



UNECE



**Accelerating
the Circular Economy**

Annex 2.

**Development of Synergies
Between the NBIASD and Circular STEP,
UNECE's Stakeholder Engagement
Network for Circular Economy**

Road Map

I. Introduction

The United Nations Special Programme for the Economies of Central Asia (SPECA: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) is committed to the circular economy and to the collaboration within the region regarding mitigation of climate change.¹ Countries emphasize the need for responsible utilization of water and energy resources, integration of trade, transportation, and connectivity advancements with the aim of promoting a green, circular, and inclusive post-pandemic economy, and the crucial role of innovation.

Central Asia is among the regions that are most vulnerable to climate change, presenting a threat to food security and the overall well-being of a large portion of the population.² The region's vulnerability to climate change is exacerbated by rising temperatures, declining precipitation levels, and a worsening water crisis. In just 60 years, the Aral Sea – once the fourth largest in the world – has lost over 90% of its water due to the excessive and non-rational use of the waters.

A circular economy can help to make the economies of SPECA countries more resilient by reducing on negative environmental impacts, mitigating dependence on finite resources, and creation of new business opportunities and jobs (Box 1). The transition towards a circular economy is estimated³ to represent a 4.5 trillion USD global growth opportunity by 2030, while helping to restore natural systems.

Box 1. Benefits of the circular economy

The circular economy is a model for economic growth that aims to keep resources in use for as long as possible, extract the maximum value from them while in use, and then recover and regenerate products and materials at the end of their service life. Circular economy is a phenomenon that is present across most of the sectors and kinds of activities.⁴ Governments that provide incentives to businesses and consumers to become circular can create systems-wide

benefits, including supply security, economic growth and new jobs:

- Young innovative ventures that combine economic and societal goals have a 43% higher chance of **scaling up** than purely commercial companies. (World Economic Forum, 2021)⁵;
- Six million **jobs** can be created by transitioning towards a circular economy which includes activities like recycling, repair, rent and remanufacture - replacing the traditional economic model of “extracting, making, using and disposing”. (International Labour Organization, 2018)⁶;
- Circular economy can boost Europe’s **resource productivity** by 3% by 2030, generating cost savings of 600 billion euro a year and 1.8 trillion euro more in other economic benefits. (McKinsey&Company, 2015)⁷.

Whereas a supportive policy environment for the green economy is in place in SPECA countries, further steps are needed to fully unfold a transition to circular economy practices. Managing circular transition requires a comprehensive approach and developing an innovation ecosystem, where both the private and public sectors have critical roles to play. Business incubators and accelerators (BIAs) being a part of innovation policy have a strategic role in providing efficient support to their residents in elaborating profitable and at the same time socially and ecologically responsible business models. In addition to the public-led efforts of Central Asian governments, strong BIA’s support has the potential to ensure essential knowledge, competences and innovative solutions for the transition to a circular economy in the region.

The present roadmap encourages strengthening of capacities and capabilities of SPECA Network of Business Incubators and Accelerators for Sustainable Development (NBIASD) to design and

¹ UNECE, Tashkent meetings breathe new air into SPECA by bolstering sustainable connectivity for a greener, circular and inclusive economy, November 2021. Available at: <https://unece.org/media/SPECA/press/362305>

² Eurasian Development Bank, The Economy of Central Asia: A Fresh Perspective, November 2022. Available at <https://eabr.org/en/analytics/all-publications/the-economy-of-central-asia-a-fresh-perspective/>

³ WEF, It’s time for the circular economy to go global - and you can help, January 2019. Available at <https://www.weforum.org/agenda/2019/01/its-time-for-the-circular-economy-to-go-global-and-you-can-help/>

⁴ UNECE, In-depth Review of Measuring Circular Economy, ECE/CES/2021/8, June 2021. Available at

<https://unece.org/documents/2021/05/working-documents/full-version-depth-review-measuring-circular-economy-english>

⁵ WEF, Circular Trailblazers: Scale-Ups Leading the Way Towards a More Circular Economy, January 2021. Available at https://www3.weforum.org/docs/WEF_Circular_Trailblazers_report_2020.pdf

⁶ ILO, Greening with Jobs, 2018. Available at https://www.ilo.org/weso-greening/documents/WESO_Greening_EN_web2.pdf

⁷ McKinsey&Company, Europe’s circular-economy opportunity, September 2015. Available at <https://www.mckinsey.com/capabilities/sustainability/our-insights/europes-circular-economy-opportunity>

implement innovative solutions for the circular transition in SPECA countries through partnership with UNECE multistakeholder knowledge-sharing network Circular STEP.

NBIASD

UNECE has been supporting the governments of Central Asia in building the capacities of the staff of business incubators and accelerators to effectively perform their role, while also ensuring the exchange of good practices and fostering sub-regional cooperation in this area.⁸ Based on this work, in July 2022, UNECE launched NBIASD which serves as a platform for dialogue and exchange on issues, challenges and solutions, as well as training on best practices related to innovative entrepreneurship support through business incubators and accelerators in the SPECA sub-region.

