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**Economic Commission for Europe**

Committee on Innovation, Competitiveness and Public-Private Partnerships

**Team of Specialists on Innovation and Competitiveness Policies****Fourteenth session**

Geneva (hybrid), 14 and 15 November 2022

**Report of the Team of Specialists on Innovation and Competitiveness Policies on its fourteenth session****I. Attendance**

1. The Team of Specialists on Innovation and Competitiveness Policies (ToS-ICP) held its fourteenth session on 14 and 15 November 2022.
2. 126 participants attended the session, representing governments, academic institutions, the private sector, non-governmental organisations, and international organisations.
3. The meeting was held in a hybrid format, with participants joining either in person at the Palais des Nations, Geneva or remotely.
4. Representatives of the following ECE member States attended: Andorra, Armenia, Azerbaijan, Belarus, Estonia, Georgia, Germany, Greece, Israel, Italy, Kyrgyzstan, Netherlands, North Macedonia, Norway, Portugal, Republic of Moldova, Russian Federation, Sweden, Switzerland, Türkiye, Ukraine, Uzbekistan.
5. Representatives of the following intergovernmental organizations attended: CAREC Institute, European Commission, Organization for Economic Cooperation and Development (OECD), United Nations Conference on Trade and Development (UNCTAD), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Office for Outer Space Affairs, UN Women, World Intellectual Property Organization (WIPO), World Trade Organization (WTO).

**II. Adoption of the agenda and election of officers (agenda item 1)**

6. The Chair (Mr. Salvatore Zecchini of Italy) opened the fourteenth session of ToS-ICP and welcomed the delegates. The Executive Secretary of ECE, Ms. Olga Algayerova, made an opening statement. She highlighted that, to accelerate progress towards the SDGs, we need innovations that cumulatively create a step-change in the sustainability of entire societies: In short, transformative innovation. The main obstacle to this is not a lack of new technologies or ideas, but rather coordination between disparate innovation actors, as well as broad deployment of successful innovations.



7. The Team thanked the outgoing members of the Bureau for their service, namely:
  - Mr. Salvatore Zecchini, Italy (Chair)
  - Ms. Ani Toroyan, Armenia
  - Ms. Ani Vashakmadze, Georgia
  - Mr. Behruzбек Botirov, Uzbekistan
8. The Team elected the following Bureau members in accordance with the Guidelines on Procedures and Practices for ECE Bodies (E/ECE/1468, Annex III para.V.8. p. 18):
  - Mr. Kjell Håkan Närfelt, Chief Strategy Officer of VINNOVA, Sweden (Chair)
  - Ms. Tatevik Soghomonyan, Acting Head of the Trade Promotion Division of the Market Development Department at the Ministry of High-Tech Industry, Armenia
  - Mr. Sagi Dagan, Vice President, Israel Innovation Authority, Israel
  - Mr. Bunyod Rakhmatullaev, Head of the Global Rankings Division, Ministry of Innovative Development, Uzbekistan
9. The term of office of newly elected officers began at the end of the session.
10. The Team adopted its agenda as contained in document ECE/CECI/ICP/2022/1.

### **III. Substantive segment: Policy dialogue on “Digital and green transformations: Innovation for a sustainable future” (agenda item 2)**

11. In December 2021, ECE member States designated “Digital and green transformations for sustainable development in the ECE region” as the theme of the high-level segment of the seventieth session of the Commission (18 and 19 April 2023), and invited relevant subsidiary bodies of ECE to consider how they may contribute, as appropriate, to this theme within their respective mandates, ongoing work and existing resources.<sup>1</sup>

12. In response to this invitation, the fourteenth session of the ToS-ICP featured a policy dialogue on “Digital and green transformations: Innovation for a sustainable future”, structured around four panels:

(a) Panel 1 defined and explored the nature of transformative innovation, drawing on past examples and looking to the future to identify obstacles and catalysts.

(b) Panel 2 considered how the need for larger societal transformations alters the dynamics and governance of innovation itself. It also examined how the experience of countries that have successfully encouraged transformative innovation can be replicated elsewhere.

(c) Panel 3 launched the UN-ECE Transformative Innovation Network (ETIN), a new ECE initiative funded by the Federal Ministry for Economic Affairs and Climate Action of Germany (BMWK). Participants discussed how ETIN can best contribute to promoting transformative innovation in the ECE region in support of sustainable development and circular economy.

(d) Panel 4 examined policies to promote the transition to sustainable energy, as a case study in transformative innovation.

13. The programme of the policy dialogue is in Annex I. The following paragraphs present a summary of the key takeaways. Further details will be elaborated in a post-session policy paper, which the Team mandated the secretariat to develop as an input into the upcoming

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<sup>1</sup> [ECE/EX/2021/32](#)

sixteenth session of the Committee on Competitiveness, Innovation and Public-Private Partnerships (CICPPP).

14. The first definition of transformative innovation was provided by the keynote speaker, Professor Jason Potts of RMIT University: transformative innovation is new institutional innovation capabilities that come with the transformation from an industrial economy to a digital one. Such a transformation changes the basic organisation of economies, because a digital economy is not digital only in production, but also in its institutions. It has a large amount of digital capital (including human capital), digital skills, intangible assets, and intangible value. The profound economic changes caused by the ever-increasing uptake of digital money, IDs, assets, contracts, marketplaces, and social institutions make transformative innovation different from simple optimization of processes and products.

