Business Development Agency

To overcome operational constraints related to coordination and implementation, OPIC should be implemented by a specialized, stand-alone agency that provides the public services needed to support innovation. Unlike a policymaking entity, the implementation agency would accumulate expertise in the detailed design of specific programs and instruments proposed by the ministries. The separation of implementation from policymaking will prevent excessive political influence on technical tasks.

The implementation of business innovation programs has some particular characteristics which differ from other public services. These programs require complex technical evaluations, a broad understanding of business innovation processes, and informed judgments about how to handle the risk of capture by beneficiaries. A stand-alone agency can help to get the governance of these programs right, and ensure transparent and efficient implementation and alignment with policy goals.

Some countries have combined innovation promotion activities and broader business promotion functions in the same agency (e.g., targeted promotion of R&D and technology-intensive FDI; start-up and long-term financing mechanisms for SMEs; upgrading SME management and promotion of linkages with world-class corporations).

Combining innovation and business promotion functions can reduce coordination effort, make it easier to tackle systemic failures, and facilitate a more comprehensive strategic approach to business development and innovation. In Bulgaria, where the speed of implementation is critical, it is proposed that the role of the SME support agency be expanded to include business innovation, and that it be renamed the Innovation and Business Development Agency. The agency council should be comprised of innovation experts appointed by the Minister of Economy and Energy.

The Ministry of Education Youth and Science, for its part, has its own separate body to promote research and advanced human capital—the National Research Fund (NRF), with its own council. It is proposed that the two implementing entities - Innovation and Business Development Agency and the NRF - have interlocking councils i.e. coordinate and share some common directors responsible for overseeing the coherent design of instruments across institutions and sectors. It is proposed that the Minister of Economy and Energy chair the Innovation and Business Development Agency Council, and that the Minister of Education Youth and Science chair the NRF.

Proposed innovation initiatives should be reviewed and approved by experts in the relevant sectors, and each implementing agency. The two entities should be required to publish information about the execution of each program on its website, except for confidential information on intellectual property. Each implementing agency should be subject to a comprehensive independent evaluation every four years and an impact evaluation of each program.

5. Performance Contracts for Strengthening the Implementation Agencies

Performance-based management agreements have been used to improve performance and outcomes of public services in different OECD countries. The contracts also include goals for capacity building, as measured by the fulfillment of intermediate and outcome indicators, as well as monetary and other incentives for high-performing personnel. The World Bank strongly recommends that a performance-based management agreement be developed with the Innovation and Business Development Agency, subject to a special labor regime in which employees from certain level up could have a variable component of remuneration. The agreement could be signed by MEE after approval and review by the CD and the Ministry of Finance. The new institutional structure would have to be created by law if a special labor compensation scheme is to be implemented.

6. Institutional specialization for development of financial instruments for business modernization and high-potential innovative businesses.

The Government's interest in strengthening the role of the National Development Bank (NDB), could lead to an interesting division of labor with the JEREMIE program, with JEREMIE directly implementing equity instruments for the development of high-potential innovative businesses, and the NDB specializing in developing and promoting debt financing for SMEs through existing and new intermediaries.

Under this scenario, the direct implementation of JEREMIE would be focused on equity and quasi-equity financing and associated non-financial support to entities specialized in the early development of high-potential business in dynamic technology sectors. The NDB would focus on developing financing mechanisms for SMEs across all sectors of the economy through lending to commercial banks, established financial cooperatives and leasing companies, and mutual aid societies. The schemes could guarantee funds to extend term financing and reduce real guarantee requirements. Such mechanisms would allow the modernization of the SMEs.