



UNITED NATIONS SPECIAL PROGRAMME
FOR THE ECONOMIES OF CENTRAL ASIA (SPECA)

Fourth Session of the SPECA Working Group
on Innovation and Technology for Sustainable Development

(Country chair: Uzbekistan, 19 October 2023)

REPORT

The fourth session of the SPECA Working Group on Innovation and Technology for Sustainable Development (WG on ITSD) was jointly organised by UNECE and ESCAP secretariats in a hybrid format (in Tashkent, Uzbekistan and online through Zoom) and chaired by the Government of Uzbekistan, on 19 October 2023.

Delegations from Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan participated in the session, along with representatives of the UNECE and ESCAP secretariats. Representatives and experts from international and regional organisations, as well as business sector and academia, also participated. The list of participants is attached as Annex IV.

Opening of the session

Mr. Bunyod Rakhmatullaev, Deputy Director General of the Ministry of Higher Education, Science and Innovations of Uzbekistan, welcomed participants to the session. He thanked UNECE and ESCAP secretariats for organising the fourth session as well as the preceding SPECA Workshop on Innovation and Technology for Sustainable Development. He also expressed thanks to all the experts who presented at these events.

Mr. Tae Hyung Kim, Chief of the ICT and Development Section, Information and Communications Technology and Disaster Risk Reduction Division, ESCAP and Mr. Christopher Athey, Economic Affairs Officer, Innovative Policies Development Section (IPDS), Economic Cooperation and Trade Division (ECTD), UNECE, expressed appreciation to the delegations of the SPECA countries for their participation in the fourth session of the SPECA WG on ITSD.

Election of officers and adoption of the agenda

The SPECA Working Group (WG) on Innovation and Technology for Sustainable Development (WG on ITSD) elected Mr. Bunyod Rakhmatullaev, Deputy Director General of the Ministry of Higher Education, Science and Innovations of Uzbekistan as Chair of the session. The Chair briefed the progress and achievements of the programme conducted since the last session of the WG on ITSD and highlighted the importance of cooperative activities on innovation strategy and digital technology applications for sustainable development among the SPECA participating countries with the support of the UNECE and ESCAP secretariats.

The WG on ITSD adopted the agenda of its fourth session.

Outcomes of the SPECA Workshop on Innovation and Technology for Sustainable Development

The UNECE and ESCAP secretariats summarised the outcomes of the SPECA Workshop on Innovation and Technology for Sustainable Development, held on 18-19 October 2023. A summary of the outcome of the SPECA Workshop is attached at Annex II.

Review of activities since the third session of the SPECA Workshop on ITSD

Mr. Christopher Athey of UNECE and Ms. Aida Karazhanova of ESCAP briefed the Working Group on the activities of the respective secretariats since the third session of the WG on ITSD.

UNECE activities included:

- Online training for SPECA countries on Effective management and development of business incubators and accelerators, 27-29 September 2023 (online)
- Development of business incubators and start-up accelerators: training for university management, 21 February 2023 (online)
- Working with venture funds and business angels: UNECE practical online training for staff of business incubators and accelerators in the SPECA sub-region, 16 March 2023 (online)
- UNECE workshop for Chief Innovation Officers on innovation for the circular economy, 2 May 2023, Tashkent
- Capacity building programme for Azerbaijan on building a venture capital ecosystem, June-September 2023 (online)
- Study tour to Georgia for innovation policymakers from the SPECA sub-region, 10-11 July 2023, Tbilisi
- Subregional SPECA Workshop on Innovation and Technology for Sustainable Development, 18-19 October 2023, Tashkent
- UNECE Business to Business (B2B) conference “Innovation for the Circular Economy: Bridging Start-Ups and Corporations”, 18 October 2023, Tashkent

In addition, Ms. Lyudmyla Tautiyeva and Ms. Ekaterina Guznova, Consultants, IPDS, ECTD, UNECE presented the main findings and recommendations of the UNECE handbooks on “Business Incubators for Sustainable Development in the SPECA Subregion” (2021), “Supporting Innovative High-Growth Enterprises in the SPECA subregion” (2022) and “New Innovation Policy

in the SPECA Subregion” (2023). This was followed by a presentation on next steps for the activities of the SPECA Network of Business Incubators and Accelerators for Sustainable Development targeted at promoting circular economy, as presented by Ms. Anastasia Pankova, Consultant, IPDS, ECTD, UNECE. Mr. Christopher Athey, Economic Affairs Officer, IPDS, ECTD, UNECE in his turn briefed the WG on the key findings of the UNECE Innovation for Sustainable Development Review of Uzbekistan (2022) and interim Innovation Policy Outlook, followed by a briefing by Maria Teresa Pisani, Officer-in-Charge, Trade Facilitation Section, ECTD, UNECE on the work carried out on cotton traceability in Uzbekistan with the use of blockchain technology and an upcoming readiness assessment.

ESCAP activities in the SPECA region included:

- ESCAP Expert Group Meeting on Tracking e-resilience, 23 August 2023, Bangkok
- Online Training on Using ICT Connectivity Tools of ESCAP for ICT Infrastructure Development and Infrastructures Co-Deployment in the Region, 5 June 2023
- National Training on Information Security and Privacy, 4-5 October 2023, Astana, Kazakhstan
- Digital Bridge 2023 Forum: signing host country agreement between ESCAP Secretariat and the government of Kazakhstan on joint delivery of the Ministerial Conference on Digital Inclusion and Transformation, Astana, 12-13 October 2023
- National Training on Information Security and Privacy, 4-5 October 2023, Baku, Azerbaijan
- Subregional SPECA workshop “ESCAP Connectivity Tools and the E-resilience Monitoring Dashboard for Digital Foresight Planning “, 19 October 2023, Tashkent and online

Adoption of the programme of work

Mr. Christopher Athey of UNECE and Ms. Aida Karazhanova of ESCAP presented the updated Work Plan of the WG on ITSD for the period of October 2023- December 2025. It included i) capacity-building on policy options and practical instruments to promote knowledge-based development; ii) implementation of the UNECE project on Innovation for Sustainable Development Reviews of selected countries; iii) support to SPECA countries to foster innovation to deliver the SDGs; iv) capacity development on the utilization of digital technology and geospatial information; v) promote regional connectivity and transformation of SPECA region in the framework of the Asia-Pacific Information Superhighway (APIS) Action Plan 2022-2026; vi) strengthen institutional capacity on integrating geospatial and statistical data, with a focus on drought monitoring and land accounts in Central Asia, and vii) capacity development to reduce and mitigate disaster risks in endorheic (inland) water basins in Central Asia, viii) deliver the Asia-Pacific Ministerial Conference on Digital Inclusion and Transformation in 2024, Astana, Kazakhstan, (ix) facilitate the establishment of the Digital Solutions Center for Sustainable Development (DSC SD), as initiated by Kazakhstan (ref ESCAP CS Resolution 79/10), in its capacity of APIS Bureau Member.

