



# **Science, technology and innovation (STI) gap assessment of the SPECA countries**

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# Methodology



- Two main pillars of the assessment of SPECA countries STI policies and performance :
  - International benchmarking of SPECA countries STI performance
  - National STI gap assessments undertaken by national experts using common methodology
- This dual analysis helps to identify existing common gaps and problems in the area of STI
- The conclusions of the STI gap assessment serve as a basis to formulate recommendations on joint collaborative activities for closing some STI gaps

# International benchmarking



- IB is a method for assessing the relative standing of different countries in various socioeconomic aspects
- For our purpose we seek to assess STI achievements and existing problems in the SPECA countries in an international perspective
- We look at three different perspectives:
  - Comparing SPECA countries with the global leaders
  - Measuring the SPECA countries performance vis-à-vis selected comparator countries
  - Comparing the SPECA countries performance with each other

# Benchmarking: Global innovation index (GII)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011-20 average	Rank in 2020 <sup>2)</sup>
Afghanistan	..	..	..	..	..	..	..	..	..	..	..	..
Azerbaijan	29.2	30.4	29.0	29.6	30.1	29.6	30.6	30.2	30.2	27.2	29.6	82
Kazakhstan	30.3	31.9	32.7	32.8	31.3	31.5	31.5	31.4	31.0	28.6	31.3	77
Kyrgyzstan	29.8	26.4	27.0	27.8	28.0	26.6	28.0	27.6	28.4	24.5	27.4	94
Tajikistan	24.5	26.4	30.0	23.7	27.5	29.6	28.2	26.5	26.4	22.2	26.5	109
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Uzbekistan	..	23.9	23.9	25.2	..	..	..	..	..	24.5	24.4	93
China	46.4	45.4	44.7	46.6	47.5	50.6	52.5	53.1	54.8	53.3	49.5	14
Korea, Republic of	53.7	53.9	53.3	55.3	56.3	57.2	57.7	56.6	56.6	56.1	55.7	10
Russian Federation	35.9	37.9	37.2	39.1	39.3	38.5	38.8	37.9	37.6	35.6	37.8	47

# Benchmarking: R&D expenditure, % of GDP

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010-18 average
Afghanistan	..	..	..	..	..	..	..	..	..	..
Azerbaijan	0.22	0.21	0.21	0.21	0.21	0.22	0.21	0.18	0.18	0.21
Kazakhstan	0.15	0.15	0.17	0.17	0.17	0.17	0.14	0.13	0.12	0.15
Kyrgyzstan	0.16	0.16	0.17	0.15	0.13	0.12	0.11	0.11	..	0.14
Tajikistan	0.09	0.12	0.11	0.12	0.12	0.11	0.11	0.12	0.10	0.11
Turkmenistan	..	..	..	..	..	..	..	..	..	..
Uzbekistan	0.20	0.19	0.20	0.20	0.16	0.17	0.18	0.16	0.13	0.18
China	1.71	1.78	1.91	2.00	2.03	2.07	2.12	2.15	..	1.97
Korea, Republic of	3.47	3.74	4.03	4.15	4.29	4.22	4.23	4.55	..	4.08
Russian Federation	1.13	1.01	1.03	1.03	1.07	1.10	1.10	1.11	..	1.07

# Benchmarking: Internet use, % of the population



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010-18 average
Afghanistan	4.0	5.0	5.5	5.9	7.0	8.3	11.2	13.5	..	7.5
Azerbaijan	46.0	50.0	54.2	73.0	75.0	77.0	78.2	79.0	79.8	68.0
Kazakhstan	31.6	50.6	61.9	63.3	66.0	70.8	74.6	76.4	78.9	63.8
Kyrgyzstan	16.3	17.5	19.8	23.0	28.3	30.2	37.0	38.0	..	26.3
Tajikistan	11.6	13.0	14.5	16.0	17.5	19.0	20.5	22.0	..	16.7
Turkmenistan	3.0	5.0	7.2	9.6	12.2	15.0	18.0	21.3	..	11.4
Uzbekistan	15.9	18.6	23.6	26.8	35.5	42.8	46.8	52.3	55.2	35.3
China	34.3	38.3	42.3	45.8	47.9	50.3	53.2	54.3	..	45.8
Korea, Republic of	83.7	83.8	84.1	84.8	87.6	89.9	92.8	95.1	96.0	88.6
Russian Federation	43.0	49.0	63.8	68.0	70.5	70.1	73.1	76.0	80.9	66.0

