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**Interreg Europe Policy Learning  
Platform - Peer review**

**Košice Self-governing Region**

**2020**

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**Department of regional development, land –use  
planning and environment**



**Interreg  
Europe**



European Union | European Regional Development Fund

## General information about Košice Region

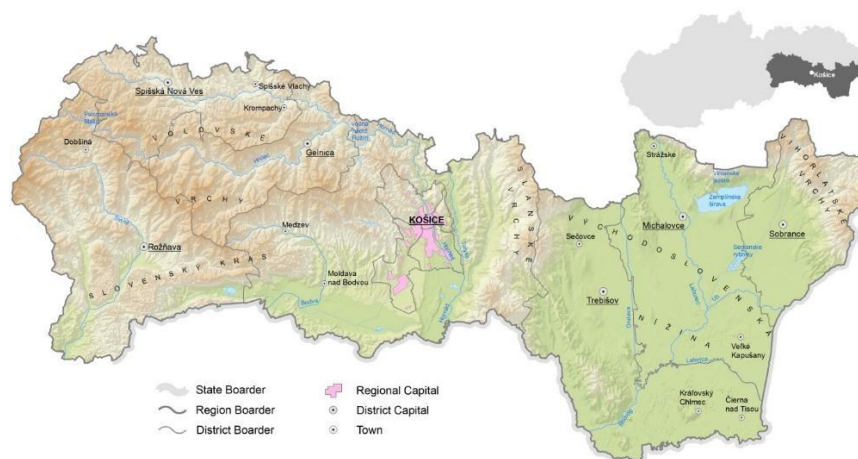
Košice Region is situated in the south-east edge of the Slovak Republic. Its area covers 6,754km<sup>2</sup>, i.e. 14% of the territory of the Slovak Republic. Prešov and Banská Bystrica Regions are in the north and west, Hungary in the south and Ukraine in the east.

Košice Region is administratively divided into 11 districts. Four districts (Košice I, II, III, IV) are in the City of Košice, while the other districts are Gelnica, Košice - Surroundings, Michalovce, Rožňava, Sobrance, Spišská Nová Ves and Trebišov.

Residential structure of the Košice Region is based on 440 municipalities, out of this number 17 are represented by towns (Gelnica, Košice, Moldava nad Bodvou, Medzev, Michalovce, Strážske, Veľké Kapušany, Rožňava, Dobšiná, Sobrance, Spišská Nová Ves, Krompachy, Spišské Vlachy, Trebišov, Čierna nad Tisou, Sečovce, Kráľovský Chlmec). 54.7% of population of the region live in towns, out of it almost one third in the city of Košice.

The regional capital is the city Košice with 238.8 thousand inhabitants (2018), which is the administrative, industrial, business, economic, educational, cultural and historical centre of the East Slovak territory. By its population Košice is the second largest town in Slovakia after the national capital Bratislava.

### Basic data (year 2018)



Indicator	Košice Region	Slovak Republic
Population	800 414	5 450 421
Population density (per sq km)	118,5	111,2
Number of municipalities / towns	440 / 17	2 890 / 140
Urban population (%)	54,7	53,4
Crude rate of natural increase of population (‰)	2,07	0,61
Crude rate of net migration (‰)	-0,58	0,73
Crude rate of total increase of population (‰)	1,50	1,34
Mean age of resident (year)	39,53	40,82
Ageing index (%)	86,13	101,90
Life expectancy at birth – male	73,31	73,71
Life expectancy at birth – female	80,25	80,35
Registered unemployment rate (%)	8,17	5,04
Economically active population (%)	47,56	50,29
Average nominal monthly earning of employee (EUR)	1 100	1 171
Regional gross domestic product per capita (PPS) (2017)	19 009,6	22 860,0