The WG adopted the updated Work Plan (Annex III) and agreed that the details of the envisaged activities could be further elaborated in consultation with the host countries of these future activities.

The WG members expressed several proposals as future plans of activities. The delegate from Kazakhstan, Mr. Sanat Akhanov, Chairman of the Board of “National Agency for the

Development of Innovations, “QazInnovations” JSC presented on Digital Ecosystem of Kazakhstan, shared the vision and principles of the proposed United Nations digital solutions center for sustainable development (UN DSC SD), value proposition, key performance indicators, and called participants to join the efforts of Kazakhstan (MoFA, MDDIAI, expert institutions) to establish the United Nations DSC SD in Kazakhstan. He emphasised the Kazakhstan’s readiness to be more closely involved in upcoming UNECE and ESCAP programmes and projects, including ‘Skills for the future: strengthening entrepreneurship capacity in Uzbekistan for the circular economy’ in partnership with Impact Hub.

The delegate from Kyrgyzstan, Ms. Aisuluu Mustapakulova, Head of Innovation and Strategic Development Department, Kyrgyzpatent, voiced her country’s readiness for deeper cooperation and proposed to hold several “train the trainer” sessions for representatives of the SPECA Network of Business Incubators and Accelerators for Sustainable Development (NBIASD) in 2024, supported by the organisation of a SPECA regional start-up competition and the possible creation of an online platform for the NBIASD. The delegate also proposed the host of the next SPECA WG on ITSD in 2024, Kyrgyzstan.

Further to this, the delegate from Tajikistan, Mr. Ravshan Kurbanov, Founder, Technohub Dushanbe, suggested to hold a coordination meeting of existing networks of venture capitalists with the SPECA NBIASD and offered that Tajikistan host such an event, or that it is organised as a side event at the Central Asian Venture Capital Forum planned in Kazakhstan in Q3 2024. He further proposed to ensure that proper support is provided to the SPECA participating states in conducting start-up competitions, including when it comes to judging the projects properly and selecting winners. Mr. Kurbanov also proposed to establish a subregional SPECA association of IT schools to enable the exchange of experiences, practices, and opinions to contribute to human capital development in the region while enabling innovation. He also suggested the creation of a single database of trainers, trackers, and mentors for the SPECA subregion to facilitate peer learning and exchange of practices in supporting innovative enterprises.

Date and venue of the next session of the Working Group on ITSD and other business

The Working Group agreed to hold its fifth session around June 2024, to be hosted and chaired by the Government of Kyrgyzstan, with the exact date and venue to be decided through consultation with the host country.

Adoption of decisions

The proposed draft decisions were adopted by the delegations of SPECA participating states. The decisions of the session are attached to this report (Annex I).

Closing of the session

The Chair of the session thanked the UNECE and ESCAP secretariats for their support on the organization of the session and the regional SPECA workshop on 18-19 October 2023. He thanked delegates and experts for their active participation in the work of this fourth session of the SPECA Working Group on Innovation and Technology for Sustainable Development.

Delegates thanked the Government of Uzbekistan for chairing the session and the UNECE and ESCAP secretariats for the excellent organization of the session.

ANNEX I

DECISIONS OF THE FOURTH SESSION OF THE SPECA WG ON ITSD

1. The Working Group on Innovation and Technology for Sustainable Development (WG on ITSD) noted with satisfaction the discussions and country presentations of its fourth session, a summary of which will be included in annex to the Report of this session.
2. The WG reviewed the activities carried out since its third session and expressed its appreciation of the responsiveness of these activities to the needs of the SPECA participating States, as highlighted in a recent UN Office of Internal Oversight Services evaluation of subprogrammes 4 and 6 of UNECE. Delegates noted with satisfaction the activities carried out by the United Nations ESCAP and UNECE secretariats within the framework of the WG.
3. The WG noted the cross-cutting priority theme of the 70th session of the UNECE on “Digital and green transformations for sustainable development in the UNECE region”, and their relevance to the work of the SPECA WG on ITSD.
4. The WG welcomed the activities of the SPECA Network of Business Incubators and Accelerators for Sustainable Development under the Action Plan of the SPECA Innovation Strategy for Sustainable Development. Activities of the network are focused on developing the potential of business incubators and accelerators to deliver economic, social and environmental benefits across the SPECA subregion. This Network will draw on UNECE work being carried out to create a European Transformative Innovation Network (ETIN), which will explore how Governments can play a catalytic role in supporting transformative innovation for sustainable development.
5. The WG welcomed the nomination by the SPECA participating States of national focal points for implementation of the Action Plan of the SPECA Innovation Strategy for Sustainable Development. Namely, this has involved the identification of national focal points to mobilise the SPECA Network of Business Incubators and Accelerators for Sustainable Development.
6. The WG noted with appreciation the wide range of relevant and useful activities carried out under the Action Plan of the SPECA Innovation Strategy for Sustainable Development in the difficult circumstances of the Covid-19 pandemic. The WG welcomed the initiative to undertake a review of the progress in implementing the SPECA Innovation Strategy for Sustainable Development and its Action Plan and prepare a mid-term Monitoring and Evaluation Report as a basis for consultations among the SPECA participating states regarding the future implementation of the Strategy.
7. The WG encouraged the SPECA participating States to disseminate widely and make full use of the recently issued UNECE handbooks on “Business Incubators for Sustainable Development in the SPECA Subregion” and “Supporting Innovative High-Growth Enterprises in the SPECA Subregion”.