Circular STEP

Following member States' decisions at the 69th Commission session on "Promoting circular economy and sustainable use of natural resources in the UNECE region", UNECE is pooling efforts to harness the power of trade and economic cooperation for the circular transition.

UNECE multistakeholder knowledge sharing network Circular STEP was launched in April 2022 to "step-up" the circular economy transition, filling gaps and creating synergies among the many practical and value-creating initiatives in the sphere of the circular economy. Its objective is to develop and disseminate evidence-based international good policy practices and unite experts from national, regional, and local governments, business and academic community, and civil society from the UNECE region. As of February 2023, Circular STEP has 27 government nominated focal points from 22 countries, 12 of which are from UNECE's 17 programme countries in Central Asia, Southern Caucasus, Western Balkan and Eastern Europe.

Since the circular economy is a wide cross-cutting topic, Circular STEP has started by zooming into eight areas: Trade, Innovation-Enhancing Procurement, Waste Management, Small and Medium

Enterprises, Traceability of Value Chains, Financing, Digital Solutions, Institutional Arrangements.

Circular STEP has built partnerships with prominent expert community and organizations in the circular economy, including the Ellen MacArthur Foundation, Finnish Innovation Fund SITRA, World Circular Economy Forum, Friedrich Ebert Stiftung, International Chamber of Commerce and the European Commission. Circular STEP has helped to connect UNECE member States to the global circular economy community.

Theory of change

NBIASD – Circular STEP is a pilot collaboration to establish and strengthen business support component of the innovative circular economy ecosystem in Central Asia. Building partnership between NBIASD and Circular STEP has a synergetic effect with ongoing technical assistance activities in the areas related to the circular economy and innovations implemented by UNECE. It has a strategic importance for the creation of a system-wide approach to the circular transition targeting both public and private sectors.

The theory of change is that NBIASD spurs circularity by inspiring new circular ventures and start-ups as well as by supporting companies to shift their business models to circular principles, which aim to reduce waste and minimize the depletion of natural resources. To facilitate the transition to a regenerative economy in Central Asia NBIASD mainstreams circular design principles across all small and growing businesses regardless of whether they are social, environmental or profit driven. With support of Circular STEP, NBIASD provides their start-ups with guidance on how to reduce waste, increase resource efficiency, and create closed-loop systems. Additionally, Circular STEP supports NBIASD in demonstrating the economic benefits of circular business models to potential investors to increase the likelihood of securing funding.

II. Background scenario

Circular economy in SPECA countries

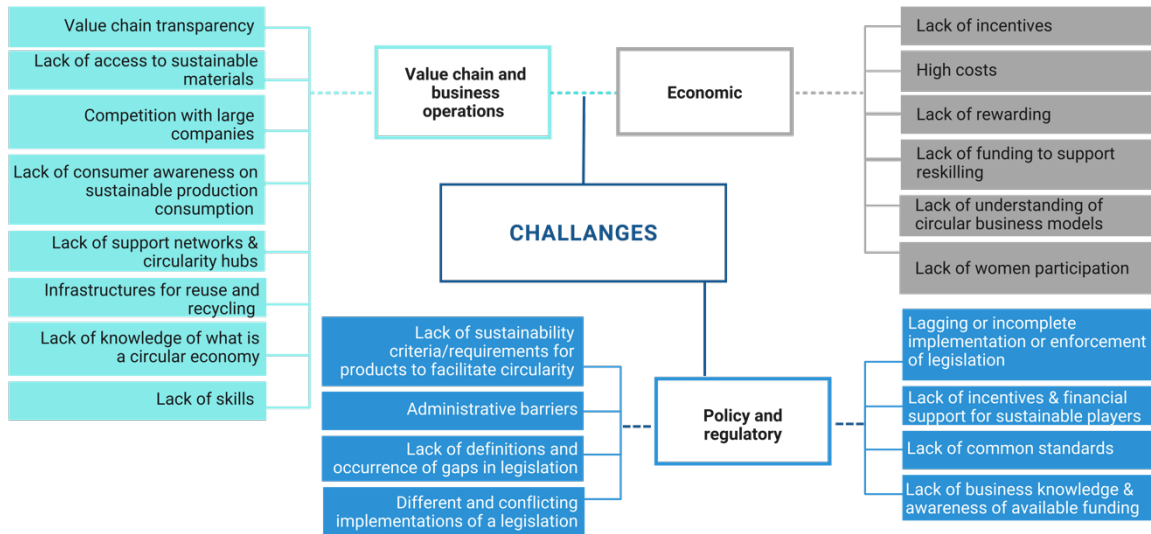
The transition to a circular economy is seen as a crucial step in ensuring the sustainable use of natural resources and reducing the environmental impacts of economic growth in the SPECA sub-region. Implementing circular economy practices

and policies in SPECA countries is still at an early stage, and many challenges need to be addressed, among which are lack of awareness and knowledge, limited access to funding and resources, infrastructure and logistics challenges, as well as cultural and regulatory barriers (Figure 1).

