



Economic Commission for Europe**Committee on Innovation, Competitiveness and Public-Private Partnerships****Sixteenth session**

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Implementation of the Programme of Work – Team of Specialists on Innovation and Competitiveness Policies**Findings and recommendations from the Interim Sub-regional Innovation Policy Outlook 2022: Eastern Europe and the South Caucasus****Note by the secretariat¹****I. Introduction**

1. The UNECE Committee on Innovation, Competitiveness and Public-Private Partnerships (CICPPP) endorsed the decision to undertake the Sub-regional Innovation Policy Outlook (IPO) project at its twelfth session, which took place from 26 to 28 May 2018. The pilot IPO for Eastern Europe and the South Caucasus (EESC) was published in 2020 (henceforth referred to as IPO 2020). The IPO assessed the scope and quality of innovation policies, institutions, and processes across Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, and Ukraine. The project identified strengths and weaknesses in innovation policy governance, enlarges the evidence base for mutual policy learning, and makes recommendations on how to improve innovation policies, institutions, and processes, and enhance productivity and competitiveness. The IPO took into account the IPO review countries' shared features that set them apart from other countries at comparable output levels, such as strong institutional legacies, high levels of educational attainment, and a legacy of frontier research, to guide policy and institutional reform efforts.

2. Given the success of the pilot IPO 2020 and the positive feedback on its value from beneficiary countries, the UNECE secretariat aims to repeat full-fledged IPO assessments in EESC countries at regular intervals of three to four years, and is working to mobilize the extra-budgetary funds required to do so. In response to member States' demand, the second IPO will allow countries to track their own policy progress and benchmark their performance vis-à-vis other EESC countries in a peer-learning context.

3. To complement the analysis from the full-fledged IPO assessments (2020, 2024) and maintain momentum, the UNECE secretariat is developing an Interim IPO (IIPO) assessment for EESC countries. The IIPO assessment contains an update on sub-regional economic and innovation developments and includes two in-depth chapters on important topics of concern to the beneficiaries, with concrete sub-regional recommendations. The IIPO was developed based on the outcomes of several meetings of the IPO national focal points in March 2021,

¹ This document has not been formally edited.

where national EESC authorities and other stakeholders reflected on the outcomes of the first IPO and agreed on the scope for the IIPO. Two sub-regional priorities were identified for in-depth consideration in the 2022 IIPO:

- (a) enhancing science-business linkages in the EESC sub-region; and
- (b) using innovation-enhancing procurement (IEP) as a tool to foster innovative activity.

4. The findings and recommendations of these two in-depth chapters were also based on the results of extensive dialogue and consultations among leading subject matter experts, government officials, academia, the private sector, UNECE, and other innovation stakeholders at dedicated IPO policy dialogue sessions from September 2021 to June 2022.

5. The chapter on IEP also draws on the international good policy practices on “Innovation-enhancing Procurement for Sustainable Development” adopted by the Committee at its fourteenth session in 2021 (ECE/CECI/2021/5) and responds to the 69th and 70th Commission session themes of circular economy and digital and green transformations.

II. Methodology and project steps

6. The Interim Sub-regional Innovation Policy Outlook included a desk review process that lasted from January 2021 to October 2022. The desk review process also made use of discussions and exchanges at dedicated IPO policy dialogues attended by more than 100 public and private stakeholders and follow-up bilateral interviews with EESC policymakers. The draft text then underwent a thorough peer review from December 2022 to February 2023, during which the IIPO was submitted for comments to sub-regional government institutions and a group of independent international experts for feedback. The findings and recommendations were also endorsed by the EESC Governments at the Seventh Meeting of the IPO National Focal Points and other ECE member States at the 14th Session of the Team of Specialists on Innovation and Competitiveness Policies in November 2022. The final text reflects the outcome of bilateral and multilateral discussions over the course of the project as well as other comments and suggestions from various stakeholders.

7. Following the incorporation of changes to reflect the review process, the IIPO was finalized in March 2023. The IIPO will be officially launched as part of the sixteenth session of the Committee on June 1 2023.

8. The UNECE secretariat would like to thank the Government of Sweden for its generous extra-budgetary funding for the project and the national focal points of EESC countries for their continuous support during the project’s implementation.

III. Findings

9. The IIPO highlights that EESC countries’ need to reinforce their efforts towards achieving innovation-led sustainable development. While countries in the EESC region have made significant progress towards strengthening sustainable growth in line with the United Nations Agenda 2030, they are not on track to reach the targets outlined in the Sustainable Development Goals (SDGs). Recent crises, such as the COVID-19 pandemic and conflicts, have had a serious impact on economic development, health, and security, highlighting remaining structural weaknesses of their economies, such as low levels of productivity and diversification and lack of competitiveness in more knowledge-intensive sectors.