8. The WG welcomed the final draft of the UNECE policy paper on “New approaches to innovation policy in the transition economies of the SPECA subregion” and requested that this be made available on the UNECE website and widely disseminated among stakeholders.
9. The WG endorsed the continuation of work on the circular economy as a crucial element contributing to sustainable development and resource efficiency within the SPECA subregion. This includes exploring innovative solutions to accelerate the circular transition in accordance with the decision of the 69th session of the UNECE Commission regarding strengthening measures for circularity and sustainable resource use.
10. The WG particularly welcomed the establishment of a SPECA Network on Business Incubators and Accelerators for Sustainable Development and encouraged donors and support from national focal points to make this a self-sustaining initiative to promote entrepreneurship in the SPECA subregion. The WG underscored the importance of capacity-building and technical assistance initiatives to strengthen innovation and entrepreneurship in the circular economy.
11. The WG welcomed the UNECE document "Innovation for the Circular Economy: A Practical Guide for the SPECA Network of Business Incubators and Accelerators for Sustainable Development" and requested that it be made available on the UNECE website and distributed widely among stakeholders, particularly members of the SPECA Network on Business Incubators and Accelerators for Sustainable Development.
12. The WG welcomed UNECE’s recommendations on integrating circular economy considerations into public policy with positive effect for innovative high-growth enterprises in the SPECA subregion. These recommendations will empower policymakers in SPECA participating States to foster the growth of innovative high-growth enterprises with circular economy business models among start-ups and small and medium-sized enterprises.
13. The SPECA participating States committed to providing regular updates on the implementation of circular economy initiatives within the context of innovation policies during future sessions of the WG. This reporting mechanism will serve as a valuable platform for member states to share best practices, exchange lessons learned, and foster collaborative efforts in advancing the circular economy agenda.
14. The WG noted the potential for blockchain technology to support sustainable and digital trade facilitation in the SPECA subregion as a driver of sustainable development.
15. The WG commended Uzbekistan’s progress in implementation of reforms in line with the UNECE Innovation for Sustainable Development Review of Uzbekistan recommendations and encouraged the Uzbekistan Government to persist in these efforts. In this regard, the WG noted the continued relevance and value of policy recommendations made in the UNECE Innovation for Sustainable Development Review of Uzbekistan to drive sustainable development in the country.

16. The WG noted the importance of findings and recommendations of the UNECE Innovation for Sustainable Development Review of Kyrgyzstan (2019) in progress made by Kyrgyzstan in innovation ecosystem development. The WG welcomed the decision by Kyrgyzstan to request a second round of Review, subject to the availability of extrabudgetary resources, to strengthen the country's capabilities in achieving innovation-driven, sustainable economic growth and development.
17. The WG noted the requests of Kazakhstan and Tajikistan to carry out Innovation for Sustainable Development Reviews (I4SDR), subject to the availability of extrabudgetary funding.
18. The WG welcomed the initiative to carry out an innovation policy benchmarking exercise in the SPECA participating States, subject to availability of extrabudgetary resources, building on the experience of the pilot UNECE Innovation Policy Outlook recently carried out in Eastern Europe and South Caucasus. In this regard, the WG also called on UNECE and ESCAP secretariats to work closely with donors and development partners to mobilize necessary funds.
19. The WG expressed its support for the implementation of the ESCAP resolution 79/10¹ on "Promoting digital cooperation and inclusion through the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026".
20. The WG committed to cooperating with the ESCAP and UNECE secretariat, other United Nations agencies, and regional organizations, as well as with major groups and other stakeholders to foster digital cooperation among SPECA participating States and beyond in order to bridge the digital divide, ensure the provision of digital skills training, strengthen digital connectivity, address and enhance digital trust and security, share good policies, practices and lessons learned, and promote inclusive digital economies and societies. The WG also committed to fostering the use of digital technologies to facilitate the shift towards a circular economy by filling information gaps, increasing efficiency and making new forms of economic activity possible, including changes in production and consumption patterns, as stated by the 70th Session of the Economic Commission for Europe.
21. The WG noted the development progress and proposed member states and ITLLDC to continue mobilising resources of the ESCAPs online toolkits² on Portal and Simulator for ICT co-deployment with Energy and Transport Infrastructure and noted the progress of 2023 monitoring e-resilience under the Asia-Pacific Information Superhighway (APIS) Action Plan for 2022-2026 as reflected in Working Papers. Recognizing that as societies and economies undergo stages of digital transformation, e-resilience, a concept that accelerated during the COVID-19 pandemic, will continue to grow in relevance, and should be modified

¹ ESCAP/RES/79/10: Promoting digital cooperation and inclusion through the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026; ESCAP/RES/78/1: Bangkok Declaration Commemorating the Seventy-fifth Anniversary of the Economic and Social Commission for Asia and the Pacific: a Common Agenda to Advance Sustainable Development in Asia and the Pacific

² (i) a single information platform with automation and simulation modules for determining compatibility, economic efficiency, and identifying infrastructure projects that lend themselves to ICT deployment for smart corridors; (ii) an e-resilience monitoring dashboard, and an associated e-resilience readiness index for last mile digital foresight planning scenarios by 2030.

to respond to the new challenges facing ICT ecosystems, to support in particular the commitments to climate action.

22. The WG expressed appreciation to the Government of Kazakhstan and the ESCAP secretariat for co-organizing the “Asia-Pacific Ministerial Conference 2024”, under the theme of “Digital Inclusion and Transformation”, around August or October 2024 in Astana, Kazakhstan.
 23. The WG noted with appreciation the initiative of the Government of Kazakhstan through the ESCAP resolution 79/10 to establish a “digital solutions centre for sustainable development” (DSCSD). The WG noted the concept of the DSCSD and requested the representative of Kazakhstan to submit the concept note and operational modalities for the centre to the 18th session of the SPECA Governing Council, hosted by Azerbaijan on 23 November 2023 in Baku, as well as at the Asia-Pacific Ministerial Conference 2024 referred to in paragraph 22 above.
 24. The WG adopted its Work Plan for October 2023 - December 2025. Potential priority areas could include start-up competitions to build on success stories, training of the trainers for the SPECA Network of Business Incubators and Accelerators for Sustainable Development (NBIASD), events with the engagement of venture funds, and joint sectoral projects (e.g., Greentech, Govtech, Fintech, Agritech, Medtech) between SPECA participating States with potential for joint funding and donor support.
 25. The WG thanked its donors, whose funding greatly contributed to the work of the WG on developing good practices and standards, analysing national policies, and providing policy advice and capacity building for the implementation of policy reforms. The WG emphasized the importance of financial and in-kind contributions for the success of its capacity-building activities and policy advisory services. It invited member States and other donors to continue to provide support to its activities.
 26. The WG agreed to hold its 5th session in 2024 and welcomed the offer of Kyrgyzstan to host and chair the next session of the WG in June 2024.
 27. The WG expressed its sincere gratitude to the representative of the Government of Uzbekistan for the effective chairing of this 4th session of the SPECA WG on ITSD.
 28. The WG expressed its appreciation to the secretariats of UNECE and ESCAP for their efforts in organizing the 4th session of the WG, and for their active work in supporting the activities of the WG on ITSD.
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ANNEX II