# National STI gap assessments: methodology



- Uniform methodology for the 7 SPECA countries
- Part A. Analytical overview of national STI governance
  - STI priorities; governance structure; policy formulation; policy instruments; policy implementation and coordination
- Part B. Key challenges and problems in fostering STI development

*(Based on the results of a stakeholder survey with key STI stakeholders):*

- Sectors with high innovation potential; effectiveness of STI policy and instruments; framework conditions; key existing problems hindering innovative development; proposed policy changes

# Priority sectors for innovative development

No.	Economic sector/industry	Countries that indicated it as top priority	
		No.	Countries
1	ICT, Telecommunications	6	Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan
2	Mining	6	Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan
3	Agriculture	6	Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan
4	Electricity, Energy	5	Afghanistan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan
5	Transportation	4	Afghanistan, Azerbaijan, Kazakhstan, Turkmenistan
6	Banking/Finance	3	Afghanistan, Azerbaijan, Tajikistan
7	Light industry, textiles	2	Kyrgyzstan, Uzbekistan
8	Chemical industry	2	Turkmenistan, Uzbekistan



# STI policy instruments applied in the SPECA countries

Policy instruments	Afghanistan	Azerbaijan	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
Grants for fundamental research	x	x	x	x	x		x
Grants for applied research	x	x	x	x	x		x
Grants for innovative startups		x	x	x	x	x	x
Innovation vouchers			x				
Coaching programmes for innovative startups		x	x	x			x
Competitions for innovative startups		x	x	x	x	x	x
Incubation and acceleration programmes for innovative startups	x	x	x	x	x	x	x
Entrepreneurship support programmes	x	x	x	x	x	x	x
Credit guarantees for innovative SMEs							x
Equity investment in innovative SMEs (venture financing)			x			x	x
Grants for the commercialization of R&D results	x		x		x		x
Tax incentives for R&D and/or technological development in the business sector	x	x	x	x	x		x
Budget subsidies for R&D and/or technological development in the business sector		x					x
Subsidized credit for R&D and/or technological development in the business sector		x	x				x
Grants for full cycle STI projects (from R&D to market)					x		x
Grants for industry-science cooperation in STI projects	x		x				x
Support to industrial clusters	x	x			x		x
STI grants from international donors (World Bank, Asian Development Bank, etc.)	x		x	x	x	x	x

# Effectiveness of STI policy instruments

No.	Policy aspects	Average scores assigned by stakeholders in individual countries							SPECA average score
		Afghanistan	Azerbaijan	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan	
1	The national authorities assign high importance to the development of science, technology and innovation (STI)	3.2	3.1	3.3	3.5	3.1	4.2	4.0	3.5
2	The national STI priorities and strategic directions of STI development are well formulated and widely publicised	3.7	3.2	3.3	3.4	3.1	4.0	3.2	3.4
3	The officially proclaimed national STI priorities correspond to sectors and businesses with high innovation potential	3.7	3.2	3.2	3.5	3.3	4.4	3.2	3.5
4	There is clear division of responsibilities between the public bodies tasked with STI governance	3.6	4.0	3.7	3.3	3.5	3.9	3.0	3.5
5	There is good coordination in the functioning of the different public bodies tasked with STI governance	3.8	3.8	3.8	3.1	3.5	3.6	2.9	3.4
6	The functioning of the main R&D institutions in the country is well guided and managed	4.3	4.1	3.7	3.2	3.2	4.1	3.1	3.7
7	The authorities allocate sufficient public funds to the support of STI activities	3.9	3.5	3.8	3.2	3.4	3.8	3.1	3.5
8	The policy instruments used to support STI activity are efficient and well managed	3.8	3.2	3.8	3.4	3.4	3.5	3.0	3.4