⁸ For more details visit UNECE Support to innovative entrepreneurship is crucial for the green and circular transformation of

Central Asia, October 2022. Available at <https://unece.org/media/SPECA/news/371418>

Figure 1. Circularity challenges in the UNECE region.



Source: Circular STEP desk research and consultations.

Azerbaijan. *Circular STEP focal point: Analysis and Coordination Centre of the 4th Industrial Revolution.*

Azerbaijan announced clean and nonresource green growth as a priority of the Azerbaijan 2030 development framework.⁹ The Government has identified four focus areas for shifting to circular economy and sustainable use of natural resources. A significant initiative is the development of a comprehensive waste management system. A state-owned company in Baku has operationalized a waste-to-energy plant and recycling has been expanded through public-private partnership at the Eco Industrial Park. Azerbaijan has announced a strategy to diversify into renewable energy and has launched two projects for solar and wind energy with foreign investment of 400 million USD. To manage scarce water resources threatened by climate change sustainably, a Commission on Water Resource Management has been set up and short- and long-term action plans and strategies are being prepared. The Government of Azerbaijan has also established a Working Group for the development of the smart cities and villages concept that

should aid the sustainable development of settlements in a number of regions across the country.

Kazakhstan. *Circular STEP focal point: n/a.*

In June 2022 the President of the Republic of Kazakhstan Kassym-Jomart K. Tokayev announced that the country should seriously consider the prospects of implementing the principles of the circular economy, especially in industry and agriculture. Some of the circular economy principles are already reflected in the National Development Plan of the Republic of Kazakhstan until 2025¹⁰. This strategic document forms the main parameters of the country's new economic course in the medium term, aimed at developing a sustainable and inclusive economy in the new conditions.¹¹ On 2 February 2023, Kazakhstan adopted its new Strategy for Achieving Carbon Neutrality¹², with circular economy as one of its core principles.

Almaty in Kazakhstan is the first city in Central Asia to identify circular economy opportunities. The city commissioned an international consortium to map resource consumption.¹³ The analysis produced new cross-sectoral circular economy strategies to

⁹ UNECE, 69th session of the Economic Commission for Europe: Biennial Report, May 2025. Available at <https://unece.org/oes/documents/2021/05/reports/69th-session-economic-commission-europe-biennial-report-9-april-2019>

¹⁰ Decree of the President of the Republic of Kazakhstan dated February 15, 2018 No. 636. "On the approval of the National Development Plan of the Republic of Kazakhstan until 2025 and the invalidation of certain decrees of the President of the Republic of Kazakhstan". Available at <https://adilet.zan.kz/rus/docs/U1800000636>

¹¹ UNECE Capacity-building on the Nexus between Sustainable Trade, Water Management, Food Security, Trade Facilitation,

and Circular Economy, 21 November 2022. Available at <https://unece.org/info/events/event/373002>

¹² Presidential Decree of 2 February 2023 No 21 "On approval of the Strategy for achieving carbon neutrality of the Republic of Kazakhstan until 2060". Available at <https://adilet.zan.kz/rus/docs/U2300000121>

¹³ Shifting Paradigms, Circle Economy, Centre for Sustainable Production and Consumption, FABRICations and Emerging Markets Sustainability Dialogues, Circular Economy Opportunities in Almaty, June 2019. Available at <https://www.circle-economy.com/resources/circular-economy-opportunities-in-almaty>

achieve the city's sustainable development ambitions.

Kyrgyzstan. *Circular STEP focal point: n/a.* In 2019 the government launched Green Economy Development Programme¹⁴. It includes circular economy considerations highlighting waste management as a focus area for the circularity of materials and aiming at reducing emissions from waste burning and dumping. They also prioritise green manufacturing, with particular emphasis on (among others) waste, and resource / energy efficiency. In 2020, a Coordination Council on Green Economy and Climate Change was formed¹⁵ to merge coordination on climate change and green economy, with the Climate Finance Centre as its Secretariat.

Tajikistan. *Circular STEP focal point: Ministry of Economic Development and Trade.* The Ministry of Economic Development and Trade developed a national Green Economy Strategy of Tajikistan until 2037. The part of the Strategy that relates to the circular economy includes: zero-waste production; recycling; efficient energy consumption in the tourism infrastructure; creation of enterprises to produce electric vehicles; the popularization of the use of bicycles as an alternative mode of transport; the production of packaging materials for multiple use instead of plastic packaging.

Under the overarching leadership of the Ministry of Economic Development and Trade, UNECE Circular STEP together with the UN Tajikistan, and in partnership with national stakeholders, will tailor¹⁶ solutions to make the manufacturing lifecycle of clothes and footwear circular.

Enhancement of circularity approaches in production processes throughout a whole value chain is a solution for achievement of country's national development goals. Tajikistan is interested¹⁷ in development of enabling policy measures and incentives for the private sector to embark on the circular economy.