15. As a result of digitalization, innovation commons, where communities take collective ownership and management of innovation resources (such as knowledge, digital data, software codes, news, media etc.) are becoming a much greater institutional infrastructure in the innovation system. Within the UN system, the UNDP Accelerator Labs can be thought of as one example of an innovation commons. The representative of the European Commission highlighted two other examples:

(a) The EU Mission “100 Climate-Neutral and Smart Cities by 2030” provides access to various online resources and tools, an online peer learning and collaboration space, as well as zero-carbon technology and innovation factsheets, to support cities on their journey to climate neutrality by 2030.

(b) The European Corporate Days constitute a business acceleration service that brings together large corporations with innovative start-ups for exchange of ideas.

16. Professor Potts further defined transformative innovation as the process of taking advantage of these new digital economic infrastructures at global scale. Governments stand to benefit greatly from offering public support to innovation commons: The digital economy and the rise of the innovation commons can together become a global infrastructure for solving socio-environmental problems and achieving the SDGs.

17. Transformative innovation was also defined as innovation that can drive systemic change, accelerate the green and digital transitions, and help to meet the triple planetary challenges of climate change, loss of biodiversity, and the implications of the conflict in Ukraine.

18. The Team discussed several factors that can enable transformative innovation:

(a) Deep technology: This can accelerate the development of new technologies to address the most pressing societal challenges, and bring them on the market. The European Commission hopes to capitalize on this potential through the New European Innovation Agenda.

(b) Continuous experimentation, and embracing and learning from failed experiments: These are crucial for identifying the innovations and policies that can have a transformative effect, and letting go of those that cannot. Lessons learned from failures should be shared so others can benefit from them. Openness to taking risks and failing was highlighted as a key factor in Israel’s strong track record in innovation. Such flexibility of execution should cover not only experimentation with technologies and products, but also with innovation governance policies. The New European Innovation Agenda incorporates experimental approaches to regulation such as regulatory sandboxes, test beds, living labs and innovation-enhancing procurement (IEP).

(c) Robust data: This is key for identifying gaps and informing data-driven solutions such as AI tools for policymaking. Nesta, a United Kingdom innovation agency for social good, uses data-driven science and statistical methods to understand the effectiveness and fairness of innovation and business policy. Robust data is also crucial for a strong evaluation mechanism, which in turn can become another enabler by helping to finetune and optimize policies.

(d) Universal access to the Internet: This essential enabler allows citizens to access information as well as fully explore the range of possibilities offered by the digital transition.

The Russian Federation is currently developing a national programme for the digital economy based on accelerating the introduction of digital technology and the digital transformation of state administration. This programme includes eliminating digital inequality as a key element.

(e) Diffusion: Only broad uptake of relevant innovations, including within developing countries, can lead to a truly transformative impact. Participants noted that a repository of concrete cases could be useful in this context to help countries identify diffusion channels.

19. The Team identified several obstacles to transformative innovation:

(a) Persistent digital divide: The Russian Federation called upon international organizations to step up efforts to eliminate the digital gap between developed and developing countries, as well as the one among different groups within countries.

(b) Lack of a strong industrial base and a low diversification: These impede transition economies in developing and adopting innovations, as evidenced by their relatively weak scores on the UNCTAD Frontier Technology Readiness Index. Such countries therefore must innovate twice as fast: They need to both diversify their economies and catch up with the global digital transformation. Alternatively, they need to leapfrog to more advanced economic models, using the opportunities presented by digitalisation. North Macedonia is attempting to overcome such challenges via a Smart Specialization Strategy, which aims to build the industrial base in parallel to digitalisation processes. The case of Israel, meanwhile, demonstrates that leapfrogging is possible.

(c) Collection of requisite data: Especially in fragmented innovation ecosystems (such as those found in many transition economies), the difficulty of collecting good data can impede the identification of gaps, monitoring of policy effectiveness, and the design of well-adapted evaluation methodologies.

(d) Insufficient financing: While member States of the European Union benefit from the Horizon Europe project, such funds are not necessarily available to all ECE member States. Furthermore, there is often a lack of awareness among policymakers of the importance of sufficient funding for a vibrant innovation ecosystem.

(e) Flexibility in execution can be a powerful enabler, but it is not always easy to achieve: It requires a de-bureaucratization of the innovation ecosystem that is not necessarily compatible with the funding and policy priorities of governments. Clarifying the ownership and governance of the required institutions can be complicated. New ways of regulating could become needed as increasing digitalization creates entirely new industries, but anticipating such needs is difficult given the pace and unpredictability of the digital transformation.

(f) Competition: While it is in the interest of governments to protect and support a global innovation commons as a means for discovering new opportunities, reconciling this with competition is difficult: Companies, and especially large corporations that drive innovation, wish to preserve their profits and thus may not readily share their technologies and methods.

20. Tying these enablers and obstacles together, participants noted that awareness-raising and strong communication and coordination between all relevant stakeholders were necessary to enable transformative innovation, as only then can innovation processes be effectively geared to solving sustainability challenges. Of course, this raised the question of how to achieve such coordination, and who should carry it out. Several participants noted that the issue was complex and required further discussion. Platforms and other mechanisms (such as ETIN) can be valuable in that context for exchanging experiences and pooling and sharing knowledge on these topics.

