



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

Geneva, 31 May-2 June 2023

Item 4 (a) of the provisional agenda

Implementation of the Programme of Work – Team of Specialists on Innovation and Competitiveness Policies**Progress on the Innovation for Sustainable Development
Review of Ukraine****Note by the secretariat¹****I. Background**

1. UNECE first conducted an Innovation Performance Review of Ukraine in 2013.² Based on an assessment of the country's innovation performance, and informed by international good policy practice developed under the Committee on Innovation, Competitiveness and Public-Private Partnerships, this Review offered recommendations to improve innovation governance, framework conditions and innovation policies, knowledge generation and absorption, industry-science linkages, the financing of innovative enterprises, and international cooperation on innovation.

2. In 2020, Ukraine participated in the inaugural UNECE Sub-regional Innovation Policy Outlook: Eastern Europe and the South Caucasus.³ The Outlook assessed and benchmarked the scope, quality, and effectiveness of innovation policies, institutions and processes relative to sub-regional peers and international good practice, identified common strengths and weaknesses, and recommended policy reforms to address them. Subsequently, Ukraine participated in regular policy dialogues among the national focal points for the Innovation Policy Outlook to discuss the implementation of innovation policy reforms. Ukraine also participated in an Interim Innovation Policy Outlook in 2022 that updated some of the earlier findings and took a more in-depth look at two key innovation policy issues of shared concern to all participating countries: enhancing science-business linkages, and innovation-enhancing procurement.⁴

¹ This document has not been formally edited.

² United Nations Economic Commission for Europe (2013), [Innovation Performance Review of Ukraine](#), New York-Geneva.

³ United Nations Economic Commission for Europe (2021), [Sub-regional Innovation Policy Outlook 2020: Eastern Europe and the South Caucasus](#), New York-Geneva.

⁴ For an update on the status of the Interim Innovation Policy Outlook, see informal document ECE/CECI/2023/INF.2 "Findings and recommendations from the Interim Sub-regional Innovation Policy Outlook 2022: Eastern Europe and the South Caucasus" available at: [16th session of the Committee on Innovation, Competitiveness and Public-Private Partnerships | UNECE](#).

3. In 2022, ten years after UNECE first reviewed Ukraine's innovation performance and policies, the Government of Ukraine requested a new national Innovation for Sustainable Development Review to complement the comparative assessment in the sub-regional Outlook, to assess progress made since the first Review, to analyze how innovation contributes to achieving the country's national sustainable development priorities, and to develop recommendations for further policy reforms in support of innovation for sustainable development in light of good policy practices developed under the Committee.

4. Based on the Government's request, the Committee at its fifteenth session on 2-4 June 2022 included the Review in its implementation plan for work in 2022-2023 (Decision 2022 – 4b.4).

5. Extrabudgetary support for the Review is being provided by the Government of Sweden under the project "Promoting innovation policy capacities in Eastern Europe and the Caucasus".

II. Status of the project

6. UNECE has an established methodology and general structure for its national Innovation for Sustainable Development Reviews, which has been developed and refined in the course of reviews carried out in 2017-2022 with Belarus, Kyrgyzstan, Georgia, the Republic of Moldova, and Uzbekistan. UNECE is in the process of adjusting this standard methodology to meet the needs of Ukraine in the current situation.

7. The Russian invasion of Ukraine is inflicting untold suffering on the Ukrainian people.⁵ It has caused massive destruction of critical infrastructure and has displaced millions of people. The war has set the country back years on its path towards sustainable development. The economy shrank by 30 percent in 2022,⁶ an estimated 30 percent of pre-war jobs have been lost, 40 percent of Ukraine's population need humanitarian aid,⁷ and the impact of the war on the environment could take generations to reverse.⁸

8. All this has profound implications for the country's policy priorities, including in the sphere of innovation for sustainable development, as well as for policy design and implementation. Like the economy overall, the country's national innovation capacity has been damaged severely by the war.⁹

(a) *The innovation system has experienced a large loss of human capital.* In addition to tens of thousands of casualties, over 8 million people have fled to neighbouring countries.¹⁰ Some estimates put the share of the R&D workforce that has left the country at 25 percent.¹¹ More than 3,000 schools and colleges have been damaged or destroyed. Millions of students have had their education disrupted. The capacity for academic research has been affected by the physical damage to research infrastructure and by the loss of human capital.

(b) *The business sector has experienced a significant loss of R&D capacity.* The shrinking economy leaves companies with fewer investible resources. The linkages between science and business, and among businesses, that are so critical for an effective national

⁵ For a recent assessment of the impact of the war on the other 16 programme countries in Europe and Central Asia, see United Nations (2023), Implications of the war in Ukraine for sustainable development in Europe and Central Asia.