Turkmenistan. *Circular STEP focal point: Ministry of Finance and Economy.* Turkmenistan recognizes the importance of reusable products and recycling. The government is working to diversify its economy, moving from a raw material orientation to stimulating the development of non-hydrocarbon industries, and continues implementing measures on climate change and to meet social needs through economic policy.¹⁸

Uzbekistan. *Circular STEP focal point: Ministry of Economy and Finance.* The circular economy is included in the second direction "Green, low carbon development of industry and the economy" of the draft Green Growth Strategic Framework which in a way represents a wider second version of the Green Economy Strategy for 2019 – 2030¹⁹. Circular related goals are also incorporated in the Solid Waste Management Strategy for 2019 – 2028²⁰, such as to recycle 60% of generated solid waste and 25% of specific solid waste. In cooperation with the European Union, SWITCH Asia, the World Bank, and UNDP the Ministry carried out the analyses of the circular economy preconditions in Uzbekistan. According to this analysis, 30% of the national economy accounts for the agriculture sector, it has the highest combined score for its socio-economic and circularity potential. Implementation of the circular economy model can essentially close loops in many segments of the agrifood value chain.

Draft Circular economy action plan for Uzbekistan include measure in the areas: bioresource utilization, including development of organic waste management; sustainable packaging solutions; water circularity in farming operations; recourse and energy efficiency in agrifood infrastructure.²¹

Start-up scene in SPECA countries

To reshape consumption and production practices, circular economy business models and supply chains need innovative practices, new technologies and new services. It is estimated that the global market for circular economy solutions will

¹⁴ Green Economy Development Program in the Kyrgyz Republic for 2019-2023. Available at <https://mineco-nom.gov.kg/ru/direct/302/335>

¹⁵ The EU Switch to Green Flagship Initiative, Green and Circular Growth – A uniting Vision for the Kyrgyz Republic. Available at <https://www.switchtogreen.eu/green-and-circular-growth-a-uniting-vision-for-the-kyrgyz-republic/>

¹⁶ For further information read UNECE supports the circular economy transition of Tajikistan's garment and footwear industry, September 2022. Available at <https://unece.org/circular-economy/news/unece-supports-circular-economy-transition-tajikistans-garment-and-footwear>

¹⁷ For more details visit UNECE Team of Specialists on Environmental, Social and Governance Traceability of Sustainable Value Chains in the Circular Economy - Second Session, 6 October 2022. Available at:

<https://unece.org/trade/uncefact/TSVCCE-2022>

¹⁸ UNECE, 69th session of the Economic Commission for Europe: Biennial Report, May 2025. Available at <https://unece.org/oes/documents/2021/05/reports/69th-session-economic-commission-europe-biennial-report-9-april-2019>

¹⁹ Resolution of the President No. PP-4477 of 2019 on the Strategy for the Transition to a Green Economy for 2019-2030. Available at <https://policy.asiapacificenergy.org/node/4379>

²⁰ Solid Waste Management Strategy for the period of 2019-2028. Available at <https://leap.unep.org/countries/uz/national-legislation/solid-waste-management-strategy-period-2019-2028>

²¹ For further information visit UNECE 1st National Policy Dialogue - Circular Economy in Tajikistan - Improving Traceability of Products Along International Value Chains, 6 September 2023. Available at: <https://unece.org/trade/events/1st-national-policy-dialogue-circular-economy-tajikistan-improving-traceability>

represent 4.5 billion USD by 2030, presenting significant opportunities for start-ups and SMEs.²²

Mainstreaming circular practices in NBIASD will require a good understanding of the basic concepts and principles of the circular economy to identify and develop circular business models among the incubated companies.

Azerbaijan. *NBIASD focal point: Innovation and Digital Development Agency.* Support for developing an innovative ecosystem is part of the mandate of the Innovation Agency's Support & Acceleration department which is responsible for designing and implementing programmes through the Barama Innovation and Entrepreneurship Center. The Innovation Agency has identified 200 start-up firms and characterized them from early stage to mature.²³

There are a number of organizations in Azerbaijan that help start-ups to launch and develop their products, including Incubator and accelerator INNOLAND²⁴, Incubator Park of the Advanced Technologies NANA²⁵ and incubation programme of NEXT STEP innovation center²⁶. Azerbaijan has also created "MSMEs Hubs" that serve MSMEs for different purposes, including online free trainings. Many MSMEs have been supported through the consultancy provided for different matters, e.g., finance and supply chains.²⁷

Kazakhstan. *NBIASD focal points: "KBTU Startup Incubator", JSC "Kazakh-British Technical University"; Association of Business Incubators and Accelerators based at universities.* Kazakhstan has spent almost two decades developing its technology entrepreneurship and a workable business incubation policy.²⁸ A range of institutions and dedicated programmes have been put in place, such as the National Innovation Fund, Domestic Venture Fund of Kazakhstan, the State Programme on Industrial and Innovative Development as well as the National Agency for Technological Development that

was renamed "QazTech Ventures» (QTV) joint-stock company (JSC) in 2019.

The Kazakhstan start-up ecosystem is a regional Leader in innovation, ranked at number 74 globally, and shows a positive momentum 2 spots since 2021.²⁹ Kazakhstan also ranks at number 1 for start-ups in Central Asia. Examples of acceleration and incubation programmes include UNDP Kazakhstan Accelerator Lab³⁰, Accelerator Astana Hub³¹ and business incubator MOST³².