21. This discussion on enablers and obstacles for transformative innovation carried into a panel on innovation governance, where the Team discussed policies that can promote such innovation:

(a) The Defense Advanced Research Projects Agency (DARPA) of the United States and the Swiss innovation agency Innosuisse exhibit flexibility of execution, described above as a powerful enabler. The strong similarities between the operating modalities of these

two successful organisations could perhaps even signify that these policies might be universally applicable. In fact, similarities could even be found with the relatively newer innovation ecosystem in the transition economy of Georgia. The commonalities pointed out include:

- (i) Freedom in mandate execution;
- (ii) Stability of public funding;
- (iii) Building communities;
- (iv) A streamlined and fast granting process .

(b) Innosuisse also provided examples of policies that are especially relevant to small, resource-poor countries, including supporting the expansion of start-ups beyond national borders and investment in education, particularly in technical and applied research.

(c) IEP can be a powerful policy lever to foster innovation. By being a demanding customer, governments can promote sustainability criteria in public spending, as well as spur innovation. Norway has focused on IEP for over a decade to challenge the private sector to develop innovative solutions. A few factors in Norway's success are as follows:

- (i) Having public organisations highlight their needs instead of focusing tenders on specific products/services;
- (ii) Systematic dialogue with the market to understand whether public needs can be met by an existing solution, or whether an R&D project is necessary to develop a new solution;
- (iii) Facilitating the participation of small business and start-ups in public procurement via the StartOff programme.

(d) OECD has carried out significant research on mission-oriented innovation policies. Traditional strategic and policy frameworks are often unable to deal with complex, systemic and urgent challenges. Mission-oriented innovation policies are thus increasingly used to spur transformative innovation. They often exhibit the following characteristics and challenges:

- (i) The funding capacity and the regulatory power of governments can bring the private sector to engage in such missions.
- (ii) The OECD has identified three elements of success: A mission agenda that is developed collectively by private and research entities based on the strategic goals set by the government, a dedicated structure that brings together relevant government and private entities, and coordination to align different actors' approaches to innovation.
- (iii) Experimenting with different methods of public outreach might be needed to maximize stakeholder engagement, better understand societal issues, and thus design appropriate missions.
- (iv) Countries might need time to develop or adapt missions to their specific circumstances. Mission models from Germany, the Netherlands and Norway were mentioned as examples.

22. Building on these discussions, the third panel exchanged views on why a network such as ETIN was necessary:

(a) Estonia has become a digital State, thanks in part to the sharing of digital infrastructure and data between the public and private sectors. Subsequently, cross-border digital solutions were developed with Finland and Iceland, benefiting from the expertise of these countries. Estonia's success demonstrates the benefits of sharing knowledge, data, and experience between different stakeholders, as well as internationally. ETIN could hold great value by promoting such sharing of knowledge and experience.

(b) The success of start-ups such as Seafields,<sup>2</sup> which was founded by a biochemist, highlights the need to involve scientists and researchers in creating companies to transform the environment. Government institutions which are willing to run the risk and accept the possibility of failure, such as the German Federal Agency for Disruptive Innovation (SPRIN-D), can be instrumental in promoting such start-ups. Furthermore, the public must be made aware of ongoing trials and innovative ideas, become more familiar with the innovation process, and accept the risk of failure. Systematic, strategic communication is thus necessary. By enabling interchange of ideas between stakeholders that would not normally work together, it can lead to solutions outside the box. Government, science and business need to jointly identify promising scientific ideas that can become viable businesses, which also promote the SDGs. ETIN could provide a platform for bringing these actors together and raise awareness.

(c) The experience of Germany highlights that, even in a country with a strong research and innovation track record, identifying the disruptive ideas which are aligned with the SDGs and translating them into viable businesses remains a challenge. Germany founded SPRIN-D in 2019 to meet that challenge. SPRIN-D has started employing several of the above-mentioned techniques, such as mission orientation in funding calls, a fast and simplified grant process, and establishing the Sovereign Tech Fund to provide stable financing to a resilient and sustainable open-source ecosystem. SPRIN-D is engaging in pre-commercial procurement and would be interested to learn more about the experience of Norway. ETIN could serve as a platform to compare experiences on such technical topics. It could also build a repository of best practices for innovation agencies and other stakeholders to learn from each other.

(d) The incoming chair of ToS-ICP listed several questions on which ETIN could provide a platform for thematic peer learning and twinning exercises for exchange of experience:

- (i) Reconciling the need for transformative innovation with entrepreneurial competition,
- (ii) Systems innovation and changing human behaviour in a technical and societal context,
- (iii) Using innovation policy to provide directionality to societal changes, and mobilisation of non-governmental actors for systems change,
- (iv) Promoting experimental development,
- (v) Embracing the possibility of failure and including it in innovation policies,
- (vi) Fostering a learning process across borders and organizations, at all levels,
- (vii) Using procurement to drive directionality, etc.

(e) The representative of BMWK expressed commitment to the digital and green transformation needed to achieve the SDGs. Germany was pleased to fund ETIN in this context. Germany hoped ETIN would harness the opportunities offered by digitalisation to build bridges between people, ideas, and resources, and promote innovation for a better, more sustainable future.