⁶ International Monetary Fund (2023), [Datamapper – real GDP growth](#), Washington D.C..

⁷ Office of the United Nations High Commissioner for Refugees (2023), [Ukraine emergency](#).

⁸ United Nations Environment Programme (2022), [The Environmental Impact of the Conflict in Ukraine: A Preliminary Review](#).

⁹ Organisation for Economic Co-operation and Development (2022), [Building back a better innovation ecosystem in Ukraine](#)", Paris.

¹⁰ Office of the United Nations High Commissioner for Refugees (2023), [Ukraine emergency](#).

¹¹ Organization for Economic Cooperation and Development (2022), [Building back a better innovation ecosystem in Ukraine](#)", Paris.

innovation system, have also been severely disrupted, not least because, in addition to those who have fled the country, over 5 million people have become internally displaced.¹²

(c) *Many potential innovators have experienced a dramatic loss in their ability to bear risk.* Innovation is a highly risky activity in the best of times. The economic hardship caused by the war has depleted the resources of many innovators, while the complete uncertainty about how the situation in Ukraine will evolve in the short to medium term is making innovation more risky than ever.¹³

9. The impact of the war also creates unique challenges for policy making, including in the sphere of innovation for sustainable development. These include unprecedented uncertainty about the future, severe constraints on human capacity and fiscal resources, and deteriorating quality and scope of data for ex ante and ex post policy monitoring, evaluation and learning.

10. Nonetheless, it remains true that innovation is one of the most important drivers of sustainable development and will therefore have a key role to play in the economic, environmental and social reconstruction of Ukraine.

11. In fact, the Government of Ukraine is in the process of developing a new national Strategy on Science, Technology and Innovation, as well as a new Roadmap on Sustainable Development. The Review is therefore particularly timely, and every effort will be made to generate insights and recommendations that can inform the above strategic documents.

15. For Ukraine's innovation policy, this suggests two related strategic objectives. The first is to contain the damage to the national innovation system and to adapt it to the current conditions as far as possible. The second is to identify specific opportunities for innovation to contribute to the reconstruction and to "building back better" after the war, to incorporate these into national recovery and reconstruction planning, and to develop scenarios and roadmaps for innovation policy on this basis.

16. Together with the national focal points for the project, the secretariat is in the process of developing a structure for the Innovation for Sustainable Development Review that best serves the above priorities, while taking into account limitations in data availability, the high degree of volatility in the current situation, and the unpredictability of developments in the short term.

17. The Review will focus on (i) providing context by drawing on relevant case studies from other major conflicts or disasters, (ii) identifying options for effective innovation policy making under the current, very challenging circumstances, and (iii) developing a medium-term scenario for policies promoting innovation for reconstruction and, ultimately, sustainable development.¹⁴

18. Accordingly, the secretariat has undertaken desk research on the current and expected impact of the war on Ukraine's economy and innovation system, on the response of the international community to mitigate these impacts, and on examples of post-war reconstruction and the role of innovation therein.

19. The secretariat is in the process of developing a mapping of innovation policy stakeholders in Ukraine as well as of key international partners, together with the national focal points for the Review.

¹² Office of the United Nations High Commissioner for Refugees (2023), [Ukraine emergency](#).

¹³ In its current transition report, the European Bank for Reconstruction and Development analyses the economic and social impact of wars in the last two centuries and the pace and depth of post-war recovery. It finds that recoveries have varied widely, and reconstruction has been particularly difficult when the peace was fragile. See European Bank for Reconstruction and Development (2023), [EBRD Transition Report 2022-23: Business Unusual](#), chapter 1, London.

¹⁴ Incidentally, part of the external financing provided to European countries under the European Recovery Program ("Marshall Plan") after World War II was intended to support productivity increases in recipient countries through technology upgrading, a form of innovation. See Centre for Economic Policy Research (2022): Paris Report on [Rebuilding Ukraine: Principles and Policies](#).

III. Way forward

20. The goal is to align the work on the Review with the work on the two strategic documents the Government is developing in 2023, with the possibility of undertaking additional research and analysis in 2024.

21. Accompanying Ukraine in its efforts to maximize the benefits of innovation for a resilient, sustainable reconstruction is a long-term endeavour. UNECE will seek additional extra-budgetary funding for follow-up support of innovation policy reforms in 2024 and beyond.

22. Fact finding consultations with national innovation policy stakeholders will be conducted in the fall of 2023.

23. A comprehensive external peer review will be carried out to ensure maximum quality.

24. The secretariat will, together with the national focal points, explore the best possible strategy for making the Review's findings and recommendations available to the Government in a timely fashion as inputs into the new Strategy on Science, Technology and Innovation and the Roadmap on Sustainable Development.