Summary of the SPECA Workshop on Innovation and Technology for Sustainable Development

(Hybrid: Tashkent, Uzbekistan, and online Zoom platform, 18-19 October 2023)

The workshop on the 18th October began with an opening statement by **Mr. Odiljon Iminov**, Chairman of the State Committee on Science, Education and Health Affairs of Uzbekistan who highlighted the progress made by Uzbekistan in international rankings of innovation performance and the importance of inclusive innovation to propel sustainable development. **Ms. Rusyan Mamiit**, Partnership and Development Finance Officer, UN Resident Coordinator's Office in Uzbekistan, welcomed the commitment of the SPECA countries to harness innovation as a driver of sustainable development and informed participants about UNDP innovative pilot projects that support livelihoods and contribute to inclusive economic development, such as a precision farming techniques roll out and the expansion of digital infrastructure. **Mr. Christopher Athey**, Economic Affairs Officer, IPDS, ECTD, UNECE highlighted the fruitful and long-standing cooperation with the SPECA sub-region across multiple areas, including economic cooperation, trade and innovation, and emphasized the importance of further collaboration, including on topics such as circular economy and green and digital transformation.

The UNECE Secretariat presented the key objectives and the structure of the workshop. This was followed by a presentation by **Mr. Tae Hyung Kim**, Chief, ICT and Development Section (ISD), IDD, ESCAP on the main activities under the Action Plan 2022-2026 of the Asia-Pacific Information Superhighway (APIS) initiative. **Mr. Mario Apostolov**, Regional Adviser, ECTD, UNECE, informed participants about the potential of using United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) standards for digitalization of trans-Caspian supply chain information with a current pilot project in digitalisation of railway consent notes in the sub-region. A progress update on the SPECA Network of Business Incubators and Accelerators for Sustainable Development and the circular economy angle in the work of the Network was presented by UNECE consultants **Ms. Ekaterina Guznova** and **Ms. Anastasia Pankova**.

The policy discussion session featured a presentation on the progress made by the SPECA participating states on implementation of the Action Plan of the SPECA Innovation Strategy for Sustainable Development followed by discussion of latest developments in innovation policy across SPECA participating states. **Ms. Lyudmyla Tautiyeva**, Consultant, UNECE showcased current progress on the Action Plan implementation as assessed by the UNECE. The preliminary results of the survey assessing progress on the Action Plan, as conducted by UNECE and presented by **Mr. Rumen Dobrinski**, Director for Strategy, European Alliance for Innovation, showed SPECA representatives overall satisfaction with the UNECE work to support countries in achieving the main goals of the Strategy. In particular, the WG participants have found effective and relevant training programmes for the development of business incubators and accelerators in the subregion and commended the establishment of the SPECA Network of Business Incubators and Accelerators for Sustainable Development (NBIASD). SPECA delegations also expressed interest in the future roll out of practical webinars and training on a regular basis policy practitioners and innovation system stakeholders more broadly.

Further, **Ms. Yevgeniya Bikmurzina**, Head of the Innovation Ecosystem Department, Innovation and Digital Development Agency, Azerbaijan informed about the growing number of public-private partnerships in innovative ventures development, state initiatives on human capital development (e.g., TechNest to develop skills for 31 IT professions), a new cybersecurity centre established in cooperation with Israel, and continued initiatives to support innovation at universities (e.g., innolabs, mentoring and business incubation programmes, etc.).

Mr. Sanat Akhanov, Chairman of the Board of “National Agency for the Development of Innovations, “QazInnovations” JSC, Kazakhstan informed about the ambitious goal of Kazakhstan in becoming a data-driven Government with a key role for innovation and QazInnovations in this regard. Mr. Akhanov noted that among the success stories that helped to take Kazakhstan to 8th position in the GII Government Online Services Index in 2022 was the appointment of digital vice ministers, establishment of accelerators groups comprised of businesses, civil society and academia, to find new solutions to challenges in the public sector and service delivery, but also continued efforts in building skills in data analysis at universities and new data centres.

Ms. Aisuluu Mustapakulova, Head of the Innovation and Strategic Development Department, Kyrgyzpatent, Kyrgyzstan thanked UNECE for useful training courses on business incubation, entrepreneurship culture and other related topics, support in developing the concept of creative industries, and assistance in building the innovation infrastructure through advice and capacity building activities. Ms. Mustapakulova highlighted the willingness to further cooperate with UNECE and the SPECA participating states on the circular and green transitions and strengthening of the innovation ecosystem.

Mr. Ravshan Kurbanov, Founder, Technohub Dushanbe, Tajikistan, elaborated on the main obstacles to progress on innovation-driven sustainable development, namely the lack of regional platforms for cooperation on innovative entrepreneurship, lack of access to funding (crowdfunding and venture capital additionally constrained by lack of dedicated legislation), need for human capital development (STEM and IT fields). Mr. Saidov called for the SPECA participating states to cooperate more in these areas and to present themselves as a united, single hub and brand for investors and peers abroad.

Finally, **Mr. Bunyod Rakhmatullaev**, Ministry of Higher Education, Science and Innovations of Uzbekistan praised the relevance of recommendations of the UNECE Innovation for Sustainable Development Review of Uzbekistan that were considered in the new Innovative Development Strategy 2022-2026. Mr Rakhmatullaev noted the importance of establishment of chief innovation officer roles in the Government, vice-deans for innovation and deputy mayors responsible for innovation in spearheading innovation ecosystem development. He also emphasized the importance of regional cooperation across SPECA, including pilot initiatives that would allow for success stories and their further scale up.