23. The last panel examined efforts towards digital and green transformations in the energy sector as a case study. The Team heard about three relevant ECE workstreams which are concerned with innovative technologies: digitalisation in energy, electrification of the vehicle fleet, and the ECE Carbon Neutrality Toolkit. It was pointed out that digitalisation was an enabler in all three, and that innovation was key to achieving climate targets in the sector. The Team discussed the following trends related to decarbonisation:

- (a) Decentralization of energy;

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<sup>2</sup> Seafields uses compressed bales of ocean-grown Sargassum seaweed to remove CO<sub>2</sub> and store it for millennia, as well as to develop products and resources that can replace those obtained from fossil fuels.

- (b) Increasing demand for electricity due to electrification of passenger and freight transport;
- (c) The need for greater investment for broader deployment of best available, innovative technologies;
- (d) The need for concurrent changes in consumer behaviour.

24. Several of the policy lessons highlighted can serve as inspiration for a broader dialogue on transformative innovation:

(a) Continuous dialogue between and learning from different stakeholders can enable better policymaking and effective deployment of innovative green technologies. Such dialogue would help take into account the demand side. It would also promote the necessary behavioural change in consumers by informing them of the negative consequences of business-as-usual.

(b) An integrated, multistakeholder approach is needed for effective green transformation. As one example, electrification of the vehicle fleet and deployment of the requisite charging infrastructure cannot be achieved by the transport sector alone, but must involve spatial planning, housing and energy.

(c) The multistakeholder dialogue and cooperation mentioned above require rethinking of existing governance structures, as they can only happen with coordination. Questions on how such coordination should be done, in energy and in other sectors, can be one area of discussion for ETIN.

(d) The cost of inaction (e.g., having to build new infrastructure in the face of rising sea levels) must be considered when discussing the high financial cost of deploying innovative, transformative technologies at scale.

(e) Regulation has a key role in providing directionality. Governments can promote the SDGs by aligning their regulatory processes with the 2030 Agenda.

(f) Flexibility in choosing the most effective technologies (including hydrogen) for the circumstances of each country, and letting go of ineffective ones, is exemplified in the “technology-agnostic” approach of the ECE Carbon Neutrality Toolkit. This links closely to earlier discussions on flexibility in innovation policies, experimentation, and embracing failure as a learning tool.

(g) There is a need for more data; open access to data; new indicators to measure behavioural change and methods; and processes to measure development as it happens, instead of waiting for ex-post evaluations.

25. The Chair noted that these sectoral policy lessons provided a useful and inspiring example for the broader discussion on transformative innovation.

26. The Chair thanked the speakers and participants of the policy dialogue for the productive exchanges, and requested the secretariat to draft a policy paper with good practice recommendations based on the discussions, to serve as input into the sixteenth session of the CICPPP and the seventieth session of ECE in 2023.

#### **IV. Review of the work of the Team of Specialists on Innovation and Competitiveness Policies since the thirteenth session (agenda item 3)**

27. The secretariat briefed ToS-ICP on the outcomes of activities carried out since the thirteenth session:

(a) The policy document “Leveraging Innovation for the Circular Economy” (ECE/CECI/2022/3) was drafted following the thirteenth session of ToS-ICP and presented to CICPPP in May 2022. The document identified what is needed for the circular economy transition, explored the role innovation could play therein, and presented good practices and policy recommendations for Governments. CICPPP endorsed the document and requested

the secretariat to apply the policy recommendations in future capacity-building activities and policy advisory work, including in the context of the UN Development Account (UNDA) project “Accelerating the transition towards a Circular Economy in the ECE region”.

(b) In light of synergies with the work of ToS-ICP and the potential for future cooperation, the secretariat informed ToS-ICP about activities carried out by the ECE Trade sub-programme under the above-mentioned UNDA project, including a policy paper and a regional policy dialogue on 15 November 2022 on the topic of “Sustainable and Innovation-Enhancing Public Procurement for the Circular Economy and Sustainable Use of Natural Resources”, webinars in the spring of 2022 to support micro, small and medium-sized enterprises in driving the circular economy forward, and the establishment of the Circular STEP knowledge sharing network. The latter would gather relevant stakeholders to facilitate exchange of experience and sharing of best practices for the circular transition. ToS-ICP participants were invited to join Circular STEP.

(c) A two-step capacity-building programme in follow-up to the Innovation for Sustainable Development Review (I4SDR) of Georgia included the development of a handbook on innovation-enhancing procurement (IEP) upon request from the Government of Georgia, and a study visit of officials from the State Procurement Agency of Georgia and Georgia’s Innovation and Technology Agency to Norway, which has a proven track record in IEP and numerous good practices to share.

(d) The I4SDR of the Republic of Moldova was published in February 2022, containing detailed, evidence-based recommendations on improving innovation policy in the country. Following the publication, the Ministry of Education and Research of the Republic of Moldova requested support to translate some of these recommendations into a Roadmap on Innovation and Technology Transfer. The Roadmap was finalized in October 2022 following several multistakeholder consultations with relevant local actors.

(e) The I4SDR of Uzbekistan was published in March 2022. Preliminary discussions were held with the Government on a follow-up capacity-building programme, which could also leverage the Working Group on Innovation and Technology for Sustainable Development of the UN Special Programme for the Economies of Central Asia (SPECA) and the SPECA Innovation Strategy for Sustainable Development.