10. The IIPO emphasizes that fostering innovation will require effective innovation policymaking, governance, and coordination. EESC countries have a strong foundation for innovation-led growth, including a rich research legacy, a well-educated workforce, and pockets of innovation excellence in sectors such as ICT services exports. However, there is a significant untapped potential for innovation in the EESC sub-region, as innovation is not yet happening systematically across these economies. Many small and medium-sized enterprises (SMEs) lack the organizational and managerial capacities to absorb external knowledge and to identify opportunities for innovation. Strengthening innovation policies

and support mechanisms within national innovation systems is imperative to create a conducive environment for business and innovation activity.

Building relationships and knowledge linkages between science and business in the EESC

11. Science-business linkages (SBLs) are one of the most important elements to make a national innovation system work effectively and facilitate effective knowledge exchange and leverage the potential for experimentation and commercialization. An important challenge to these linkages in the EESC sub-region is the mismatch between the capacities and resources of the public sector and the needs of the private sector. As such, the focus of SBLs needs to shift from prioritizing the commercialization of public research and development (R&D) results towards also emphasizing the opportunities that lie in adapting public research to the needs of local innovators. This will ensure that SBLs facilitate continued technological upgrading and innovation in the sub-region. To achieve this, EESC policymakers should strengthen the capacities of public research institutions to adapt to industry needs, enhance the absorptive capacity of the private sector, and introduce policy mechanisms that foster innovation demand.

12. Intermediary institutions, such as incubators, technoparks, and accelerators, can play a crucial role in promoting collaboration and facilitating technology transfer, both domestically and internationally, in the context of science-business linkages. However, the situation in the EESC sub-region is characterized by fragmented initiatives and lack of a common approach to enhancing SBLs among public actors.

13. The strength of SBLs also influences the effectiveness of technology transfer organizations. All EESC countries have either built or supported organizations engaged in promoting SBLs, but their success varies widely. The challenge in all cases is to couple the support in physical infrastructure with funding and support in soft services, which can facilitate the upscaling of newly incubated ventures. The commercialization of science and technology (S&T) potential is often institutionally supported by technology transfer offices (TTOs); however, these face numerous problems of relevance and impact. Promoting SBLs requires a better understanding of contexts and trends through analysis of data on specific forms of collaboration.

14. To boost science-business linkages, targeted action is required on the demand side (firms), the supply side (academic R&D sector and education system), and in terms of intermediary institutions between them. The IIPO recommends the following steps to facilitate SBLs:

(a) From the point of view of innovation demand, the IIPO finds that few initiatives exist to support business R&D, and recommends introducing innovation vouchers, exploring innovation-enhancing procurement mechanisms, and providing private firms with access to government funding for R&D. To leverage the potential of foreign direct investment (FDI) for spurring innovation, member States should negotiate cost-sharing partnerships with investors, implement a strategic approach to linkages between higher education and the IT sector, and internationalise public research organizations (PROs) and universities to enhance their linkages with FDI and local firms.

(b) On the supply side, member States should enhance the R&D capabilities of domestic universities and PROs to meet the technology upgrading needs of the local economy. The IIPO recommends differentiating between research-based and vocational education-based universities and to assess which ones can be engaged in short- and medium-term research, as well as long-term research to achieve the SDGs. PROs should be incentivized to have closer relationships with industry by making income and induced investment from industry part of their key performance indicators.

(c) The IIPO further recommends enhancing technology transfer by strengthening intermediary institutions through a multifaceted approach, including creating licensing rules, developing R&D centres of excellence, enhancing TTOs at PROs, initiating co-investment risk capital funds, evaluating financing mechanisms, adopting existing guidelines that have been adopted at the regional level.

Using the large potential of public procurement to create demand for and incentivize innovation

15. The IIPO highlights the potential of innovation-enhancing public procurement (IEP) in driving innovation in the private sector, given the large share of Gross Domestic Product (GDP) represented by public procurement. IEP can play a crucial role in promoting sustainable and long-term growth and development in several areas, such as e-health, pharmaceuticals, energy, environmental sustainability, circular economy, transport and logistics, security and digital content. In the EESC region, the public sector's large purchasing power and central role in mitigating societal grand challenges provide an appropriate context for implementing IEP and stimulating innovation demand.

16. IEP is not yet fully integrated into procurement practices in the EESC countries. There are still obstacles hindering the implementation of IEP in the EESC, such as the absence of appropriate legal frameworks, inadequate connections between science and business, and the incapacity to recognize and transform needs into procurement tenders. To help member States address this challenge, the IIPO proposes an IEP Road Map, a benchmarking and training tool, as a device that member States could use to implement a comprehensive IEP policy in the sub-region. The Road Map presents a set of steps to follow, including consolidating the use of pre-commercial procurement, adopting IEP as a combination of pre-commercial procurement and regular procurement, and adopting a functional and circular approach to IEP. The tool expands the understanding of public procurement beyond innovation to other areas such as the circular economy and sustainable development.