The session on the 19th October contributed to implementing the ESCAP resolution on 79/10: “Promoting digital cooperation and inclusion through the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026”, adopted in May 2023. The session highlighted good practices on digital technology applications in the Asia-Pacific region, summarised as follows.

Mr. Vadym Kaptur, Consultant of IDS, IDD, ESCAP, presented the 2023 progress of the two online tools of ESCAP, such as the web portal for “ICT Co-deployment with Energy and Transport Infrastructures” and the online “Simulator for ICT Co-deployment with Energy and Transport Infrastructure”. The Secretariat continued hosting, content moderation and software updates. All relevant resources (virtual machine, cloud service, domain, etc.) were supported for stable operation during the reporting period. The default values of economic variables were updated, the Labour and Material Norms Databases in the Simulator were refreshed according to GDP changes. The Portal's Knowledge Base is updated with fresh studies and projects implemented. ESCAP also organised the online training for ITLLDC experts on June 15, 2023. The follow-up sideline meeting of ESCAP with IsDB and Uzbekistan representatives on 19 October 2023 discussed the future steps of online tool application in Uzbekistan since they offer an assessment of investment opportunities of transboundary scope.

Ms. Aida Karazhanova, Economic Affairs Officer, IDS, IDD, ESCAP, informed on the progress of tracking e-resilience through the open-source data assembled at the e-resilience monitoring dashboard 2023. The pillar-based data visualisations in ten different economic groups of the region allow users to pinpoint areas for improvement and identify the scope of domestic trends for regional cooperation. The dashboard provides a multi-dimensional analysis of a broad range of digital ecosystem indicators, assisting member states in identifying areas to strengthen e-resilience, where effort is needed to improve performance, enhance investment, and seek support from other member states. The new 2023 ESCAP working papers, for North and Central Asia, in particular, highlight recommendations for the recovery phase, designed from a pandemic management perspective and offer to include a new set of indicators in the analysis of e-resilience in 2024-2026, since the region faces significant challenges in enabling climate action.

Mr. Eugene Lee, President, Global Business Division, FIDO Alliance Board Member, RaonSecure Co., Ltd, presented on digital identity and services that migrated online. Digital ID refers to any credentials, data, and information online contributing to the digital ecosystem. The presentation focused on the Digital ID Framework in the Republic of Korea. The Framework includes an emphasis on legal framework, public key infrastructure (PKI); system centralisation and decentralisation, authentication (2FA); data minimisation, user consent, privacy and security, interoperability, awareness and education. The Framework covers multistakeholder examples and benefits. The strategy discussed was Ideal E-Government DID Strategy, which will be launched in 2024 to digitize individual identity using new and critical blockchain technology.

Mr. Soon Myung Hong, Head of Technical Group & SDG Action Forum CEO, Korean Professional Engineers Association, Republic of Korea, presented the ICT-based system on a control-device-sensors-control panel of foam cover technology. It removes odours, prevents air pollution, and protects the environment. The biodegrades reduce the odour to the background level within 24 hours. The Korean ICT system for Livestock Farm Odour Monitoring and Control can reduce gas emissions and prevent global warming.

Mr. Rustem Bigari, Chief Executive Director of Digital Government Support Center, Kazakhstan, presented the structured digital transformation system of the government system as a data-driven e-Gov. Kazakhstan improved its performance indicators in ten years, from 46 in 2010 to 28 in 2022, on the e-Gov Indicator, although IT infrastructure and skills still need further improvements. Kazakhstan introduced an invisible government. All decisions of the prime minister are made

based on data, not on reports, applying a “run-change-disrupt” (“process-project-change”) type of state management, applying the client-oriented infrastructure. The government speeds up its registration and automobile ownership services, and banks use blockchain technology to track real state ownership, etc. Space application systems are used to monitor land, inform on environmental pollution, and support the risk management system, saving the state budget and decreasing the risk of corruption.

Mr. Arken Arystanov, Chairman of the Board, KazAid, discussed that KazAID is ready to share experience and offer donor support to SPECA countries and developing countries through introduction of new technologies of Kazakhstan. KazAid is discussing partnership with Kazakhstani Digital Government Support Center.

Mr. Vitaliy Alexandrov, Deputy Permanent Representative of Kazakhstan at ESCAP, Embassy of Kazakhstan to the Kingdom of Thailand, invited experts to join the Task Force on the establishment and practical implementation of the DSC SD through the community of engineers and policymakers. This community would ensure the selection of the most advanced digital technologies for Central Asia and beyond and provide technical support for projects using the “donated” source codes. The country's participation principle could be organised through a human resource secondment mechanism. Kazakhstan is ready to provide initial contributions, including specific innovations on a specialised platform, using solutions with AI (for ex. in health), and 3D visualisation to ensure complete transparency in human resource management. These tools should save time, improve decision-making processes, and create inclusion and impact.

Mr. Sanat Akhannov, Chairman of the Board of “National Agency for the Development of Innovations, QazInnovations” JSC, Kazakhstan, presented on the digital ecosystem of Kazakhstan and the vision, mission, principles and key performance indicators for the joint establishment of the DSC SD (such as a quick transition to a new level of maturity, adjustment of national law and policy, engage industry experts, think tanks, etc.). DSC SD could unite the world on one platform and create a time for practical implementation of the world's best solutions in digitalisation and innovation among ESCAP members and associate members. DSC SD principles should ensure cross-country integration in digital transformation processes, application of an integrated approach, selection of best practices, support in the implementation of technical solutions, and organisation of the digital order, standards and access codes in the Asia-Pacific countries.

As a wrap up, and based on the discussions, the session moderator summarised presentations and based on the discussions of the initiative of the Government of Kazakhstan to establish a “Digital Solutions Centre for Sustainable Development” through the ESCAP resolution 79/10, highlighted that participants of the meeting requested the representative of Kazakhstan to present the tentative plan for establishing the Centre, concept note along with its operational modalities to the 8th session of the SPECA Governing Council, hosted by Azerbaijan on 23 November 2023 in Baku, as well as at the Asia-Pacific Ministerial Conference 2024.