Source: Statistical Office SR

## Demographics

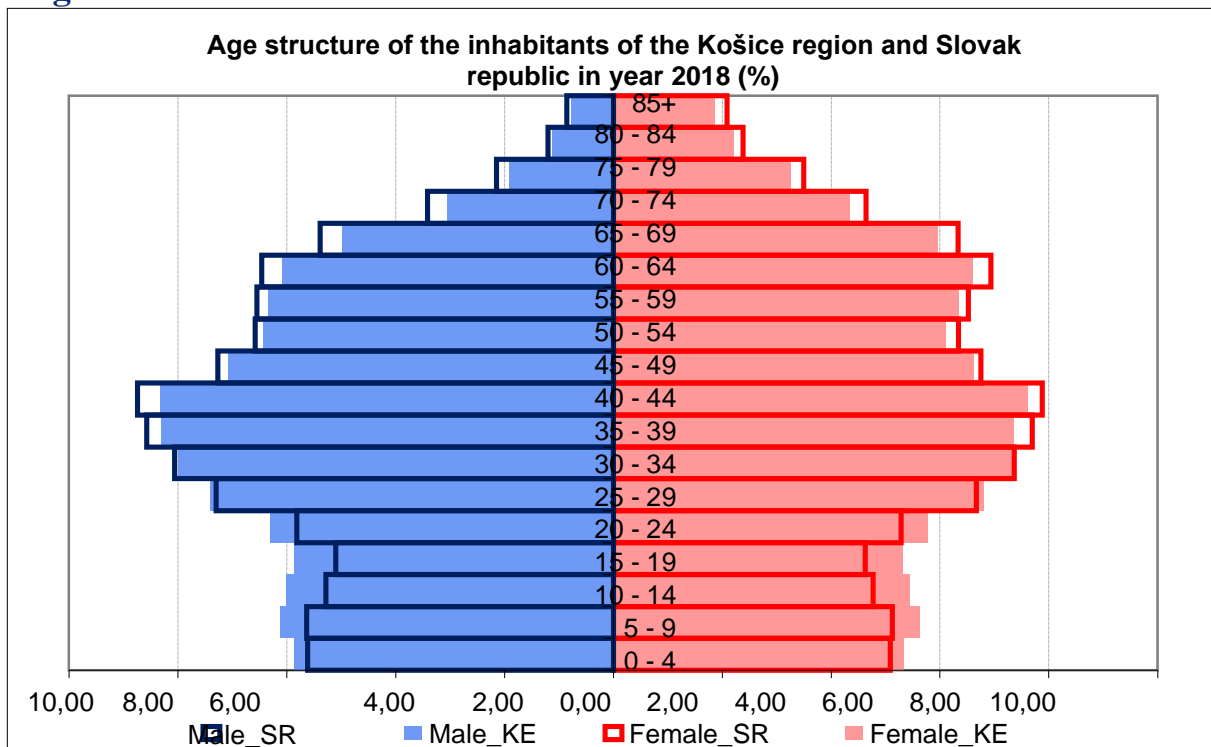
The city of Košice is the capital of eastern Slovakia. It is the political, economic cultural and social centre of eastern Slovakia. As the seat of the regional government and parliament, various district offices and state institutions, including the Constitutional Court, Košice is the focal point for regional governance. It is the second biggest city in Slovak Republic with 239.095 inhabitants. The Košice region, surrounding the city of Košice is the second largest region in the Slovak Republic with 799.217 inhabitants, 14,6 % of the national population. The average density of the population is 118,42 people per km<sup>2</sup>, while the rate is exceeding the average density in Slovakia.

Basic facts about the demographic status of the City of Košice and Košice region are shown in the following tables

Indicator	Košice City	Košice Region
Population	239.095	<b>799.217</b>
Average age	41,83	<b>39,53</b>
Population density	1.172,97 persons/km <sup>2</sup>	<b>118,42 persons/km<sup>2</sup></b>
Share of persons in pre-productive age	14,42 %	<b>17,21 %</b>
Share of persons in productive age	68,28 %	<b>67,97 %</b>
Share of persons in post-productive age	17,3 %	<b>14,82 %</b>
Natural increase rate	181	<b>1.658</b>
Net migration	<b>-519</b>	<b>-461</b>