# Framework conditions and business environment



No.	Aspects of the framework conditions and business environment	Average scores assigned by stakeholders in individual countries						SPECA average score	
		Afghanistan	Azerbaijan	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan		Uzbekistan
1	The authorities make efforts to reduce the administrative hurdles to doing business	3.2	2.1	3.1	2.9	2.9	4.8	3.4	3.2
2	The authorities assign high priority to SME development; access to public support	3.5	2.2	3.1	3.5	2.8	4.4	3.7	3.4
3	Entrepreneurship is encouraged and the supported by the authorities	3.4	2.4	3.2	3.5	3.0	4.6	3.7	3.4
4	It is relatively easy for entrepreneurs to start and develop a new business	3.4	2.2	3.3	3.6	3.0	4.1	3.5	3.3
5	Businesses cooperate with R&D institutions for R&D commercialization	3.7	4.2	3.9	3.2	3.5	3.7	2.4	3.4
6	Universities encourage the establishment of academic startups and spin-offs	3.5	2.9	3.3	2.7	3.5	3.8	2.5	3.2
7	Intellectual property rights are well protected by law and regulations	3.4	2.8	3.3	2.9	2.9	4.0	2.9	3.2
8	Innovators and SMEs have access to public funds for early stage development	4.0	3.5	2.5	3.3	3.3	3.5	3.1	3.3
9	There is private funding support to innovators / SMEs in the early stages	3.9	3.9	3.3	2.5	3.3	3.0	2.3	3.1
10	SMEs have easy access to bank credit a for the development of their business	3.3	3.8	3.4	2.6	3.5	3.7	2.7	3.3

# Main common problems hindering STI: areas that need improvement

- Administrative hurdles
- Access to finance for startups
- Level of government support to STI
- Performance of the public administration
- Policy coordination
- Framework conditions
- Industry-science collaboration
- General STI capabilities and skills
- Business skills
- Education system
- Small domestic market

# Most important proposed reforms

- Reduce administrative barriers
- Implement result-oriented approach in STI policy
- Capacity development for STI practitioners
- Improve inter-agency collaboration & coordination
- Improve the prioritization of STI activity
- Increase public funding of STI activity
- Improve access to finance
- Enhance financial incentives to knowledge-based industries
- Introduce new mechanisms and means to support tech-savvy industries

# Covid19-related policy measures in the SPECA countries

Country	Fiscal measures	Monetary measures	Measures targeting STI activity	International support
Afghanistan	Health package amounting to Af 6.2 billion, including for building hospitals; Social package, including bread distribution program of Af 2.8 billion and the World Bank-supported social distribution program of Af 20.8 billion; Wheat purchase program (Af 1.7 billion); Package to support agriculture (Af 5.9 billion) and short-term jobs (Af 1.0 billion).	Easing of prudential regulations	..	World Bank grant
Azerbaijan	Increasing spending on public health (AzN 8.3 million); creation of a COVID Response Fund for public health needs (AzN 114 million). Construction of ten modular hospitals; Support to the affected businesses and individuals in the amount of AzN 3.3 billion; tax benefits to affected businesses; social assistance for unemployed and low-income people	Easing of prudential regulations; Transfer from the Oil Fund	Support to affected entrepreneurs (Entrepreneurship Development Fund)	Swap agreement with the EBRD
Kazakhstan	Anti-crisis package including cash payments to the unemployed and self-employed, an increase in pension and social benefits, additional health spending, and support for employment and business. Additional subsidized lending of KZT 1 trillion. Tax incentives to agriculture and hard-hit sectors	Easing of prudential regulations	Actions to help SMEs including credit support and loan repayment deferrals	..
Kyrgyzstan	Health sector contingency plan to provide training for health-care workers, procure personal protective equipment and medical tests. Package of anti-crisis measures including the postponement of tax payments and exemptions of property and land taxes, temporary price controls on essential food items, food security program to the vulnerable groups and subsidized credit to banks.	Easing of prudential regulations	Temporary tax exemptions for SMEs	Emergency financial support from IMF (US\$121 million)
Tajikistan	VAT exemptions on essential imports; lump-sum assistance to vulnerable households and socially disadvantaged groups; supplemental pay to health workers; tax holidays and relief to targeted industries and small businesses	Easing of prudential regulations. Loan restructuring for affected businesses	Tax holidays and relief to SMEs	Emergency budget support from IMF (US\$190 million)
Turkmenistan	Increase in health spending; support to businesses affected by the containment measures through tax relief and assistance in providing raw materials. Increase in custom duties to protect domestic suppliers. Special regime for essential and high-priority imports and projects	Subsidized loans to affected businesses	..	..
Uzbekistan	Increase funding for healthcare, including for medicines and salaries of medical employees; expand the access to social benefits; provide assistance to affected businesses via interest subsidies; additional public works in different regions to support employment. Tax relief for affected businesses; grace period on property taxes.	..	Tax relief for individual entrepreneurs	..