**WORK PLAN OF THE SPECA WG ON ITSD FOR
OCTOBER 2023-DECEMBER 2025**

The activities to be carried out by the Working Group on Innovation and Technology for Sustainable Development (WG on ITSD) are demand-driven, focused on a limited number of priority topics and matched with available resources.

ACTIVITIES ENVISAGED FOR OCTOBER 2023-DECEMBER 2025

1. Capacity-building on policy options and practical instruments to promote innovation and technology for sustainable development

Objectives:

To strengthen the national capacity of the SPECA countries to advance knowledge-based development by developing relevant substantive skills, increasing the organizational capacity of the institutions involved, promoting regional cooperation and fostering investment in modern infrastructure.

Rationale:

The project is in line with the objectives of the WG on ITSD as specified in its Terms of Reference. Implementation is subject to the availability of UNECE extrabudgetary funds.

Proposed activities:

- (i) Organization of a regional/subregional capacity-building event on innovation and technology for sustainable development, possibly in conjunction with an annual session of the WG on ITSD;
- (ii) Participation of experts from SPECA countries in UNECE policy-oriented meetings and capacity-building events on promoting knowledge-based development for policymakers and practitioners; and
- (iii) Policy advisory services and other events promoting innovation and technology for sustainable development at the request of Governments of SPECA countries on priority topics, e.g. business incubators, accelerators and innovative high-growth enterprises.

2. Implementation of UNECE Innovation for Sustainable Development Reviews of selected countries

Objectives:

To increase the role of innovation in promoting further economic development of the SPECA countries.

Rationale:

The project is in line with the objectives of the WG on ITSD as specified in its Terms of Reference. Implementation is subject to the availability of UNECE extrabudgetary funds.

Proposed activities:

Undertaking Innovation for Sustainable Development Reviews and capacity building support to implementation of policy recommendations in selected countries of the SPECA region (envisaged for 2022-2024).

3. Support to SPECA countries to foster innovation to deliver the SDGs

Objectives:

Policy advisory support to SPECA countries to stimulate the private and public sector innovation required to deliver the SDGs.

Rationale:

The project is in line with the objectives of the WG on ITSD as specified in its Terms of Reference. Implementation is subject to the availability of UNECE extrabudgetary funds.

Proposed activities:

- (i) Capacity building activities upon request from SPECA countries, for example on integrating innovation policies into national strategies for sustainable development and supporting participation of SPECA countries in wider UN initiatives in support of Agenda 2030; and
- (ii) Implementation of the Action Plan of the SPECA Innovation Strategy for Sustainable Development, identifying innovative joint initiatives between SPECA countries with potential to support delivery of Agenda 2030 within the sub-region and including support to innovation policy benchmarking among the SPECA countries.

4. Promote regional connectivity and transformation of SPECA region in the framework of the Asia-Pacific Information Superhighway Action Plan 2022-2026

Objectives:

To promote regional and subregional digital connectivity and transformation by assisting SPECA countries in carrying out the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026

Rationale:

The activities are in line with the objectives of the WG on ITSD as specified in its Terms of Reference. Implementation is subject to the availability of ESCAP extrabudgetary funds.

Proposed activities:

- (i) Engagement of stakeholders (policymakers of governments, business sector and academia) of SPECA countries in implementing the Action Plan 2022-2026 of the Asia-Pacific Information Superhighway platform (APIS);
- (ii) To foster digital cooperation among SPECA countries and beyond in order to bridge the digital divide, ensure the provision of digital skills training, strengthen digital connectivity, address and enhance digital trust and security, share good policies, practices and lessons learned, and promote inclusive digital economies and societies;
- (iii) To mobilize the efforts of SPECA countries to collaborate in the digital transformation process, including under the framework of the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026;

5. Capacity development on the utilization of digital technology and geospatial information**Objectives:**

Strengthen the knowledge and capacity of SPECA countries in promoting digital connectivity and transformation towards an inclusive digital society.

Rationale:

The project contributes to the objectives of the WG on ITSD as specified in the Terms of Reference, in particular to the objective of informed disaster risk reduction and management. Implementation will be financed from the ESCAP extrabudgetary funds.

Proposed activities:

- (i) Provide technical assistance, policy analysis and capacity development and promote knowledge-sharing among SPECA countries and beyond on digital connectivity and transformation through the Asia Pacific Information Superhighway Initiative;
- (ii) Engage SPECA countries in capacity-building workshops and events of the Asia-Pacific Information Superhighway including the preparation process of the Asia-Pacific Ministerial Conference on Digital Inclusion and Transformation to be held in Kazakhstan around October 2024, and the Asia Pacific Information Superhighway Steering Committee in 2023-2025.
- (iii) Provide continued support in promoting innovative technology applications including ICT and geospatial information for SDGs.
- (iv) Explore opportunities to support capacity-building in geospatial information applications for disaster risk reduction (SAS).

- (v) Engage SPECA countries in capacity-building workshops and events of APCICT's Academy of ICT Essentials for Government Leaders Programme and Women ICT Frontier Initiatives in 2023-2025.
- (vi) Facilitate the work of the International Think Tank for Landlocked Developing Countries (ITLLDC, Ulaanbaatar) in mobilizing data collection and engaging partnership for delivery of the prototypes of connectivity tools of ESCAP on co-deployment of ICT with energy and transport infrastructure.
- (iv) Support SPECA countries, upon request, to enhance capacity on forest fire monitoring through applications of geospatial information.

6. Strengthen institutional capacity on integrating geospatial and statistical data, with a focus on drought monitoring and land accounts in Central Asia

Objectives:

Enhance the institutional capacity of Central Asian countries to integrate geospatial and statistical information.

Rationale:

The project is in line with the objectives of the WG on ITSD to support drought management and land-related SDG challenges including disaster risk reduction as specified in its Terms of Reference.

Proposed activities:

- (i) Conduct assessment of country profile on drought monitoring and land accounts with a diagnostic tool and template (patterned after ESCAP's environment statistics diagnostic tool) to identify policy priorities, available information, data sources, stakeholders and institutional mechanisms necessary to develop or strengthen the land accounts.
- (ii) Organize an inception regional workshop and expert group meetings to discuss preliminary estimates of assessment on drought monitoring and land accounts in Central Asia region, and assist capacity building on using the System of Environmental- Economic Accounting (SEEA) and the framework for integration of the geospatial and statistical information.