Source: Datacube

## Age structure

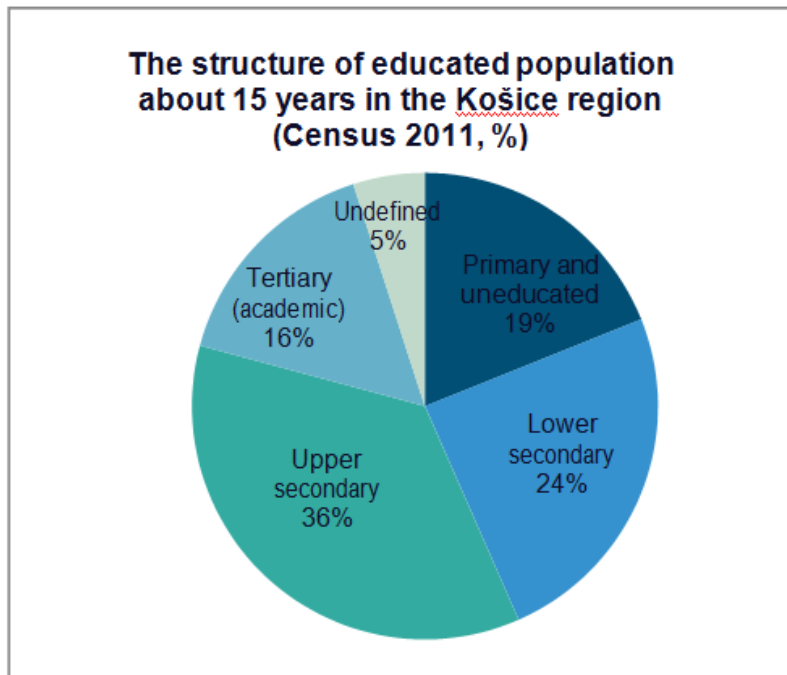


Source: Statistical Office SR

## Education

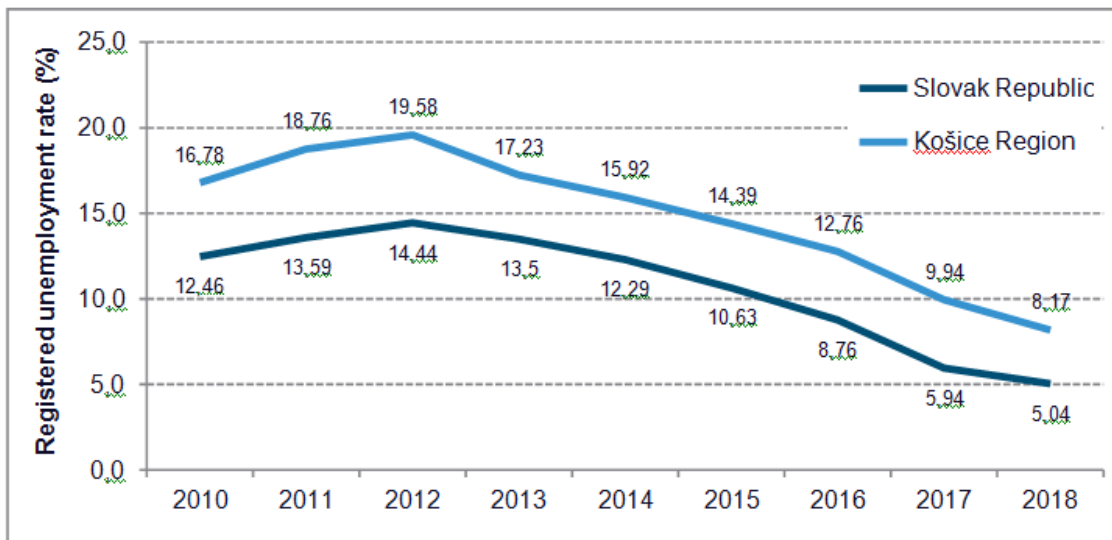
The Košice Region has a favourable educational structure of population. The biggest share includes the economically active population with completed secondary and vocational education. Also the population with the university education has relatively high share.

The educational structure of population reflects to a large extent the territorial structure. The towns have larger portion of population with university and secondary school education and the regional capital Košice has the highest share of inhabitants with higher education



## Unemployment

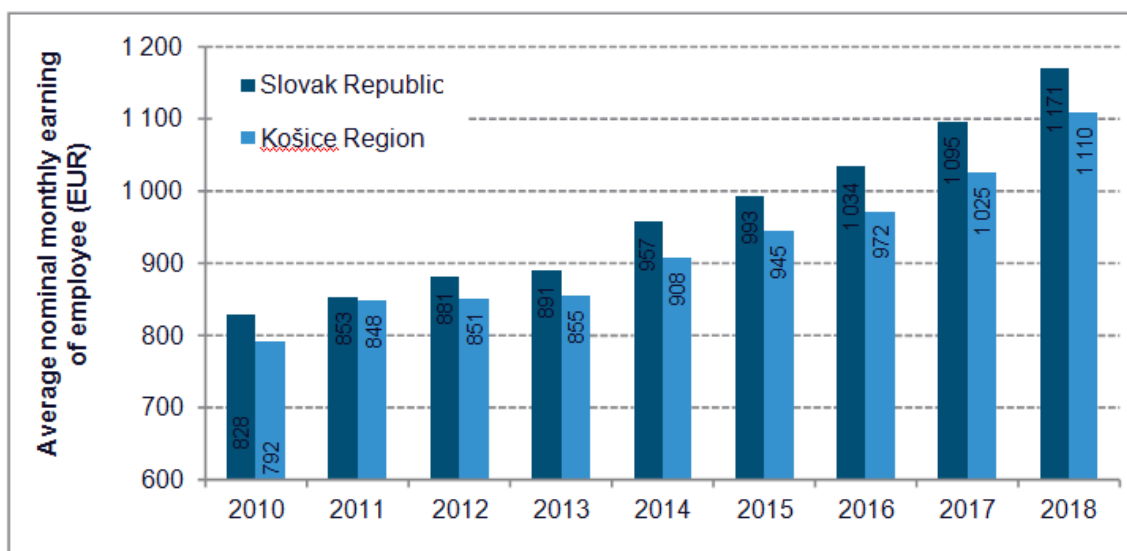
The registered unemployment rate in the Košice region shows a decreasing trend, but it is significantly above the average of the Slovak Republic