Kyrgyzstan. *NBIASD focal point: the State Agency for Intellectual Property and Innovation of Kyrgyzstan (Kyrgyzpatent).* Kyrgyzpatent regularly holds "Startup Kyrgyzstan" contests and selects the best projects to participate in its acceleration program, which includes funding.³³ It also implements various programs and initiatives aimed at supporting the growth of the start-up community, enhancing start-up skills, creating funding options, facilitating market access, and providing infrastructure for prototyping and testing.

Many international donors actively support Kyrgyzstan in development of start-up acceleration programmes. For example, Accelerate Prosperity³⁴ is an initiative of the Aga Khan Organization aimed at developing entrepreneurial activity among young people, Business Professionals Network³⁵ is a Swiss foundation that runs a program for entrepreneurs, and Business Accelerator program from the USAID Competitive Enterprise project³⁶.

Tajikistan. *NBIASD focal point: n/a.* The growth of the start-up industry in Tajikistan is still in its early stages, with various government bodies implementing programs to support start-ups and innovation. However, the lack of favorable lending options, an incomplete legal framework, and a complicated tax system pose significant challenges for

²² WEF, It's time for the circular economy to go global - and you can help, 2019. Available at <https://www.weforum.org/agenda/2019/01/its-time-for-the-circular-economy-to-go-global-and-you-can-help/>

²³ UNECE, Supporting Innovative High-Growth Enterprises in Eastern Europe and South Caucasus, August 2021. Available at <https://unece.org/economic-cooperation-and-integration/publications/supporting-innovative-high-growth-enterprises>

²⁴ Innoland, Homepage. Available at <http://innoland.az/>

²⁵ Park of the Advanced Technologies NANA, Homepage. Available at <https://ameaytp.az/en/>

²⁶ NEXT STEP innovation center, Homepage. Available at <https://icnextstep.com/>

²⁷ For further information watch UNECE webinar "Policies & Practices on Supporting MSMEs in Harnessing Opportunities From Sustainable Trade, Innovation & a Circular Economy, 8 June 2022. Available at <https://unece.org/trade/events/webinar-6-policies-practices-supporting-msmes-harnessing-opportunities-sustainable>

²⁸ UNECE, Business Incubators for Sustainable Development in the SPECA Sub-region, October 2021. Available at

<https://unece.org/economic-cooperation-and-integration/publications/business-incubators-sustainable-development-spec>

²⁹ StartupBlink, Kazakhstan Startup Ecosystem Overview. Available at <https://www.startupblink.com/startup-ecosystem/kazakhstan>

³⁰ UNDP Kazakhstan Accelerator Lab. Available at <https://www.undp.org/acceleratorlabs/undp-kazakhstan-accelerator-lab>

³¹ Accelerator Astana Hub, Homepage. Available at <https://astanahub.com/en/>

³² MOST, Homepage. Available at <https://most.com.kz/>

³³ Start-up Central Eurasia, Market information on Kyrgyzstan. Available at <https://startupcentraleurasia.com/en/faq/v/7>

³⁴ Accelerate Prosperity Kyrgyzstan. Available at <https://kg-accelerateprosperity.org/about>

³⁵ BPN, Update from Kyrgyzstan. Available at <https://bpn.ch/en/story/update-kirgistan22/>

³⁶ USAID Enterprise Competitiveness Project. Available at <https://www.usaid.gov/kyrgyz-republic/fact-sheets/usaid-enterprise-competitiveness-project>

start-up entrepreneurs and hinder the growth of the industry in the country.³⁷

Many international donors actively support Tajikistan in development of start-up acceleration programmes. For example, Accelerate Prosperity Tajikistan³⁸ an initiative of the Aga Khan Organization to develop small and medium-sized businesses in Central and South Asia. Some notable start-up success stories (e.g., Alif Bank) are boosting the morale of the start-up ecosystem, generating investment interest in start-ups.³⁹

Turkmenistan. *NBIASD focal point: Union of Economists.* Union of Economists of Turkmenistan, with support of USAID and Future Growth Initiative, has launched a pilot program for creating start-ups in line with the Concept for the Development of the Digital Economy until 2025.⁴⁰ The goal of the program is to expand the potential of the innovation market in Turkmenistan through interaction with successful mentoring companies, allowing to provide these companies with the necessary knowledge and skills for their successful activity in this direction in the future. In addition, the programme is dedicated to improving the conditions for the development of youth business and creation of new high-tech jobs.

Uzbekistan. *NBIASD focal point National Office for Innovation Implementation and Technology*

Transfer of Uzbekistan; C.A.T. Science Accelerator. Uzbekistan has established ambitious goals and made significant policy initiatives to enhance its innovation infrastructure. This includes the creation of free economic zones and science and technology parks, as well as the growth of start-up support, including innovation centers, incubators, and accelerators.

