Multi-stakeholder policy discussion on the main outcomes of the Innovation Performance Review of Kazakhstan

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Outline

- Ch2: National Innovation System and Innovation Governance
- Ch3: Framework conditions, innovation policies and instruments
Ch2: National Innovation System and Innovation Governance

Chapter structure
- Theoretical presentations of NIS, RIS, SIS, exemplification of NIS in Kazakhstan.

Suggestions for improving the chapter structure
1. **NIS:**
   - describe complementary innovation models like the Triple Helix that are better suited
to explain developments in University (e.g. Entrepreneurial University, linkages with
industry and government).
   - Provide better explanation of 3GU and how it is different from the TH

2. **RIS and SIS:** further development of key features, so as to make clear the specific
characteristics of each. RIS and SIS are not NIS on a mini-scale of a region or a sector.

3. **NIS in Kazakhstan:**
   - More details on NIS to better connect with the recommendations
   - Focus on the institutional-set up and linkages between components (policies to be
addressed in Ch2) –include brief presentations of institutions from the other chapters,
focus on roles, functions, linkages
   - Match between the description and the components presented in Fig. 2.1
   - Revise Fig. 2.2 to better emphasise the horizontal and vertical coordination between
institutions, at three levels: political, operational, RDI performers
   - Introduce here descriptions of RIS from Ch2, Ch6.
   - Brief description of Kazakhstan SIS would be helpful to better connect with theory
Recommendation 2.1

The authorities need to undertake concentrated further efforts to develop a full-fledged, modern NIS on the basis of a systemic assessment of linkages and connectivity of the system and the market context in which innovation stakeholders operate. Systemic policy efforts need to pay particular attention to:

• strengthening the connectivity between various components of the NIS through horizontal instruments that facilitate linkages, including public support to coordination and risk-sharing mechanisms;
• the mechanisms that translate consumer demand into actions supporting innovation;
• the development and upgrading of a market infrastructure supporting the innovation process, including appropriate innovation services; and
• advancing non-technological forms of innovation, in particular in the services sector, which is critical for the overall performance of the economy.

Better connection between the recommendation and presentation of Kazakhstan situation in the report

- How should the systemic assessment of linkages be made? Importance of a high-level horizontal coordination mechanism (e.g. NIC)
- More details on risk-sharing mechanisms
- More details on demand-innovation policies (see Technopolis Report 2011)
- Innovation in the services sector (technological or not) is not described in the chapter, so the recommendation appears disconnected from the text
Demand side innovation policies

Public procurement
- Public procurement of innovation
- Pre-commercial public procurement

Regulation
- Use of regulations
- Standardisation

Supporting private demand
- Tax incentives
- Catalytic procurement
- Awareness raising campaigns

Systemic policies
- Lead market initiatives
- Support to open innovation and user-centred innovation

Recommendation 2.2

Set the target of reducing the regulatory burden on SMEs as a priority policy goal of lasting nature. Steps to achieve this could include the following:

• Conduct, in consultations with SMEs, annual surveys of factors that hamper innovation and entrepreneurship with a special focus on regulatory and administrative burden;
• Identify twelve recommendations for improvement based on each annual survey to be implemented within one year (one per month);
• Recommendations of the annual surveys may also include the improvement of the overall market environment and the conditions for fair competition; and

Particular attention both in surveys and in follow up recommendations should be paid to the challenges faced by innovative start-ups and the innovation activity of SMEs.

This recommendation addresses entrepreneurship policies, so it would be better placed in Ch2 - Policies. Could include more of the specific recommendations made on pp. 8-9 (entrepreneurship training at different educational levels, start-up support, etc.)
**Recommendation 2.3**

The role of universities and other knowledge generating organizations in the NIS should be strengthened by boosting their capacity to transform ideas into innovation projects and strengthening links with other innovation stakeholders. The authorities should consider:

- The preparation of a practical plan for the transformation of the top research universities into 3GU based on a detailed assessment of existing constraints and possibilities;
- The merging of some existing research institutes with universities;
- Introducing targeted measures for the encouragement of entrepreneurial activity in research and education organizations. This could include the introduction of entrepreneurship courses in universities, support to spin-offs and other academic ventures, and, when suitable, the creation of associated technoparks; and
- Support to the creation and strengthening of marketing departments in research universities to sell know-how and establish joint programmes with enterprises.

- An evaluation of universities’ performance and accreditation to establish the top research universities. Some universities should be recognized as teaching institutions and funded as such.
- Evaluation and accreditation of R&D institutes also necessary before merger with universities. Other options also possible, e.g. privatization or closing down. Restructuring decisions difficult to make if coordination of institutes is split between several ministries
- Technology transfer offices/industrial liaison offices more appropriate name than marketing depts.
Recommendation 2.4

Undertake steps to strengthen the horizontal axis of the innovation policy mix with a view to facilitating the coordination of innovation policies and ensuring their effective design and implementation. To this effect the authorities could consider:

- Creating a National Innovation Council (NIC), where representatives of the business sector and the relevant ministries would be equally represented. The NIC could act as a central advisor of the government on innovation policy, with a wide remit that would include also non-technological aspects and the overall framework conditions for innovation. The NIC should report to the highest level of government to ensure effective oversight of the NIS;
- Empowering the new National Agency for Technological Development (NATD) with the functions to act as the leading executor of the innovation policy (the Innovation Executive). The Agency should be entrusted with the coordination of the implementation of programmes in different innovation-related areas and given sufficient operational freedom to achieve policy goals in an efficient manner; and
- Undertaking a gradual shift in the innovation policy mix of widening and broadening the scope of horizontal policies and instruments while at the same time reducing the coverage of vertical ones. This shift should be accompanied by a corresponding redeployment of the public financial resources underpinning the two types of interventions.