## Income

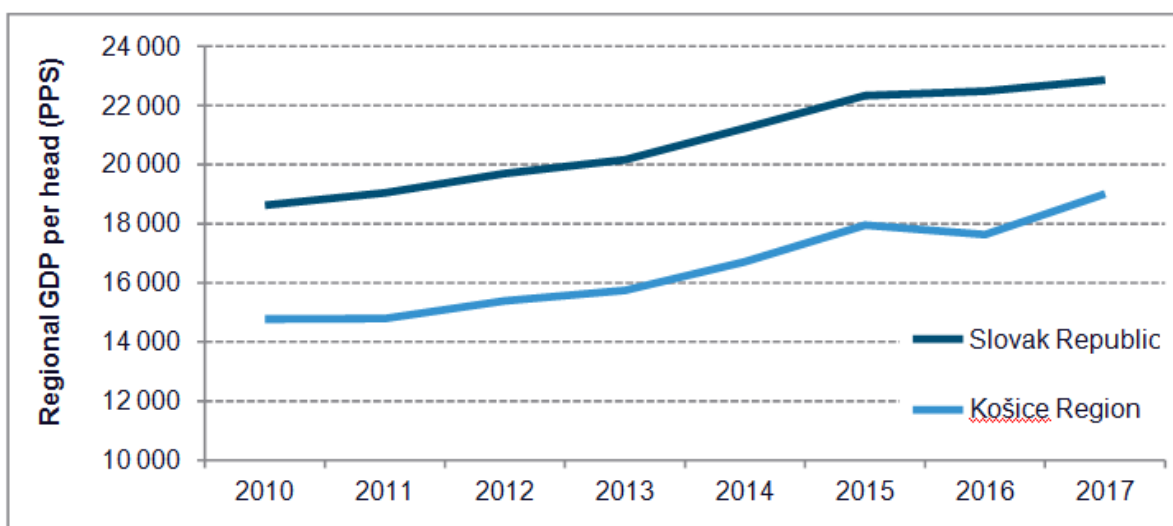
The average nominal monthly wage of an employee in the Košice region is favourable, but it is lower than the average of the Slovak Republic.

As far as the development of the economic base is concerned the city of Košice has a special standing from the point of view of concentration of the economic potential within the region and the amount of monthly wages. This is also due to the fact that the city of Košice is the second largest in the Slovak Republic and represents a significant Slovak national centre of development



## Regional Gross Domestic Product (GDP)

From the point of view of the economic performance the Košice Region is the second most important region of the Slovak Republic. The primary economic centres of the region as far as GDP generation is concerned are Košice, Spišská Nová Ves, Michalovce and the economic potential of their respective areas.



## Economy

The region is one of the leading regions of the Slovak Republic in terms of its share in gross domestic product and the existing economic base. In 2018, the population of the Košice Region produced gross domestic product at current prices of 10.359,88 €. More than 22.000 enterprises and 33.000 entrepreneurs (individuals) are settled in the region. The registered unemployment rate is at 8,17%. The raw material base of the region lies within the area of the Slovak Ore Mountains, which in the past led to the emergence of mining, metallurgy of coloured metals and engineering. These industries, in the dominant position of modern metallurgical plants and chemical enterprises, are a critical component of the regional industrial sector. The main economic sectors are industry (metallurgical, engineering, food, electrical, mining, building materials, fuels and energy), construction and agriculture. The presence of U.S. Steel Košice makes the region the largest steel producer in Central Europe. Significant is also the production of food processing products from primary agricultural production. The city has been going through a significant transformation process over the past years. The path went from heavy industrial orientation towards higher added value industries, innovation and creative economy should bring higher competitiveness and attractiveness to the city. The city has established an IT cluster to support investment in high-tech services - in particular information technology and software solutions. Higher education is concentrated in Košice, where there are 4 universities (University of P. J. Šafárik, Technical University, University of Veterinary Medicine and Private College of Security Management). The total length of the road network in the region is 2.381

km, of which motorways of the 1st class 339 km and roads II class 583 km. Significant is the land port - transshipment in Čierna nad Tisou. There is an airport of international importance in the City of Košice.

Tourism has very favourable conditions for development in all districts of the region. The natural beauty of the Slovak Paradise is unique

<b>Indicator</b>	<b>Košice Region</b>
<b>Regional GDP in current prices (in 2017)</b>	<b>10.359,884 €</b>
<b>Regional GDP per capita in current prices (in 2017)</b>	<b>12.974,263 €</b>
<b>Regional GDP in PPP (in 2017)</b>	<b>15.179,073 PPP</b>
<b>Registered rate of unemployment (in 2018)</b>	<b>8,17 %</b>
<b>Average nominal monthly wage (in 2017)</b>	<b>1.025 €</b>
<b>Number of enterprises (in 2018)</b>	<b>22.242</b>
<b>Number of natural persons – entrepreneurs (in 2018)</b>	<b>33.232</b>

Basic facts about Economy of Košice Region Source: Monitoring Platform of Regional Development (available at: <http://tamp.gis.si/slovakia>), Statistical Office of the Slovak Republic, DATAcube database (available at: <http://datacube.statistics.sk/>)

## Analysis of SMEs

### Analysis of Natural Persons

On 31.3.2020 there were 34301 natural persons - entrepreneurs, persons with freelance profession, self-employed farmers, of which 19126 had 0-49 employees (55.8%), 1 entrepreneur with 100-149 employees, with undetermined number of employees was 15175 (44.2%)