# Conclusions: STI gaps from the international perspective



- On average the SPECA countries lag considerably behind the countries that are considered as innovation leaders
- Mismatch between declared priorities and policy objectives (where STI features high in all SPECA countries) and the actual STI achievements
- The dynamics in recent years is unfavourable: the gaps increase rather than close

# Conclusions: gaps in the innovation ecosystems



- Poor connectivity and linkages among innovation stakeholders
- Systemic failures (coordination, institutional, framework, network)
- Fragmentation of innovation governance
- Low incentives for entrepreneurship
- Unsatisfactory innovation support institutions
- Underdeveloped financial systems
- Insufficient early stage financing
- Need to improve the functioning of the public administration



# Conclusions: gaps in the policy environment and instruments

- Limited amounts of public resources allocated to support STI activity
- Limited portfolio of STI policy instruments
- Early stage financing is a highly insufficient
- Limited instruments supporting full cycle innovation projects
- Limited or missing instruments supporting industry-science cooperation
- Limited or missing instruments addressing systemic failures

# Recommendations for SPECA cooperative actions



- **Part 1. Actions aimed at strengthening the national innovation systems in the SPECA countries**
  - 1.A Actions aimed at national capacity development in STI management
  - 1.B Actions aimed at strengthening the innovation systems and improving STI governance
  - 1.C Actions aimed at improving national STI policy making
  - 1.D Actions aimed at overcoming the implications of the Covid-19 pandemic

# Recommendations for SPECA cooperative actions (contd.)



- **Part 2. Actions aimed at boosting innovation for sustainable development in the SPECA countries**
  - 2.A Actions facilitating the cross-border diffusion of innovations for sustainable development
  - 2.B Actions supporting the transfer of innovative technologies addressing SD challenges
  - 2.C Actions aimed at strengthening sub-regional cooperation in STI for sustainable development

# Proposals for the SPECA Innovation Strategy Action Plan 1

Description of actions	Scope (R = regional; N= national)	UN instru- ments	Timeline
<b>Part 1. Recommendations on possible actions of general character, aimed at strengthening the national innovation systems in the SPECA countries</b>			
<b><i>1.A Actions aimed at national capacity development in STI management</i></b>			
Capacity development seminars, with leading international experts, on innovation policies for sustainable development for SPECA STI policy-makers and stakeholders	N, R	UNECE, ESCAP	2021
Hands-on skill-building workshops, with leading international experts, for SPECA innovation practitioners and stakeholders on practical policy implementation issues	N, R	UNECE, ESCAP	2022
Develop and disseminate training materials on good practices on STI policies for sustainable development, including technology transfer and innovation support institutions	R	UNECE, ESCAP	2020- 2021
“Train-the-trainers” capacity building courses for local coaches on STI management to ensure sustainability of capacity development activities	N	UNECE, ESCAP	2022
Promotional campaigns for the broad public in the SPECA countries to enhance the awareness on technology and innovation in society and breed a culture of innovation	N		2021
Promotional operations for awareness raising among the broad public on the objectives and activities of the SPECA Innovation Strategy for Sustainable Development	N		2021
<b><i>1.B Actions aimed at strengthening the innovation systems and improving STI governance</i></b>			
Roundtables with policy makers and STI stakeholders to reveal and discuss existing gaps and failures in the national innovation systems	N, R	UNECE, ESCAP	2021
Roundtables with policy makers and STI stakeholders to discuss existing problems in STI governance	R	UNECE	2021
Roundtables with SPECA policy makers and STI stakeholders and international experts on policy measures addressing weaknesses in the innovation systems and aiming to improve STI governance	N, R	UNECE, ESCAP	2021
Development of practical guidelines and hands-on skill-building workshops, for SPECA innovation practitioners and stakeholders on the management of innovation support institutions (incubators, tech parks, tech transfer offices, etc.)	N, R	UNECE, ESCAP	2022
Development of practical guidelines and technical assistance missions by international experts to assist SPECA policy makers and stakeholders in implementing new policy measures addressing weaknesses in the innovation systems and aiming to improve STI governance	N, R		2023