- This seems to be an extension of R 2.1 on the horizontal coordination → suggest combining it with 2.1 and focus on this aspect
- Take the market/services focus out from R2.1 and make it a separate recommendation R2.4 on this aspect
Ch3: Framework conditions, innovation policies and instruments

Chapter structure

- Overview of innovation support conditions (business environment)
- Presentation of innovation strategies and programmes, including the regional level and brief evaluation in terms of their relevance and effectiveness.

Suggestions for improving the chapter structure

1. Overview of innovation support conditions:
   - Focus on (i) business environment, (ii) entrepreneurship and (iii) fair competition. Human resources better suited in Ch4.
   - More details on FDI (what are the main receiving sectors? Who are the main foreign investors and the nature of the investments? Combine with FDI discussion in Ch4, p.44)
   - Discussion on entrepreneurship could be merged with 2.2.1 and revised, including more details on SMEs and entrepreneurship, start-ups, entrepreneurial culture
   - Discussion on the role of a national Competition Council or similar, in charge with supervision of competition rules, and existing competition rules.

2. Presentation of innovation strategies and programmes
   - Link between the policy-making process (e.g. the two strategies), and the policy implementation process (e.g. programmes). Who elaborated the strategies, who is in charge with implementing the programmes described- is the policy-making separate from policy implementation and policy evaluation?
   - Regional institutional set-up to be discussed in Ch2; regional policies here.
   - More details on policy evaluation process: responsible bodies, previous evaluations, how have they been made, policy feedback, impact on annual funding for ministries
Recommendation 3.1

The authorities should engage in a systematic policy course of addressing existing impediments to entrepreneurial activity and further improvement in the business environment aimed at making it more conducive to innovative entrepreneurship (see recommendation 2.2).

- See R2.2 – suggest merger with this one and move all the discussion on entrepreneurship policies from Ch2 to Ch3.
Recommendation 3.2

Building on previous efforts, the authorities should strengthen the coherence of innovation initiatives by putting in place mechanisms that:

- Ensure that innovation initiatives are aligned with strategic objectives and with the results of foresight programmes;
- Facilitate the coordination of actions by different organizations during the design and implementation phases at different levels;
- Encourage a bottom-up flow of information and ideas and their integration into innovation initiatives, through a consultation process.

The emphasis of this recommendation is the policy priority-setting mechanisms and the coordination in the policy design and implementation. These aspects are only minimally addressed in the text, need to be further developed to justify the recommendation.
Recommendation 3.3

The authorities could complement existing actions to increase the demand for innovation through:

• Measures to stimulate market-driven demand for innovation, including by establishing competitive domestic markets and eliminating existing dominant positions, and enhancing linkages and connectivity among innovation stakeholders;
• The introduction of new demand-oriented public support schemes such as a voucher system for R&D and innovation, as well as public procurement targeting chains of innovation activity; and
• The extension of existing demand-oriented coordinating and matching mechanisms such as those used in the machine-building industry to other sectors.

See the 2011 Technopolis report for a broader discussion on demand innovation policies and ways to stimulate them, various country examples.
Recommendation 3.4

Public support programmes should place a special emphasis on the establishment of a conducive environment for the emergence of new enterprises and especially New Technology-Based Firms (NTBFs). Measures could include:

• Putting in place a system of measures encouraging the establishment of innovation-based university start-ups and spin-offs and supporting them through their early stages;

• Mechanisms to increase the participation of new and existing NTBFs in public procurement activities and other existing programmes like the Business Roadmap 2020; and

• Creation of the status of "Young Innovative Enterprise", which would include tax incentives without sectoral limitation as well as other measures of support.

Stronger emphasis on the measures to support new enterprises, especially university spin-offs and NTBFs, in the early stages (e.g. Financial mechanisms – connection to ch.7.)
The authorities should continue their efforts to reach the regions in their innovation-support initiatives and the implementation of regional innovation strategies. These strategies should:

• Ensure consistency with national objectives and programmes;
• Be integrated at the national level, so that the complementarities and interdependencies between regional strategies can be supported by national policies.
• Be based on a deep analysis of the potential of each region, in order to develop existing strengths and establish priorities;
• Rely on the active participation of main innovation stakeholders, both in the formulation and implementation of strategies, so that potential opportunities and the necessary actions to exploit them are identified.

Recommendation 3.5

Ensure clear budgets and/or funding instruments for the regional strategies, apart from the broad competition-based national programmes.

Provide adequate staff support and management skills for the agencies in charge with the implementation of regional innovation strategies.
Recommendation 3.6

The authorities should put in place appropriate mechanisms to monitor and evaluate the results of policy programmes and feedback the evaluation outcomes into the design of new initiatives. This could include:

- A monitoring system that includes both output and impact indicators;
- A common evaluation mechanism for all innovation-related programmes;
- The participation of independent external reviewers in the process; and
- The integration of regional information to provide a comprehensive picture and facilitate comparisons.

Ensure a stronger link with the policy-making process and the policy implementation process, stronger impact of evaluations on annual funding for the ministries in charge and of RDI performers...
Recommendation 3.9

Building on existing initiatives, the authorities should retain a strong focus on education and training on innovation policies. In particular, they should pay attention to:

• Raising the profile and attractiveness of careers in R&D to university graduates;
• The importance of encouraging the study of technical subjects in national scholarships; and
• The promotion of access to information and use of ICT technologies as an enabling tool;
• The need to address regional requirements;
• The understanding of innovation issues among public officers, which could be facilitated by a standard training course on public administration questions related to innovation and technological development.

Would be better fit under Ch4 – focus on human resources.
THANK YOU!

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