SECTOR	Total number of natural person	Proportion to the total number 34301
Wholesale and retail; repair of motor vehicles and motorcycles	6863	20
civil engineering	6411	18,7
Manufacturing	4953	14,4
Professional, scientific and technical activities	4249	12,4
Other activities	1992	5,8
Agriculture, forestry and fishing	1799	5,2
Financial and insurance activities	1599	4,7
Administrative and support services	1506	4,4
Information and communication	1261	3,7
Transport and storage	1167	3,4
Accommodation and catering services	845	2,5
Education	523	1,5
Health and social work	508	1,5
Arts, entertainment and recreation	365	1,1
Real estate activities	193	0,6
Water supply; sewage treatment and disposal, waste and refuse disposal services	55	0,2
Supply of electricity, gas, steam and cold air	10	0,0
Mining and quarrying	2	0,0
<b>TOTAL</b>	<b>34301</b>	<b>100%</b>

Basic facts about Economy of Košice Region Source: Monitoring Platform of Regional Development (available at: <http://tamp.gis.si/slovakia>), Statistical Office of the Slovak Republic, DATAcube database (available at: <http://datacube.statistics.sk/>)

### SMEs

On 1 March 2020, there were 25931 active enterprises in the Košice Region, of which 14097 has 0-249 employees (54.4%), the number of enterprises with undetermined number of employees was 11778 (45.4%).

SECTOR	TOTAL	Proportion to the total number 25 875
Agriculture, forestry and fishing	1027	4%
Mining and quarrying	24	0%
Manufacturing	2921	11%
Supply of electricity, gas, steam and cold air	58	0%
Water supply; sewage treatment and disposal, waste and refuse disposal services	191	1%
civil engineering	2744	11%
Wholesale and retail; repair of motor vehicles and motorcycles	5782	22%
Transport and storage	1143	4%
Accommodation and catering services	1123	4%
Information and communication	1194	5%
Financial and insurance activities	69	0%
Real estate activities	1274	5%
Professional, scientific and technical activities	3617	14%
Administrative services	2327	9%
Public administration and defense; compulsory social security	1	0%
Education	363	1%
Health and social work	936	4%
Arts, entertainment and recreation	363	1%
Other activities	718	3%
<b>TOTAL</b>	<b>25875</b>	<b>100%</b>

Basic facts about Economy of Košice Region Source: Monitoring Platform of Regional Development (available at: <http://tamp.gis.si/slovakia>), Statistical Office of the Slovak Republic, DATAcube database (available at: <http://datacube.statistics.sk/>)

The TOP 15 employers in the region are described in the table below.

	Name of the company	Sector	SK NACE	Number of employee category	Number of employees	Turnover
1.	U. S. Steel Košice, s.r.o.	Metallurgy	Manufacture of iron and steel [24100]	5000-9999	9960	2 786 968 000,00
2.	T-Systems Slovakia s.r.o.	ICT	Computer related management activities [62030]	3000-3999	3834	153 450 996,00
3.	Embraco Slovakia s.r.o.	Engineering	Manufacture of pumps and compressors [28130]	2000-2999	2318	235 271 000,00
4.	Východoslovenská vodárenská spoločnosť, a.s.	Energy	Collection, treatment and supply of drinking and service water [36001]	2000-2999	2068	91 628 190,00
5.	Yazaki Wiring Technologies Slovakia s.r.o.	Automotive	Manufacture of electrical and electronic equipment for motor vehicles [29310]	1000-1999	1458	52 981 082,00
6.	LABAŠ s.r.o.	Wholesale of food, beverages	Wholesale trade services of food, beverages and tobacco [46390]	1000-1999	1372	256 331 349,00
7.	U-Shin Slovakia s. r. o.	Automotive	Manufacture of other parts and accessories for motor vehicles [29320]	1000-1999	1334	173 525 464,00
8.	Falck Záchranná a.s.	health service	General medical practice activities [86210]	1000-1999	1172	39 675 154,00
9.	Východoslovenská distribučná, a.s.	Energy	Distribution of electricity [35130]	1000-1999	1040	321 225 000,00
10.	Nemocnica Košice-Šaca a.s. 1. súkromná nemocnica	health service	Hospital [86100]	1000-1999	1004	35 895 074,00
11.	Dopravný podnik mesta Košice, akciová spoločnosť	Public transport	Urban or suburban passenger land transport [49310]	500-999	958	15 820 434,00
12.	Essity Slovakia s.r.o.	Manufacture	Manufacture of household, sanitary and toilet articles [17220]	500-999	895	213 123 000,00
13.	Howe Slovensko s.r.o.	Textile	Manufacture of luggage, handbags and the like, saddles and webbing[15120]	500-999	894	22 389 930,00
14.	BSH Drives and Pumps s.r.o.	Elektrotechnics	Manufacture of electric motors, generators and transformers[27110]	500-999	846	185 616 621,00
15.	JOBELSA SLOVENSKO, s.r.o.	Automotive	Manufacture of other parts and accessories for motor vehicles [29320]	500-999	779	57 377 517,00



## DETAIL THE STATE OF PLAY OF ALL POLICIES AND REGULATIONS AND LEGISLATIVE NORMS IN RELATION TO CIRCULAR ECONOMY

The administrative structure of the Slovak Republic is represented by eight self-governing regions, 79 districts (historical territorial units - now only statistical units) and almost 2 900 self-governing municipalities. The legislative powers are connected to three levels:

- a. Parliament (Unicameral National Council of the Slovak Republic with 150 members)
- b. Regional self-governments (Košice Self-governing Region)
- c. Local self-governments

For better understanding of the context of circular economy, chapter was divided into 2 subchapters, representing national and regional programmes related to the circular economy.