(f) The I4SDR of Armenia was ongoing. A coordination group of relevant local stakeholders met several times in 2022 to determine the content framework of the Review. A research mission to Yerevan was conducted in October 2022.

(g) The I4SDR of Ukraine was ongoing. The current geopolitical context led to delays, and the work would take longer than initially anticipated. The Ministry of Science and Education of Ukraine confirmed to the secretariat its continued interest, and discussions were ongoing on a revised timeline and structure for the Review.

(h) Following its publication in March 2021, the Sub-regional Innovation Policy Outlook (IPO) for Eastern Europe and South Caucasus had become a change management tool for policymakers and a benchmarking instrument for peer learning and good practice sharing. Regular policy dialogues between national IPO focal points continued to promote such exchanges in 2022.

(i) An Interim IPO, which picks up key regional trends of the IPO and analyses them in more detail before engaging in a full-scale benchmarking exercise, was developed in 2022 and was close to being finalized.

(j) ETIN held preliminary consultations in 2022 to determine its two workstreams and discuss potential activities before its official launch on 14 November 2022. These workstreams are (i) understanding the promise and peril of transformative innovation, and (ii) strengthening the role of governments and agencies promoting transformative innovation. The podcast series “Innovation Matters”, which is a component of ETIN, had so far released 8 episodes. The episodes engaged leading experts on different topics related to innovation, such as the platform economy, the Fourth Industrial Revolution, and the rise of autonomous vehicles. The podcasts allowed to reach a broader audience than traditional methods of outreach.



(k) The Task Force on Innovation Policy Principles produced and revised a first draft of the Principles. Given the need for further reflection on a variety of issues, and the synergies with ETIN, the Task Force requested the Bureau of ToS-ICP to provide further direction on the Principles.

(l) Several activities for the SPECA sub-region were carried out in 2022 under the UNDA project “Strengthening innovation policies for SPECA countries in support of the 2030 Agenda for Sustainable Development”. An online training was held in February and a policy handbook is under preparation on the topic “supporting innovative high-growth enterprises in the SPECA sub-region”. A webinar on the topic “new approaches to innovation policy” was held in May, and a related policy paper for SPECA policymakers was being finalized as a basis for future capacity-building activities. A SPECA Network of Business Incubators and Accelerators for Sustainable Development was initiated as a platform for exchanges on the topic of innovative entrepreneurship in the sub-region. Webinars were held for managers and staff of incubators and accelerators from the SPECA participating countries, as well as for policymakers.

(m) ECE supported the Economic and Social Commission for Asia and the Pacific (ESCAP) on the organization of the annual session of the SPECA Working Group on Innovation and Technology for Sustainable Development (Almaty, July 2022).

28. The secretariat drew the attention of ToS-ICP to informal documents ECE/CECI/ICP/2022/INF.1, ECE/CECI/ICP/2022/INF.2, ECE/CECI/ICP/2022/INF.3 and ECE/CECI/ICP/2022/INF.4, which contained further details on some of the above-mentioned activities.

29. The representative of the State Procurement Agency of Georgia expressed strong appreciation for the collaboration with ECE in the context of the I4SDR of Georgia and the follow-up capacity building programme. He noted that the chapter of the I4SDR on IEP had informed the reform of the Georgian law on public procurement, and that ECE had supported the drafting of both the primary law and the secondary bylaws. Other valuable outcomes of the collaboration included the Handbook on IEP for Georgia, which was considered as “soft law” by the Georgian authorities, and the study tour to Norway for Georgian innovation and procurement officials. Georgia was developing a special IEP training module for procurement authorities in the country based on these activities. The representative thanked Sweden for funding these activities and Norway for the study tour, and noted that the knowledge gained by the Georgian procurement and innovation officials through ECE support would allow them to better lobby for application of IEP in the country. He concluded with a request for continued support as Georgia embarks on its journey to introduce sustainable and green public procurement approaches.

30. The representative of the Republic of Moldova expressed strong appreciation to the ECE for the fruitful collaboration during the last four years on three concrete workstreams: the IPO, the I4SDR, and the follow-up capacity building activities. She thanked Sweden for its financial contribution to these workstreams and highlighted their timeliness: the Ministry of Education and Research was developing the National Programme for Research and Innovation for 2024-2027. The topics explored in the I4SDR and IPO (strengthening industry-science linkages, developing innovation and technology transfer infrastructure, increasing the role of the diaspora in promoting innovation for sustainable development) were all areas where the Republic of Moldova needed assistance. In this context, the Roadmap for Innovation and Technology Transfer, and the follow-up trainings supporting its implementation, envisaged in December 2022 and January 2023, were crucial. As part of its efforts to develop a National Research and Innovation Strategy until 2030, the Republic of Moldova aimed to gradually increase funds allocated for research and development each year, create conditions for the development and strengthening of linkages between research and businesses, implement a normative and financial framework for the development of technological entrepreneurship and technology transfer, stimulate start-ups, and coordinate relevant policies across all the levels of the government. Such efforts required continuous support and expertise. In this respect, the Ministry of Education and Research was very interested to continue cooperation with ECE through policy dialogues and other initiatives. The Republic of Moldova remained committed to supporting innovation both at the political

and the technical level and looked forward to the implementation of the I4SDR recommendations.