As identified in the UNECE Innovation for Sustainable Development Review of Uzbekistan⁴¹, given the recency of measures and the novelty of the concept of start-ups in the country, there is the need to further strengthen support for start-up creation, provide incentives for cooperation on innovation support initiatives and enhance understanding of the benefits of entrepreneurship. This includes targeted start-up support towards greening industry.

The Uzbekistan Startup Ecosystem is ranked at number 115 globally and shows a positive momentum 115 spots since 2021. Uzbekistan also ranks at number 3 for start-ups in Central Asia.⁴²

There are a number of acceleration platforms in Uzbekistan, such as Acceleration Program IT Park⁴³, C.A.T. Science Accelerator for Central Asia⁴⁴, Water Solutions Innovation Lab⁴⁵ and StartupFactoryuz⁴⁶.

III. Action Points

Output 1. Capacity building component.

NBIASD members strengthen their administrative capacity to integrate circular principles in entrepreneur support programs and to promote the circular economy within their respective organizations.

Circularity has primarily been viewed as a way to enhance environmental sustainability, but its potential for improving resilience, resource utilization, and economic growth has been overlooked⁴⁷. To avoid this misunderstanding in the SPECA region, the roadmap proposes to develop an efficient

capacity building programme and guidance materials for NBIASD. The programme will provide a complex vision of circular economy benefits and thus encourage participating business incubators and accelerators to effectively build work with green and circular start-ups, MSMEs, and entrepreneurs.

Activity 1.1. Development of a comprehensive training program would be beneficial for NBIASD to understand the circular economy, and to be able to support start-ups and MSMEs in implementing

³⁷ Start-up Central Eurasia, Market information on Tajikistan. Available at <https://startupcentraleurasia.com/en/faq/v/6>

³⁸ Accelerate Prosperity in Tajikistan. Available at <https://tj.accelerateprosperity.org/>

³⁹ CAREC Startup Ecosystem, Main Strengths of the CAREC Startup Ecosystem. Available at <https://www.startupcarec.org/startup-ecosystem>

⁴⁰ Union of Economists of Turkmenistan, Startup Ecosystem Program in Turkmenistan. Available at <http://startup.tyb.com.tm/en/>

⁴¹ UNECE Innovation for Sustainable Development Review of Uzbekistan, March 2022. Available at <https://unece.org/info/Economic-Cooperation-and-Integration/pub/366072>

⁴² StartupBlink, Uzbekistan Startup Ecosystem Overview. Available at <https://www.startupblink.com/startup-ecosystem/uzbekistan>

⁴³ Acceleration Program IT Park, Homepage. Available at <https://it-park.uz/en/itpark>

⁴⁴ C.A.T. Science Accelerator for Central Asia, Homepage. Available at <https://cat-sa.uz/>

⁴⁵ Water Solutions Innovation Lab, Homepage. Available at <http://smartwaterlab.uz/>

⁴⁶ StartupFactoryuz, Homepage. Available at <https://startupfactory.uz/en/>

⁴⁷ For further information visit World Economic Forum, Circular Transformation of Industries: Unlocking New Value in a Resource-Constrained World, January 2023. Available at <https://www.weforum.org/whitepapers/circular-transformation-of-industries-unlocking-new-value-in-a-resource-constrained-world>

circular economy principles in their business models (Box 2). The training programme will raise awareness among NBIASD members about the benefits of circular economy and the steps they can take to adopt its principles in practice. Circular STEP can organise a series of training for NBIASD on the following range of thematic areas:

- Circular economy principles and concepts;
- Circular business models;
- Circular economy in specific industries, including specific challenges and opportunities in these industries, as well as best practices for implementing circular economy solutions;
- Circular economy regulations and policies, including relevant laws, regulations, incentives and funding opportunities that are available for private sector in the UNECE region;
- Innovative technologies for circular value chains, including production, distribution, use and service, collection (reverse logistics), remanufacturing, repairing and recycling.

Activity 1.2. Development of guidance materials for NBIASD as well as for incubated enterprises on the role of innovations for the circular transition adopted to the regional and/or national contexts. The format of the practical guidance materials can be tailored to concrete industry, for example, leather, textiles, agrifood, services or other industry that is important for the socio-economic development in the SPECA sub-region.

Activity 1.3. Organization of workshops based on the developed circular economy guidance documents and training materials. The workshops will be held in an interactive manner and further **support development of NBIASD mentorship programmes**.

Box 2. Circular business models

OECD defines five headline business models for a more circular economy⁴⁸:

- **Circular supply models**, by replacing traditional material inputs derived from virgin resources with bio-based, renewable, or recovered materials, reduce demand for virgin resource extraction in the long run;
- **Resource recovery models** recycle waste into secondary raw materials, thereby diverting waste from final disposal while

also displacing the extraction and processing of virgin natural resources;

- **Product life extension models** extend the use period of existing products, slow the flow of constituent materials through the economy, and reduce the rate of resource extraction and waste generation;
- **Sharing models** facilitate the sharing of under-utilised products, and can therefore reduce demand for new products and their embedded raw materials;
- **Product service system models**, where services rather than products are marketed, improve incentives for green product design and more efficient product use, thereby promoting a more sparing use of natural resources.