### National programs and strategies related with the circular economy

#### 1. Greener Slovakia - Environmental policy strategy of the Slovak Republic up to 2030 (Envirostrategy 2030)

The strategy proposes a basic direction for future environmental policies. Any future legislative measures, implementing rules or future use of public finances should be consistent with the objectives and actions of this strategy. The circular economy is included in the 'Green Economy' area.

The main objective in the circular economy is: By 2030, the recycling rate of municipal waste, including its preparation for re-use, will increase to 60% and by 2035 the landfill rate will be reduced to less than 25%. Slovakia will use green public procurement in at least 70% of the total value of public procurement. This will increase support for eco-innovation, science and research. Food waste disposal will be banned for retail chains. Emphasis will be placed on waste prevention, creating conditions for the priority use of residues and recovered industrial waste in order to limit the use of natural materials, the ecological design of products and the lack of technologies for the treatment of certain types of waste. Stimulating eco-innovation will also increase the share of green public procurement.

#### 2. Vision and Development Strategy of the Slovak Republic until 2030 (Slovakia 2030)

Slovakia 2030 introduces integrated strategic management and planning at all levels of government. The strategy specifically focuses on the level of regions (self-governing regions) as a key level of territorial integration. Slovakia 2030 will represent a basis for the new programming period 2021-2027. The strategy consist of four integrated development programs:

- Protection and development of natural, human and cultural resources;
- An innovative and sustainable economy;
- Quality of life for all;
- Multilevel governance closer to citizens.

Under the Integrated Development Program 2 (Innovative and Sustainable Economy), the objective is to transform the Slovak economy into an innovative green economy by 2030, which will effectively assess education and available resources and be environmentally and socially sustainable and resistant to external and internal adverse impacts. A key change to this end is the transformation of the economy into high added value by linking academia, industry, the public sector and civil society with the development of innovation; exploiting the internal potential of regions and diversifying economic activities; decarbonisation of the economy and its transition to circular economy. In the field of bioeconomy and circular economy, Slovakia 2030 outlines several objectives, eg.

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- Increase organic farming production to at least 13.5% of agricultural land;
  - Cost-effective decarbonisation of energy, industry, agriculture and transport;
  - Increase the share of renewable energy sources to at least 27% of gross domestic electricity consumption;
  - GHG emission reductions of at least 42% in ETS sectors and 30% in non-ETS sectors compared to 2005;
  - Increase waste sorting and recycling rates to 65% and reducing landfill to a maximum of 10% of the total.

### **3. Waste Management Program of the Slovak Republic for 2016 - 2020**

In the Waste Management Program of the Slovak Republic for 2016 - 2020, the concept of circular economy is included in waste recycling. It focuses in particular on reducing landfill of municipal and industrial biodegradable waste. Its strategic objectives are: to significantly reduce the amount of municipal biodegradable waste deposited in landfills and to increase the recovery of waste material and energy.

### **4. National Action Plan for Green Public Procurement in the Slovak Republic 2016-2020"**

The strategic objective of the National Action Plan for Green Public Procurement in the Slovak Republic for the years 2016-2020 is to achieve a 50% share of realized green contracts by public authorities from the total volume of contracts concluded by them for selected product groups.

The use of green public procurement is voluntary, which means that individual Member States of the European Union and public institutions can themselves choose the level of implementation of this instrument. The action plan covers selected product groups that have been identified by the European Commission as priority sectors in terms of scope for environmental improvement, public spending, possible impact on suppliers, creating examples for private consumers and companies, political sensitivity, the existence of significant and easy to use characteristics, market availability and economy. From the mentioned product groups, the SR chose 12 priorities, which became the basis for the action plan.

### **5. Operational Program Environmental Quality – Main tool for Policy Implementation**

The Environment Quality Operational Program is a programming document of the Slovak Republic for the use of EU Structural Funds and the Cohesion Fund in the 2014-2020 programming period in the field of sustainable and efficient use of natural resources, environmental protection, active adaptation to climate change and support of energy efficient and low carbon economy. The strategy of this operational program, i. the choice of thematic objectives and the relevant investment priorities, as well as the definition of specific objectives, results and types of activities, was set out to: (1) support the implementation of the priorities set out in the Europe 2020 Strategy; and (2) Respecting the needs and challenges at national and regional level to be addressed in order to ensure the sustainable and efficient use of natural resources, including energy resources. The strategy also has the potential to contribute to smart growth.