7. Capacity Development to reduce and mitigate disaster risks in endorheic (inland) water basins in Central Asia

Objectives:

Strengthen disaster risk reduction and management for the Aral Basin in Central Asia through analytics, sharing of best practices, and regional cooperation efforts.

Rationale:

Understanding the risk drivers of water-related disasters in inland water-basins including the impacts of climate change through advances in earth observation, digital elevation modeling,

geospatial techniques and high-resolution climate modeling can support development of regional cooperation processes that could significantly address the Aral Sea catastrophe from multi-sectoral risk management perspectives.

Proposed activities:

- (i) Prepare a literature review, risk modeling, assessing the latest scientific evidence on the Aral Sea Crisis using a multi-sectoral and multi-disciplinary approach.
- (ii) Prepare an integrated risk assessment of the Basin using the latest advances in hydrological modelling, digital elevation modelling and socio-economic modelling to demonstrate the impact of the Aral Sea Crisis on economies and populations.
- (iii) Organize a capacity development workshop on preventing and mitigating natural disaster of endorheic (inland) water basins and prepare an outcome report to submit to the ESCAP Commission at its seventy-eight session.

SUMMARY TABLE

Area of Activity	Lead Executive Agency	Timeframe
Ongoing and planned projects/activities with funding secured or expected. These activities would be implemented in mutually reinforcing way. Additional support from interested partners would expand the scope and the number of beneficiaries of these projects/activities.		
Capacity-building on policy options and practical instruments to promote knowledge-based development	UNECE	October 2023-December 2025
Implementation of the UNECE project on Innovation for Sustainable Development Reviews of selected countries	UNECE	October 2023-December 2025
Support to SPECA countries to foster innovation to deliver the SDGs	UNECE	October 2023-December 2025
Promote regional connectivity and transformation of SPECA region in the framework of the Asia-Pacific Information Superhighway Action Plan 2022-2026	ESCAP	October 2023-December 2025
Capacity development on the utilisation of digital technology and geospatial information	ESCAP	October 2023-December 2025
Strengthen institutional capacity on integrating geospatial and statistical data, with a focus on drought monitoring and land accounts in Central Asia	ESCAP	October 2023-December 2025
Capacity Development to reduce and mitigate disaster risks in endorheic (inland) water basins in Central Asia	ESCAP	October 2023-December 2025



ANNEX IV

LIST OF PARTICIPANTS

**Fourth Session of the SPECA Working Group on Innovation and Technology for Sustainable Development (WG on ITSD)
and
SPECA Workshop on Innovation and Technology for Sustainable Development (hybrid: Tashkent, Uzbekistan and online)**

N	Country/ Affiliation	First/Last Name
SPECA delegations, experts and UNECE and ESCAP representatives		
1	Economic Affairs Officer, Information and Communications Technology (ICT) & Development Section (IDS), IDD, ESCAP	Aida Karazhanova
2	Head of Innovation and Strategic Development Department, Kyrgyzpatent, Kyrgyzstan	Aisulu Mustapakulova
3	UNECE consultant	Anastasia Pankova
4	Kazakhstan representative	Arken Arystanov
5	Founder, DCube Circular Economy Innovation Cooperative of Türkiye, Turkey	Basak Demir
6	Ministry of Higher Education, Science and Innovations of Uzbekistan	Bunyod Rakhmatullaev
7	Economic Affairs Officer, IPDS, ECTD, UNECE	Christopher Athey
8	International Change Management Expert, ESCAP	Ekaterina Genkina
9	UNECE Consultant	Ekaterina Guznova
10	President, Global Business Division, FIDO Alliance Board Member, RaonSecure Co., Ltd	Eugene Lee
11	Deputy Director, State Enterprise Business-Incubator of Tajikistan	Firuzmuhammad Saidov
12	Co-Founder & CEO, Impact Hub Almaty. Kazakhstan	Indira Shah
13	Doctor of Science, expert in sustainability, former Head of Innovation at the Ellen MacArthur Foundation	Ken Webster
14	UNECE consultant	Lyudmyla Tautiyeva

15	Officer-in-Charge, Trade Facilitation Section, ECTD, UNECE	Maria Teresa Pisani
16	Regional Adviser, ECTD, UNECE	Mario Apostolov
17	Expert	Nelly Dolidze
18	Chairman of the State Committee on Science, Education and Health Affairs of Uzbekistan	Odiljon Iminov
19	Tajikistan representative	Ravshan Kurbanov
20	Director for Strategy, European Alliance for Innovation, Bulgaria	Roumen Dobrinski
21	Chief Executive Director, Digital Government Support Center, Kazakhstan	Rustem Bigari
22	Partnership and Development Finance Officer, UNRCO Uzbekistan	Rusyan Mamiit
23	Chairman of the Board of “National Agency for the Development of Innovations, “QazInnovations” JSC, Kazakhstan	Sanat Akhanov
24	Head of Technical Group & SDG Action Forum CEO, Korean Professional Engineers Association, Republic of Korea	Soon Myung Hong
25	Chief, ICT and Development Section (IDS), Information and Communications Technology and Disaster Risk Reduction Division (IDD), ESCAP	Tae Hyung Kim
26	ESCAP Consultant	Vadym Kaptur
27	Deputy Permanent Representative of Kazakhstan at ESCAP, Embassy of Kazakhstan to the Kingdom of Thailand	Vitaliy Alexandrov
28	Director "KBTU Startup Incubator", JSC "Kazakh-British Technical University", Kazakhstan	Vladimir Popov
29	First vice-president of the Association of Business Incubators and Accelerators based at universities, Kazakhstan	Yerbolat Orzbekuly
30	Head of the Innovation Ecosystem Department, Innovation and Digital Development Agency, Azerbaijan	Yevgeniya Bikmurzina

Other participants (including B2B event, 18 October)

31	Uzbekistan, Principal	Abdulazal Toshkhujayev
32	Uzbekistan, Project Manager	Abdumalik Maksudov
33	Uzbekistan, CEO	Abduxalil Rashidov
34	Uzbekistan, MentorMe, Senior Software Engineer	Abubakr Abduvakhidov
35	Kazakhstan, Deep learning researcher	Ainel Jaras
36	Uzbekistan, Manager	Akmal Muzaffarov