McKinsey&Company identified six circular economy activities that have the potential to improve performance and reduce cost in 28 industries⁴⁹:

- Shifting to renewable energy and materials;
- Promoting the sharing of products or otherwise prolonging product life spans through maintenance and design;
- Improving product efficiency and removing waste from supply chains;
- Keeping components and materials in “closed loops” through remanufacturing and recycling;
- Delivering goods and services virtually;
- Replacing old materials with advanced renewable ones or applying new technologies such as 3-D printing.

Output 2. Knowledge sharing component.

NBIASD advances knowledge and acquires information on Circular STEP members’ policies and practices related to the circular economy and innovations.

For NBIASD to play a critical role in fostering innovation and supporting the development of new circular business opportunities in SPECA countries it is important to advance their knowledge and acquire information on good policies and practices. That will ensure that NBIASD support and services are relevant and in line with the needs of the market and enable its members to provide start-ups with accurate and up-to-date information for development and scaling businesses in line with good practices and regulatory requirements.

⁴⁸ OECD, Business Models for the Circular Economy – Opportunities and Challenges from a Policy Perspective, October 2018. Available at <https://www.oecd.org/environment/waste/policy-highlights-business-models-for-the-circular-economy.pdf>

⁴⁹ McKinsey&Company, Mapping the benefits of a circular economy, June 2017. Available at <https://www.mckinsey.com/capabilities/sustainability/our-insights/mapping-the-benefits-of-a-circular-economy>

Activity 2.1. Study tours for NBIASD members to gain hands-on experience, visit leading organizations and institutions, and engage with experts and policymakers in countries who achieved a considerable progress in supporting private sector in the circular agenda (Box 3). Study tours will provide valuable insights into the implementation of circular economy principles, including product design, waste management, resource efficiency, and the role of government and industry in promoting circular innovations.

Activity 2.2. An annual peer-learning conference on emerging best practices in the cross-cutting areas of circular economy and innovations. An annual NBIASD – Circular STEP conference on the circular economy will serve as a platform for sharing emerging good practices, promoting peer-to-peer learning, facilitating discussions and collaboration among stakeholders. The target audience of the event includes NBIASD focal points and members, innovative business hubs, incubators and accelerators from other UNECE sub-regions.

Box 3. Examples of study visits

Israel. The Israeli Ministry of Environmental Protection and Ministry of Economy developed the Sustainable Consumption and Production National Action Plan⁵⁰ as part of their efforts to meet Agenda 2030 and the Sustainable Development Goals. This plan, which focuses on sustainable consumption and production, was developed under the EU-funded SwitchMed program with support from the United Nations Environment Programme⁵¹. The implementation of the plan is ongoing through selected projects and initiatives on Environmentally Efficient Restaurants and Dining Establishments, Green Label for Businesses, Sustainable Industrial Zones and Sustainable Public Procurement in collaboration with Israeli Ministry of Environmental Protection.⁵²

Israel is widely recognised as the “Start-up Nation” and a leader in innovation in a number of cleantech fields.⁵³ The country is widely recognised as one of the most advanced countries in a number of technologies, including green technologies, with a considerable number of entrepreneurs who are developing state of the art

solutions for supporting the green transition. The Israel Innovation Authority is an important policy player in Israel’s start-up ecosystem, through its role in developing a network of technological incubators and innovation labs and allocating funding to researchers and entrepreneurs. Israel runs a national network of technological incubators, managed by private entities, which support the establishment of start-ups as they transition from an idea to a commercial product.

Switzerland. As a country with few raw materials, Switzerland has been pursuing circular economy approaches for more than 30 years. Swiss government-led measures are based on the precautionary principle and the polluter-pays principle, as well as on cutting-edge technology, innovations, collaboration with industry and, where necessary, new regulations.⁵⁴ The Federal Office for the Environment is supporting the transition towards a circular economy by promoting environmental technology and through its green public procurement office. It also works with organisations that promote the circular economy, such as Circular Economy Switzerland⁵⁵, Go for Impact and Ressourcen-Trialog⁵⁶.

Circular Economy Transition Incubator⁵⁷ is a Swiss-wide incubation for start-ups in circular economy. This incubator enables teams and start-ups to prototype and develop solutions contributing to accelerate the transition towards the circular economy in Switzerland. During the program, selected entrepreneurs work on developing their minimum viable product (MVP) and validating their business model, with the support from advisors, experts and our network of impact investors. For 12 weeks, the participants benefit from several elements of support that empower them to bootstrap an MVP and validate its market potential with customers.