31. The representative of Uzbekistan expressed strong appreciation to ECE for supporting the development of the innovation ecosystem in Uzbekistan, especially through the I4SDR which had been financed by the Russian Federation. In July 2022, Uzbekistan had approved its National Innovation and Development Strategy, which had been heavily informed by the recommendations of the I4SDR. The various events organized by ECE, including under the SPECA UNDA project, had allowed to bring best practices to the emerging innovation ecosystem in Uzbekistan. In this context, Uzbekistan was eager to continue the collaboration with ECE on implementing key I4SDR recommendations, on knowledge sharing on best practices, and on the topic of green and digital technologies, in order to facilitate innovation in the country and in the region. Uzbekistan would also be glad to receive support for capacity-building, as the national innovation ecosystem, including the Ministry of Innovative Development, was relatively new.

32. The representative of Armenia expressed strong appreciation towards Sweden for funding the I4SDR of the country, as well as towards the ToS-ICP and the secretariat. Innovation being a priority area, Armenia was eager to continue collaborating with ECE and looked forward to the publication of the I4SDR. The representative of Armenia also highlighted the importance of follow-up capacity building activities for implementing the recommendations of the I4SDR and hoped that this could be undertaken with generous funding from donor partners.

33. The representative of Germany expressed appreciation for the work already carried out under ETIN, including the lively exchanges during and on the margins of this fourteenth session of ToS-ICP, which were good indicators of what ETIN could achieve in the future. Germany would continue to be actively engaged in the activities of the network.

34. The Chair thanked Germany for its generous financial contributions to ETIN and highlighted that such contributions were crucial for ECE to continue offering effective support to member States.

35. ToS-ICP adopted the following conclusions for this agenda item:

(a) The Team of Specialists expresses satisfaction as to the outcomes of the work carried out, and notes that the Team has effectively responded to the needs of countries with economies in transition, in accordance with its mandate.

(b) The Team of Specialists thanks the Russian Federation for its generous financial support to the project “Strengthening the capacity of CIS countries to promote innovation for sustainable development in the context of the digital economy and Industry 4.0” which funded, among others, the Innovation for Sustainable Development Review of Uzbekistan.

(c) The Team of Specialists thanks Sweden for its generous financial support to recent policy advisory and capacity building activities through the extrabudgetary project “Promoting innovation policy capacities in Eastern Europe and the Caucasus”.

(d) The Team of Specialists welcomes the publication in 2022 of the Innovation for Sustainable Development Reviews of the Republic of Moldova and Uzbekistan, as well as the progress on innovation policy reforms based on ECE policy advice and capacity-building in these countries and in Georgia.

(e) The Team of Specialists looks forward to the publication of the Innovation for Sustainable Development Review of Armenia, and to updates on the progress of the Innovation for Sustainable Development Review of Ukraine.

(f) The Team of Specialists looks forward to updates on ongoing innovation policy reforms from countries benefiting from ECE support.

(g) The Team of Specialists looks forward to the publication of the Interim IPO in the coming months and welcomes progress made by countries in Eastern Europe and the South Caucasus in exploring ways to use innovation enhancing procurement and in fostering science-business linkages.

(h) The Team of Specialists welcomes the progress made on the Innovation Policy Principles, and requests the Bureau to provide guidance on the next steps.

(i) The Team of Specialists welcomes the launch of the UN-ECE Transformative Innovation Network (ETIN), thanks Germany for its financial support to this initiative, and encourages all interested parties to join and participate in its activities.

(j) The Team of Specialists welcomes the progress on the implementation of the SPECA Innovation Strategy for Sustainable Development, and encourages SPECA member countries to actively participate in the SPECA Network of Business Incubators and Accelerators for Sustainable Development.

(k) The Team of Specialists encourages the broad dissemination of the Team's outputs to relevant stakeholders.

## V. Inter-sessional implementation plan for 2022-2023 (agenda item 4)

36. The Team discussed and adopted its implementation plan for work to be undertaken in the remainder of 2022 and in 2023 in accordance with the Inter-sessional Implementation Plan for 2022-2023 of the CICPPP (ECE/CECI/2022/2, Annex II).

37. The secretariat presented informal document ECE/CECI/ICP/2022/INF.5, which highlights the approach of ECE to continued fundraising in support of member States in building national innovation systems that effectively contribute to sustainable development. The Chair emphasized that policy analysis work and capacity-building activities require extrabudgetary funding and in-kind support, and encouraged member States and other stakeholders to consider providing such contributions.

38. The following outputs and activities would be delivered in the remaining weeks of 2022 and in 2023:

(a) A policy document on "Digital and green transformations: Innovation for a sustainable future", reflecting the results of the discussions under the substantive segment, would be drafted and submitted for endorsement to the sixteenth session of the CICPPP in spring 2023.

(b) The I4SDR of Armenia would be finalized and published in 2023. Work on the I4SDR of Ukraine would continue in accordance with the structure and timelines to be decided with the Ukrainian Government.

(c) Pursuant to requests received from the Governments of Azerbaijan and Turkmenistan, work on I4SDRs of these countries would start subject to available resources.

(d) The Interim IPO would be finalized in the coming weeks and launched at a high-level event in the first quarter of 2023. The regular meetings of the network of IPO national focal points would continue, in order to share policy practices and plan the next fully-fledged IPO, which was foreseen for 2024.