## Regional programmes and strategies related with the circular economy

### 1. The Economic and Social Development Program of Košice Region 2016-2022

The Economic and Social Development Program represents one of the strategic and programming documents of the Slovak Republic at regional level for the use of the European Structural and Investment Funds. It is one of the main tools through which Košice Region ensures its regional development. The PHSR covers 3 priority development areas: Economic; Social; Environment. Each priority area has a strategic objective consisting of several specific objectives. These are implemented through measures and framework activities. The main Strategic objective in Environmental area is defined as *“Strengthening regional identity by protecting the natural heritage and improving the quality of life of the population”*. This objective is implemented by 5 specific objectives:

- Specific objective No 8.1 build technical and social infrastructure
- Specific objective No 8.2 improve the quality of surface and groundwater
- Specific objective No 8.3 improve air quality, including the use of renewable energy sources
- Specific objective No 8.4 increase the volume of material recovery of waste
- Specific objective No 8.5 preservation, protection and enhancement of natural heritage

### 2. Waste Management Program of the Košice Region for 2016-2020 (WMP KR)

WMP KR is a programming document prepared by the District Office (within the competence of the state administration) in Košice, whose provisions apply in the Košice region. Strategic document for waste management of the Košice region, which determines the direction in this area until 2020. The main objective of WMP KR for 2016-2020 is to develop objectives and measures for municipal waste and reserved waste generated in the Košice region, in accordance with the hierarchy a) preparation for their re-use, b) recycling, c) other recovery, d) waste disposal.

### 3. Regional Integrated Territorial Strategy of the Košice Region (RITS)

Regional Integrated Territorial Strategy of the Košice Region is the initial implementation document for the implementation of Integrated Regional Operational Programme (IROP). At the same time, RITS represents a binding action plan of specific planned activities of IROP in the Košice region, defining concrete planned measures with an emphasis on an integrated approach for territory development.

The sources of financing of RITS are mainly the resources of the Structural Funds, including compulsory co-financing from national sources and compulsory co-financing from sources of regional and local government budgets. RIÚS is an implementation tool for the Integrated Regional Operational Program 2014-2020 (hereinafter referred to as IROP), which identifies the most suitable investments in the areas of regional transport, education, health, social services, culture and the environment in the Košice Region. The environmental priority is represented under Priority axis 4 *“Improving the quality of life in regions with an emphasis on the environment”*. The list of concrete project proposals prepared under the Action Plan is enclosed to this document.

### 4. Integrated Regional Operational Programme - Main tool for Policy Implementation

The Integrated Regional Operational Program (IROP) is the programme document of the Slovak Republic for the programming period 2014-2020. Its global objective is to contribute to improving the quality of life and ensuring sustainable delivery of public services sustainable development, economic,

territorial and social cohesion of regions, cities and municipalities. The Managing Authority for IROP is the Ministry of Agriculture and Rural Development of the Slovak Republic. The functions of intermediary bodies for IROP are performed by the Ministry of Health of the SR, the Ministry of Culture of the SR, the Self-governing regions and the regional authorities.

## DESCRIBE THE CIRCULAR ECONOMY POLICY COMPETENCES (NATIONAL, REGIONAL, LOCAL)

Regional self-governments are fully independent from the state administration system. A summary of the distribution of power between the different government levels with regard to legislation, regulation, funding and service provision for key policy fields is provided in the following table.

<b>Government level</b>	<b>Legislation</b>	<b>Main responsibility</b>	<b>Responsibility in field of Circular Economy</b>
Central Government	National council can vote on any matters, ministries and central bodies issue regulations	Electricity, transport, tax system, universities.  Main responsibility in defence, external affairs, internal affairs, justice, universities, science and research	Main responsibility is under Ministry of Environment – issue regulations. Ministry of Environment is also responsible for Operational Programme “Quality of Environment”.
Regional Government	Regional councils may issue general binding regulations within their scope of competencies	Regional development policy, secondary education system, Innovation, regional public transport, regional roads, health-care network.  Main responsibility in social services, secondary education, roads	No direct competencies in field of Environment.  On the other hand regional government is able to create it’s own programmes and action plans, and define lines of further development.
Local Government	Local councils may issue general binding regulations within their scope of competencies	Local development policy, primary education, public transport, local taxes rates.  Main responsibility in social services, primary education, communal services	No direct competencies in field of Environment. Taking responsibility for municipal waste.  On the other hand local government is able to create their own programmes and action plans, and define lines of further development

Unfortunately, the Košice Self-governing Region has very little powers to manage the way of separate waste collection or to influence the use of alternative energy sources. This stems from the content of Act no. 416/2001 Coll. on the transfer of certain competencies from state administration bodies to municipalities and higher territorial units, where the competencies for the area of the environment have not actually passed to the self-governing regions. Only the competences related to land-use planning were transferred, which were subsequently transferred from the competence of the Ministry of the Environment of the Slovak Republic to the competence of the Ministry of Construction and Transport of the Slovak Republic. Act no. 302/2001 Coll. on self-government of higher territorial units, however, defines the competence of self-governing regions and it states that self-governing regions participate in the creation and protection of the environment.