37	Kyrgyzstan, Professor, National Technical University of Osh	Almash Kutmanbetova
38	Uzbekistan, Head of the Department of Research, Innovation and Training of Scientific and Pedagogical Personnel	Amangeldi Mambetnazarov
39	Uzbekistan, Business Process Management	Anastasia Kiyatkina
40	Uzbekistan, Student	Anvar Shakidi
41	Uzbekistan, Faculty of Physics	Axlidin Qo'chqorov
42	Uzbekistan, CEO	Azam Makhmudov
43	Uzbekistan, Редактор	Azamat Khaydaraliev
44	Uzbekistan, Owner	Bekhzod Tukhsanbaev
45	Uzbekistan, Head of the department of strategic development, innovation and research	Bexzod Abdullayev
46	Uzbekistan, Master Student	Bunyod No'monjonov
47	Uzbekistan, Press-Secretary	Davron Ergashev
48	Uzbekistan, Student	Dilnoza Nabiyeva
49	Uzbekistan, Student	Diyora Ahmadbekova
50	UN ESCAP, Intern	Egine Margaryan
51	Uzbekistan, CEO	Elizaveta Bogdanova
52	Uzbekistan, CEO	Elizaveta Bogdanova
53	Uzbekistan, Director	Fakhriddin Rakhomov
54	Uzbekistan, Teacher of Technology	Farrukh Ravshanov
55	Uzbekistan, Deputy Director of Youth Affairs	Feruza Nizomova
56	Uzbekistan, Associate Professor of the Department of Digital Economy and Information Technologies	Fotima Anarbaeva
57	Uzbekistan, Leading Specialist	Galina Kim
58	Uzbekistan, Business Development Manager	George Maramigin
59	Kazakhstan, co-founder of HomeFood startup	Ilyas Julayev
60	Uzbekistan, Student	Iroda Ahmadbekova
61	Uzbekistan, Assistant to the Chairman of the Youth Union	Islomjon Abdurashidov
62	United Kingdom, Director of Engineering Management Programmes	Jae-Hwan Park
63	Uzbekistan, Entrepreneur	Jakhongir Miralimov
64	Uzbekistan, Project lead	Javlon Kenjaev
65	Uzbekistan	Kamoliddin Shaymuradov
66	Uzbekistan, Commercial Director	Karim Mirzakulov
67	Uzbekistan, CEO	Khamidjon Isomov
68	Uzbekistan, Leading specialist of Strategic Development, Innovations and Research Department	Komila Aminaddinova
69	Uzbekistan, Student	Komola Tukhtaeva
70	Tajikistan, Leading Specialist	Komron Saidzoda
71	Russian Federation, Master student, researcher, volunteer initiative	Kseniya Klimovich
72	Uzbekistan, Co-founder	Laziz Adkhamov
73	Uzbekistan, CEO, Yanguraz Upcycling	Liya Yangurazova
74	Kazakhstan, Associate Professor	Lyudmila Davidenko
75	Kazakhstan, Associate Professor	Madina Aliyarova
76	Uzbekistan, Student	Mahammadjonov Qudratbek
77	Uzbekistan, Doctoral student	Manzura Almatova
78	Uzbekistan, National University, Master's degree student	Ma'ruf Mamanazarov

79	Uzbekistan, Development Director	Maxim Kodzhaev
80	Uzbekistan, CEO	Mikhail Bogdanov
81	Uzbekistan, IT and Datacom specialist, researcher	Mokhirjon Rikhsivoev
82	Kyrgyzstan, Educator	Myzargul Sovetkul kyzy
83	Kyrgyzstan, Head of the Start-up Center	Nargiza Abdyldaeva
84	Uzbekistan, Head Teacher	Nargiza Muxiddinova
85	Uzbekistan, Professor, Education Center “Leader”	Natalia Li
86	Uzbekistan, Public affairs, Communications and Sustainability Director	Nazee Aripdjanova
87	Uzbekistan, Head of Protect Analysis Unit	Nizomiddin Rakhmanov
88	Uzbekistan, Head of Project	Nodirbek Kadirov
89	Azerbaijan, Student in Physics	Nuraya Mammadova
90	Uzbekistan, Assistant Mayor	Otabek Tursunov
91	Uzbekistan, Student	Oyshaxon Qodirova
92	Kazakhstan, Director	Rafis Abazov
93	Uzbekistan, Head of Operations	Rauf Divaev
94	Kyrgyzstan, Professor	Sagynbek Akbarbek uulu
95	Uzbekistan, start-up co-founder	Said Isaev
96	Uzbekistan, Software engineer	Saidavzal Abdusattorov
97	Tajikistan, Vice-Rector for International Relations	Shakhtiyor Sadullozoda
98	Uzbekistan, Master in Economic Security	Shakhzod Yakhshiev
99	Uzbekistan, Founder	Shavkat Hasanovich
100	Uzbekistan, Bachelor student	Shohijakhon Ibrokhimov
101	Uzbekistan, Country Manager	Shokhrukh Pulatov
102	Uzbekistan, Business Development Officer	Shuhrat Karimov
103	Tajikistan, Leading specialist on human resources	Sulkhia Navruzova
104	Uzbekistan, Product Manager	Taslina Sagdieva
105	Uzbekistan, Director	Timur Akhmedov
106	Uzbekistan, Student	Umida Jurayeva
107	Tajikistan, Chief Specialist of International Department	Vladimir Oganosov
108	Russian Federation, Consultant	Vladislav Gafarov
109	Uzbekistan, Director	Yulduz Usmanbekova
110	Uzbekistan, consultant	Yulia Balakina
111	Kyrgyzstan, Associate Professor	Yulia Dubova
112	Uzbekistan, Individual entrepreneur	Yury Krushinskii
113	Uzbekistan	Zarina Karimova
114	Kazakhstan, Deputy Head	Zhanar Gabdullina
115	Kazakhstan, Specialist of Business-Incubator iSpace	Zhanerkhe Mustakhim
116	Kazakhstan, Principal Manager	Zhulduz Kambarova
117	Uzbekistan, Professor	Zilolaxon Toshpo'latova
118	Uzbekistan, Senior Backend Developer	Ziyod Abdurakhimov
119	Russian Federation, Deputy Head of Laboratory	Zorikto Gomboin