(e) Pursuant to expressions of interest received from various member States, work might begin on a subregional IPO for the Western Balkans or for Central Asia, subject to available resources.

(f) The final capacity building activities in follow-up to the I4SDR of the Republic of Moldova would be delivered in the first quarter of 2023.

(g) Subject to available resources, capacity building activities in follow-up to the I4SDRs of Armenia and Uzbekistan would be agreed with the respective Governments and carried out.

(h) ETIN would be expanded to new members. Envisaged next steps included a policy dialogue on mission orientation in early 2023, a thematic on-site meeting during the first quarter of 2023, and the planning of a larger event in the second quarter of 2023. Further episodes of the Innovation Matters podcast series would be released.

(i) The work of the Task Force on Innovation Policy Principles required consideration of further directions, and attention paid to interlinkages with ETIN. The Bureau of ToS-ICP was therefore requested to provide guidance to the Task Force on the way forward. Experts interested in participating in this Task Force were invited to contact the secretariat.

(j) The fourth session of the SPECA Working Group on Innovation and Technology for Sustainable Development would be organized together with ESCAP. A policy conference would be organised back-to-back with the session.

(k) Capacity building for SPECA participating countries would be carried out according to the Action Plan of the SPECA Innovation Strategy for Sustainable Development. Additional activities would take place upon request, and would align with existing policy work on the following topics: business incubators to promote sustainable development, innovative high-growth enterprises, and new approaches to innovation policy in transition economies. These activities would be funded by the UNDA project “Strengthening innovation policies for SPECA countries in support of the 2030 Agenda for Sustainable Development” and possibly additional extrabudgetary funding.

(l) ECE would continue contributing to the capacity building workstream of the UN Inter-agency Task Team on Science, Technology and Innovation for Sustainable Development as appropriate.

(m) Building on the Team’s existing work on innovation for the circular economy and on innovation-enhancing procurement, and in cooperation with the ECE Trade sub-programme, ToS-ICP would contribute to the UNDA project “Accelerating the transition towards a circular economy in the ECE region” as appropriate.

(n) In order to raise awareness of its work among a broader audience and to strengthen beneficial synergies with other parts of the organisation, ToS-ICP and its secretariat would contribute, as appropriate, to important ECE events taking place in 2023. These included:

- (i) 2023 Regional Forum on Sustainable Development for the ECE region (Geneva, 29 and 30 March 2023)
- (ii) Seventieth session of ECE (Geneva, 18 and 19 April 2023)
- (iii) Sixteenth session of CICPPP (31 May to 2 June 2023)

39. The representative of Azerbaijan expressed appreciation for the work of ECE. She said that the peer learning dynamic created by the IPO had been uniquely impactful for Azerbaijan, and that the knowledge and experience provided by ECE as an international facilitator was essential for shaping regional innovation efforts while also coordinating and enhancing subregional dialogue and cooperation. The policy recommendations contained in the IPO had been useful for Azerbaijan’s efforts to diversify away from petrochemicals and develop into a knowledge-based economy. In the past two years, Azerbaijan had introduced multiple new initiatives to support entrepreneurship, digitalization, education and science. The Government would be happy to continue participating in the IPO as a long-term, regular exercise, as this would allow to document the progress achieved as a result of these initiatives. Azerbaijan would also appreciate a more detail-oriented review for its policymakers and potential investors, for example through an Innovation for Sustainable Development Review.

40. The representative of Ukraine thanked ECE for the work that had been done so far to support the development of the national innovation policy. Ukraine wished to enhance this cooperation, taking into account the challenges faced by the country. Three topics were of particular interest: an evaluation of the impact of innovation policy and infrastructure on the real economy, different instruments and mechanisms and scenarios of economic development based on choosing various sets of such instruments, a review of the innovation infrastructure, and the creation of an action plan for the transition to a circular economy, taking into account the current situation in Ukraine and the consequences of the ongoing military conflict. The representative of Ukraine hoped for continued fruitful cooperation with ECE.

41. The representative of Uzbekistan said that Uzbekistan would be glad to host the next session of the SPECA Working Group on Innovation and Technology for Sustainable Development in Tashkent in October 2023, in conjunction with the “Innoweek” event which would bring delegates from around the world to the country.

42. The Chair concluded that the Team of Specialists gratefully accepted the offer of Uzbekistan to host the annual session of the SPECA Working Group on Innovation and Technology for Sustainable Development in 2023.

43. Speaking in his double capacity as Vice-chair of the bureau of CICPPP and Chair of the bureau of the Working Party on PPPs, the representative of Greece noted the importance of enhancing synergies between ToS-ICP and the Working Party on PPPs. In that context, he expressed satisfaction at the choice of a topic relevant to both bodies for the policy dialogue of the 2022 session of the CICPPP: green and sustainable procurement. He hoped this could also be done in 2023 and that the chosen topic would contribute to the theme of the seventieth session of ECE. He also invited ToS-ICP to present its work at the forthcoming International PPP Forum to be held in Athens in May 2023.

## **VI. Other business (agenda item 5)**

44. The Team agreed that its fifteenth session be held on 8 and 9 November 2023, subject to confirmation of room availability. Any changes in these dates would be made in consultation with the Bureau. Due to budgetary constraints, the fifteenth session would be solely in person, unless additional funding was found for hybrid participation.