France. France is highly regarded for its efforts in minimizing waste and promoting a circular economy. The country made history as the first to implement the European circular economy

⁵⁰ Sustainable Consumption and Production National Action Plan for Israel (2015 – 2020). Available at <https://wedocs.unep.org/bitstream/handle/20.500.11822/33983/SCPR.pdf?sequence=1&isAllowed=y>

⁵¹ SwitchMed, Israel National Policy Hub. Available at <https://switchmed.eu/policy/scp-naps-monitoring-implementation/israel/>

⁵² For more information visit UNEP, Sustainable Consumption and Production National Action Plan in Israel, December 2015. Available at <https://www.unep.org/fr/node/28459>

⁵³ OECD (2022), Policies to Support Green Entrepreneurship: Building a Hub for Green Entrepreneurship in Denmark, OECD

Studies on SMEs and Entrepreneurship, OECD Publishing, Paris, <https://doi.org/10.1787/e92b1946-en>

⁵⁴ Federal Office for the Environment FOEN, Circular economy. Available at <https://www.bafu.admin.ch/bafu/en/home/topics/economy-consumption/info-specialists/circular-economy.html>

⁵⁵ Circular Economy Switzerland, Homepage. Available at <https://circular-economy-switzerland.ch/?lang=en>

⁵⁶ Ressourcen-Trialog, Homepage. Available at <http://www.ressourcentrialog.ch>

⁵⁷ Circular Economy Transition Incubator, Homepage. Available at <https://www.cetransition.ch/en/incubator-2020>

directives into national law.⁵⁸ In April 2018, the French government released its circular economy roadmap⁵⁹, which was prepared by the Ministry for an Ecological and Inclusive Transition and the Ministry for the Economy and Finance. The French government provides funding for research and development in the circular economy through organizations such as French Environment and Energy Management Agency (Agence de l'Environnement et de la Maîtrise de l'Energie, ADEME). There are also local stakeholder networks connected to the industrial sector that are actively working towards advancing the circular economy in France, such as Organization for the Respect of the Environment in a Company (Organisation pour le Respect de l'Environnement dans l'Entreprise, ORÉE) and Institut National de l'Économie Circulaire.

Circul'R⁶⁰ is an international network of circular economy start-ups in France. Its mission is to unlock the circular economy's potential by connecting innovative start-ups with companies so that they can co-create solutions to accelerate their transition towards the circular economy. Its main services include: (1) raising awareness (conferences to explain circular economy by presenting the most innovative circular solutions), (2) learning expeditions (bringing people on the field to meet with circular economy entrepreneurs and their projects), (3) consultancy (business opportunities, funding, etc.), (4) Circul'R Club (bringing together large companies and start-ups with the objective of co-creating concrete projects in the field of circular economy: waste management, eco-design, new business models, etc.).

Output 3. Networking and partnerships component. NBIASD with support of Circular STEP establishes relationships with key stakeholders in the national circular economy ecosystem, such as government agencies, research

institutions, and other business incubators and accelerators.

Expanding innovative circular economy in SPECA countries should involve a wide range of players across different industry sectors, geographic locations, and value-chain stakeholders. Partnerships cannot be effective or cost-efficient if well-established companies and innovative high-growth enterprises do not participate.

Activity 3.1. Organization of B2B country-level events to facilitate collaboration between circular economy start-ups and MSMEs and established firms. The events will provide a platform for circular start-ups to showcase their products and services, while established firms can learn about new and innovative solutions in the circular economy. By bringing together different stakeholders, these events can help to drive the growth and adoption of circular business models and building cross-sectoral linkages.

Activity 3.2. Organization of a policy dialogue for SPECA governments and NBIASD to identify existing challenges in empowering and supporting private sector to embark on innovative circular business models. Circular STEP will provide a platform for collaboration between NBIASD and government focal points, allowing for the sharing of information and the co-creation of policies. This will serve an insightful source of information and market overview for governments in Central Asia to formulate efficient policies and regulations that support the development of sustainable and circular economy.

Activity 3.3. Development of a feasibility study on creation of pilot NBIASD Circular Innovation Lab to provide a physical and digital space where start-ups can develop, test, and refine their circular economy solutions. Feasibility study should also consider the potential impact of NBIASD Circular Innovation Lab on commercialization efforts at higher-education institutions.

IV. Next Steps

UNECE prepared the present draft Roadmap on Development of Synergies between the NBIASD and Circular STEP in February 2023 and will distribute it among NBIASD focal points for comments and suggestions, as well as elaborate on additional action points if requested. Implementation of the Roadmap will be supported by the UNECE project "Strengthening innovation policies for SPECA countries in support of the 2030 Agenda for Sustainable Development" subject to available project funds. Furthermore, the UNECE secretariat will reach out to donor countries for discussion of new extrabudgetary opportunities for carrying out activities of the Roadmap if one of the SPECA countries expresses such an interest.

⁵⁸ European Sustainable Business Federation ECO-PRENEUR.EU, Circular Economy Update – Overview of Circular Economy in Europe, 2019. Available at <https://circulareconomy.europa.eu/platform/sites/default/files/ecopreneur-circular-economy-update-report-2019.pdf>

⁵⁹ Roadmap for the Circular Economy: 50 Measures to Achieve 100% Circular Economy. Available at <https://www.ecologie.gouv.fr/sites/default/files/FREC%20anglais.pdf>

⁶⁰ Circul'R, Homepage. Available at <https://en.circul-r.com/>