17. IEP requires coordinating policies across several areas. Yet, only a few EESC economies have introduced IEP as a strategic policy instrument. To promote the strategic integration of IEP, the IIPO recommends including the tool in the political agenda, making it a strategic priority in all public sector domains, creating a policy framework and legal basis for IEP, improving professionalization and expertise of public buyers, creating a national competence centre for IEP, and facilitating mutual learning and exchange of experiences.

18. To overcome the limitations of regular procurement procedures, which prioritize short-term cost-effectiveness over addressing current and future needs, the IIPO proposes using regular procurement to encourage the diffusion of existing best-in-class solutions. This can be done by coordinating and bundling existing demand through e-procurement platforms and increasing the participation of universities, SMEs, and start-ups, while centralizing standard purchases to benefit from economies of scale. The IIPO also suggests using alternative criteria beyond short-term cost-effectiveness to select solutions that address current and future needs. Moreover, expanding the use of most economically advantageous tender (MEAT) criteria and life cycle costing to evaluate bids can improve the effectiveness of procurement processes.

19. Current procurement methods focus on technical specifications and short-term costs, missing opportunities to specify challenges or needs in functional terms. The IIPO recommends that the governments focus on the targets and challenges to be overcome and seek value according to the functional requirements as opposed to setting up rigid bid criteria.

20. Pre-commercial procurement (PCP) could also be a useful tool to steer the development of new innovative solutions and enhancing IEP. PCP is a process by which public authorities can incentivize the development of new technologically innovative solutions that can address their specific needs, with three steps of solution exploration, prototyping, and testing, aiming to encourage companies to create R&D-based solutions to societal challenges. The IIPO suggests developing a phased approach to issuing PCP calls for different stages of the process from research to prototyping, allowing additional bidders to enter at different stages and sharing knowledge created at prior stages with new entrants. The IIPO also explains that IEP can be established as a combination of PCP, innovation partnerships, and regular procurement, with governments acting as intelligent customers and engaging bidders in early-stage dialogue while supporting public-private partnerships, including with SMEs and start-ups.

21. To support the development and introduction of IEP, member States should consider the following recommendations from the IIPO:

(a) The IIPO emphasizes establishing IEP at a strategic level in national policymaking. Actions include promoting IEP in the political agenda, making it a priority in all domains of public sector activity, creating a policy framework, developing a legal basis,

improving professionalization, establishing a national competence center, and facilitating mutual learning. Member States should also use regular procurement to encourage the diffusion of existing best-in-class solutions. Coordinating and bundling existing demand, using alternative metrics, and expanding the use of MEAT criteria and life-cycle costing can help improve procurement efficiency.

(b) Introducing PCP to facilitate the participation of SMEs in IEP is another crucial step to encourage innovation. This involves developing a phased approach for PCP calls, ensuring additional bidders can enter at different stages, and aligning PCP with complementary policies supporting R&D, technology transfer, and commercialization.

(c) The IIPPO highlights several aspects that may assist member States in effectively implementing IEP. Governments can stimulate private innovation through acting as intelligent customers, communicating their needs to the market, consulting the market before tendering and engaging with suppliers. Establishing functional procurement may also be a useful first step. Setting high standards of functionality, focusing on challenges to be overcome, identifying functional requirements, evaluating bids according to their functional requirements, and mainstreaming circularity and sustainability criteria are all useful steps to take when introducing IEP.

IV. Next steps

22. Next steps for the IIPPO include disseminating the findings and recommendations to EESC stakeholders, including policymakers and practitioners in the innovation ecosystem. The IIPPO can serve as an updated source of policy analysis and recommendations for national governments and sub-national organisations to monitor changes in innovation, identify strengths and weaknesses in institutions and policies, and implement changes. The findings and recommendations of the IIPPO will also feed into the second full-fledged IPO of the sub-region, planned for 2024.

23. UNECE stands ready to continue to support innovation policy in the sub-region through national Innovation for Sustainable Development Reviews (I4SDR) and subsequent national capacity building activities to assist with the implementation of the recommendations emerging from the IPO, IIPPO and I4SDRs.

24. Based on expressions of interest from Governments, the UNECE secretariat is exploring options to carry out IPOs in other country groupings or sub-regions with common characteristics, where such assessments would complement existing innovation policy support.

25. Extra-budgetary funding is critically important, both for carrying out new IPOs and for supporting the implementation of policy reforms identified during the present project. Donors and development partners are called upon to consider providing additional funding. These fundraising efforts also respond to the Office of Internal Oversight Services' recent evaluation of the work of the UNECE Economic Cooperation and Trade Division, which called for ensuring greater sustainability and continuation of activities.