# Proposals for the SPECA Innovation Strategy Action Plan 2

Description of actions	Scope (R = regional; N= national)	UN instru- ments	Timeline
<b>1.C Actions aimed at improving national STI policy making</b>			
Capacity building activities (training seminars and hands-on skill-building workshops) on good practices on policy design and coordination for STI policies for sustainable development	R	UNECE, ESCAP	2021
Training seminars with leading international experts, on selected STI policy instruments addressing key gaps and failures in the innovations systems (early stage financing, systemic failures, etc.)	R	UNECE, ESCAP	2021
Hands-on skill-building workshops for SPECA innovation practitioners and stakeholders on promoting leading edge technologies for SD (industry 4.0, transition to circular economy, etc.)	N	UNECE, ESCAP	2022
Development of practical guidelines and technical assistance missions by international experts to assist SPECA policy makers in designing and implementing programmes for policy evaluation	N		2023
<b>1.D Actions aimed at overcoming the implications of the Covid-19 pandemic</b>			
Knowledge sharing roundtables for SPECA policy makers and international experts on good practices for post Covid-19 recovery and the role of STI	R		2021
Taking stock roundtable for SPECA policy makers on actual experiences in overcoming the implications of the Covid-19 pandemic	R		2023
<b>Part 2. Recommendations on possible actions aimed at boosting innovation for sustainable development in the SPECA countries</b>			
<b>2.A Actions facilitating the cross-border diffusion of innovations for sustainable development</b>			
Consultations on sustainable development challenges of high priority to the SPECA countries and call for trans-border/regional cooperation and approaches	R	UNECE, ESCAP	2021
Identification of obstacles to cross-border cooperation in implementing STI policies for sustainable development and consultations on measures for eliminating or reducing these obstacles	R	UNECE, ESCAP	2021
Cooperation with existing global initiatives such as the UN Technology Facilitation Mechanism, the UN Forum on STI for the SDGs and the Inter-Agency Task Team for STI for SDG	R	UNECE, ESCAP	2021- 2022
Liaison with relevant international donors for mobilising additional expertise and resources in support of innovation for sustainable development undertakings	R		2022- 2023

# Proposals for the SPECA Innovation Strategy Action Plan 3



Description of actions	Scope (R = regional; N= national)	UN instru- ments	Timeline
<b>2.B Actions supporting the transfer of innovative technologies addressing SD challenges</b>			
Policy dialogue on coordinated policy measures supporting international linkages of SPECA countries with global technological value chains, including coordinated strategic approaches to FDI	R	UNECE, ESCAP	2021
Consultations on the establishment a joint regional technology transfer office to support the synergetic transfer of innovative technologies in the region	R	ESCAP	2022
Consultations on possible joint STI projects for sustainable development, where international cooperation can generate regional synergies and economies of scale	R	UNECE, ESCAP	2022
Identification of leading-edge technologies (industry 4.0, transition to circular economy, etc.) of common interest for the SPECA countries and dialogue on measures supporting their transfer	R	UNECE, ESCAP	2022
Dialogue with the broader international community on best practices of technology transfer, including with the UN Technology Facilitation Mechanism.	R	UNECE, ESCAP	2021- 2023
Consultations on the establishment of a joint SD Innovation Fund for early stage support to innovative entrepreneurs in sustainable development undertakings in the SPECA countries	R	UNECE, ESCAP	2022- 2023
<b>2.C Actions aimed at strengthening sub-regional cooperation in STI for sustainable development</b>			
Policy dialogue on innovation policy issues of common interest and priority to the SPECA countries	R		2021
Consultations on the establishment of a dedicated stakeholder network and mechanisms for regular consultations among SPECA countries on innovation policies of common interest	R		2021
Consultations on the establishment of a network of research institutions dealing with STI for sustainable development and a SPECA network of innovation support institutions	R		2022
Consultations on the possibility to set up a joint SPECA competition for innovation projects targeting sustainable development.	R		2021- 2022
Identification of possible joint measures to support regional supply chains based on innovative technologies and innovative organizational methods of production and trade	R		2022
Consultations on the possible launch of a joint regional online support service for innovative entrepreneurs, startups and SMEs (consulting, mentoring, match-making, etc.)	R		2022- 2023