45. The Team requested the secretariat to prepare a draft report of the session and distribute it to the Geneva Permanent Missions for subsequent approval by silence procedure in accordance with paragraph 21 of Appendix III of document E/ECE/1464 (Guidelines on procedures and practices for ECE bodies), followed by publication in English, French and Russian.

## Annex

### Programme of the policy dialogue

MONDAY 14 NOVEMBER

- 10:00 – Welcome and opening  
10:20
- Mr. Salvatore Zecchini, Chair, UNECE Team of Specialists on Innovation and Competitiveness Policies
- Ms. Olga Algayerova, Executive Secretary, UNECE
- 10:20 – Keynote speech: Prof. Jason Potts, Distinguished Professor of Economics and Co-director of the Blockchain Innovation Hub at RMIT University and chief investigator on the ARC Centre of Excellence for Automated Decision-Making and Society  
10:35
- “Defining transformative innovation: How can it accelerate progress towards the Sustainable Development Goals?”*
- 10:35 – Panel 1: *“Transformative innovation: What enables, catalyzes, and constrains it?”*  
12:00
- Moderator: *Dmitry Mariyasin, Deputy Executive Secretary, UNECE*
- Panelists:
- Ms. Signe Ratso, Acting Director-General, Directorate-General for Research and Innovation, European Commission
- Mr. Sagi Dagan, VP and Head of Strategy, Israel Innovation Authority
- Ms. Katarina Krecheva, Head of Strategic Planning, State Fund for Innovation and Technological Development, North Macedonia
- Mr. James Phipps, Deputy Director, Innovation Growth Lab, Nesta
- Mr. Clovis Freire Junior, Chief of the Technology and Innovation Policy Research section, Division on Technology and Logistics, UNCTAD
- Questions for discussion:
- How is transformative innovation defined?
- How can the innovation process promote transformative innovations to solve our global challenges?
- How can efforts in different areas be coordinated to have a transformative effect, to best take advantage of the innovation commons?
- What has been the experience of authorities at different governance levels?
- Q & A, then wrap-up by moderator
- 15:00 – Panel 2: *“Rethinking innovation policy: the imperative of innovation in governance”*  
16:00
- Moderator: *Ms. Elisabeth Türk, Director, UNECE Economic Cooperation and Trade Division*
- Panelists:
- Prof. William Bonvillian, Lecturer at the MIT and Senior Director, Special Projects, at MIT’s Office of Digital Learning
- Ms. Luciana Vaccaro, Vice President of Innosuisse and Rector of University of Applied Sciences and Arts of Western Switzerland

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 MONDAY 14 NOVEMBER
 

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Mr. Johan Englund, Director, Directorate of Public Administration and Financial Management, Norwegian Agency for Public and Financial Management

Ms. Ani Vashakmadze, Head of Donor Relations and International Relations Department, Georgia's Innovation and Technology Agency

Mr. Philippe Larrue, Policy Analyst, Directorate for Science, Technology and Industry, OECD

Questions for discussion:

How can innovation policy create opportunities for transformative innovation out of gaps, needs and challenges?

Which institutions are needed to translate these gaps, needs and challenges into innovation opportunities?

How can policymakers ensure the agility needed to ensure continued experimentation, even in the face of failed experiments?

How can the experience of countries that have successfully encouraged transformative innovation be replicated elsewhere?

Q & A Wrap-up by moderator

16:00 – Launch session of the UN-ECE Transformative Innovation Network  
17:00 (ETIN)

Moderator: *Mr. Mikael Román, coordinator, UN-ECE Transformative Innovation Network (ETIN)*

Speakers:

H.E. Nele Leosk, Ambassador-at-Large for Digital Affairs, Ministry of Foreign Affairs of Estonia

Mr. Marco-Alexander Breit, Deputy Director-General for Artificial Intelligence, Data and Digital Technologies, German Federal Ministry for Economic Affairs and Climate Action

Mr. Rafael Laguna de la Vera, Founding Director, German Federal Agency for Disruptive Innovation

Mr. Kjell Håkan Närfelt, Chief Strategy Officer, VINNOVA

Ms. Mar Fernández-Méndez, Co-Founder, Seafields

Questions for discussion:

What should be the principle aims and objectives of ETIN?

How can ETIN best complement and support existing actors in the innovation policy space?

What ETIN activities, planned and additional, are most important to support the implementation of the Sustainable Development Goals?

Q & A Wrap-up by moderator

## 15 NOVEMBER 2022

10:00 – Panel 4: “*Transformative innovation and energy*”

11:00

Moderator: *Mr. Mikael Román, coordinator, UN-ECE Transformative Innovation Network (ETIN)*

Speakers:

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MONDAY 14 NOVEMBER

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Mr. Andrei Covatariu, Senior Expert, Energy Policy Group

Ms. Els de Wit, Chair, UNECE Working Party on Transport Trends and Economics

Presentation of the UNECE Carbon Neutrality Toolkit by Ms. Denise Mulholland, Secretary of the UNECE Committee on Sustainable Energy

Questions for discussion:

What innovative approaches are being pioneered to transform the energy sector?

What challenges do innovators face in the energy sector?

What role for regulations in enabling transformative innovation?

What are the prospects and conditions in scaling innovative approaches, including across borders?

Q & A Wrap-up by moderator

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