**Thank you!**

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# Prospects for SPECA regional co-operation on innovation for sustainable development

Defining potential areas for co-operation

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# Why regional co-operation on innovation for sustainable development?

<b>Reduce</b>	reduce costs and share risks of innovation activity
<b>Accelerate</b>	accelerate the introduction of innovation in several markets with positive spill overs for several economies
<b>Facilitate</b>	facilitate investment in innovation activities (otherwise too costly and too risky for one country to carry out) and the transfer of knowledge and best practices to address SD common challenges

# Potential areas for co-operation on innovation for sustainable development for SPECA countries

## Strengthening innovation ecosystems and policies

- ▶ Addressing challenges in innovation governance and putting the policy processes right:
  - ▶ Sharing best practices, mutual policy learning
- ▶ Expanding the portfolio of policy mechanisms/tools to support innovation:
  - ▶ Ensuring that innovation support institutions , e.g. incubators, technoparks, are places for experimentation with new ideas, promote entrepreneurship culture;
  - ▶ Making use of such institutions to meet societal challenges and SDGs, e.g. through incubation programmes focused on social entrepreneurship;
  - ▶ Conducting capacity-building on efficient innovation support programmes, e.g. a series of training activities on incubators based on the UNECE Handbook *Incubators to promote innovation for sustainable development in the SPECA sub-region*.

# Potential priority areas for SPECA co-operation (in addition to STI policy)

## **Boosting trade flows among SPECA countries and enhancing SPECA integration in the world economy**

- ▶ Discussions on the available innovation tools to support trade facilitation in the SPECA sub-region and beyond to assist in the implementation of the SPECA Trade Facilitation Strategy (e.g. paperless technologies to accelerate trade operations and border crossing).
- ▶ Capacity building activities on the implementation of the Principles of Sustainable Trade in the SPECA sub-region (2019).

## **Enhancing regional connectivity through transport and digital infrastructure**

- ▶ Systematic engagement of innovative expertise and mechanisms from the SPECA sub-region and from abroad when carrying out trans-border upgrading of physical infrastructure to ensure its durability, safety and effectiveness.
- ▶ Continue enhancing seamless digital connectivity and e-resilience under the 2019-2022 Master Plan of the Asia-Pacific Information Superhighway and through the potential of infrastructure co-deployment (ICT, road transport and energy) projects between several SPECA countries.

# Potential priority areas for SPECA co-operation (in addition to STI policy) continued

## Transitioning to circular economy

- ▶ Identifying solutions for the sub-region's transition to the circular economy with engagement of multiple stakeholders and building on regional and international expertise (ensure knowledge-sharing and idea-generation to elaborate concrete recommendations that could guide SPECA countries in carrying out the circular economy transition).
- ▶ Identifying and addressing regulatory barriers for implementation of the circular economy principles in the SPECA sub-region through a broad stakeholder dialogue involving SPECA governments, civil society, business community, international experts and partners.

## Ensuring the development of sustainable cities in the SPECA sub-region

- ▶ Consultations with stakeholders on regional SPECA experience and innovative practices with regards to building sustainable cities, including engaging expertise from abroad (e.g. implementation of wastewater infrastructure upgrading or solid waste management; provision of e-government services, etc.).
- ▶ Promotion of creative economy as a driver of innovation and youth employment in growing urban settlements, and as a means to tackle social inclusion and economic challenges that cities face (e.g. organisation of roundtables, study trips and capacity building, dedicated incubation training activities based on UNECE Handbook on incubators in SPECA sub-region).