**„The protection of the environment and its preservation for future generation is one of the main goals of the Košice Region. The Košice self-governing region is implementing several measures in order to become a greener public authority and to contribute to improvement of the quality of life of its inhabitants.“**

## **Projects implemented by Košice Self-governing Region and controlled organizations**

### **1. Adaptation strategy for climate change in Košice Self - governing Region**

The aim of the project is to increase the capacity of the Košice Region to adapt to the expected climate change through the elaboration of an adaptation strategy for climate change in the Košice self-governing region

### **2. Better adaptation will protect us**

The overall objective of the project is to improve the awareness of the Košice Region population on the negative impacts of climate change and in particular on how to strengthen the resilience of our settlements through adaptation measures that will reduce their vulnerability while increasing the readiness of the local population

### **3. Landscape recovery programme**

The aim of the Program is to change the approach to the management of forest, agricultural and urban landscapes so that a significant proportion of rainwater can be retained in the landscape and contribute to restoring biodiversity processes, increasing soil fertility, creating water resources and restoring change.

### **4. LIFE-IP SK Air Quality Improvement**

Enhancing the implementation of the Air Quality Management Plans in Slovakia by strengthening capacities and competencies of regional and local authorities and promoting air quality measures. The project will support activities that will be carried out by each entity in the consortium with the aim of improving air quality in Slovakia. The project will create several new jobs - air quality managers, who will assist self-governing bodies (HTUs, cities and municipalities) in the design and implementation of measures to improve air quality. It will also finance, for example, educational activities, environmental awareness building or dissemination of information on tools and means to improve air quality.

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## 5. CITY CIRCLE PROJECT

CITYCIRCLE is improving innovation capacities of peripheral urban centers of Central Europe by introducing the circular economy system to partner cities. The main CITYCIRCLE objective is to utilize innovation potential of circular economy in cities through 1) setting-up quadruple-helix circular economy hubs in partner cities and to 2) equip them with the knowledge and tools so they will be able to design circular economy value-chains in their cities.

The leader of the project is Technical University in Košice. Quadruple helix will be represented by Universities, public administration, NGOs and SMEs. We are in close cooperation. Within the project, the 4 Work packages are planned:

- WP T1 – Circular Economy strategy and hubs
- WP T2 – Knowledge base and capacity building
- WPT3 – Pilot Concept – Within the Košice Region we are focusing on finding solutions in Agriculture. The pilot project will be develop under Košice Self-governing Region involving secondary school.
- WPT4 – Setting up transnational value chains

The web page of the project is: <https://www.interreg-central.eu/Content.Node/CITYCIRCLE.html>

## 6. GO DANUBIO – Danube Transnational Programme

Project is dealing with Circular-Bioeconomy. Circular-Bioeconomy is a concept focusing on the transition of a fossil-resource based economy towards an economy making use of sustainable production of biological resources and processes to develop new products, thus setting rural areas and their development into focus. The concept catalyzes interdisciplinary cooperation also between different policy areas/levels to actively address demographic change, by enhancing value creation through new collaboration, business models and value chains raising the attractiveness to stay and even move to rural areas. Long term goal of the project is to enhance the socio-economic status of the regions, contribute to environmental, climate and resource protection as well as foster development of rural areas.

## PEER REVIEW - CIRCULAR ECONOMY IN KOŠICE REGION

The Košice self-governing Region is currently in the preparation phase of the most important regional strategic documents for the new programming period like: Economic and social development programme of Košice Region, SMART Strategy, Landscape recovery program ect. All these documents have visible overlaps with the new EU programming period. Here the Košice Self-governing Region see the space for open discussion with experts in setting up effective framework, for support the Circular economy principles in our region, which will also allows the rational use of EU funds in programming period 2021 - 2027.

The Košice Self-governing Region operates within the administrative territory of the Košice Region (one of 8 regions / NUTS3/ in the Slovakia). Within its scope, it sets regional policies in the field of secondary education, suburban public transport, healthcare, innovation and others. One of the most important topics is gradually the issue of environmental protection, adaptation to climate change and mitigation of negative impacts.

## WHY PEER REVIEW

The Košice Self-governing Region (as a regional public authority) would like to develop an effective framework for the support of the circular economy in its territory. Partially, we have some experience gained mainly during the implementation of projects dealing with the circular economy. However, the challenge is to frame and comprehensively set rules, tools a finance to support the circular economy. Košice Self-governing Region hopes that thanks to the exchange of experience and knowledges of other experts we will be able to gain knowledge in order to set up an affective framework.

### PARTICIPATING PEERS FROM SLOVAKIA

	Name of participant	Name of the organization		Name of participant	Name of the organization
1.	Tomáš Malatinec	Košický samosprávny kraj	25.	Michal Roháč	Zastúpenie KSK pri EÚ
2.	František Janke	Technická univerzita v Košiciach	26.	Peter Breyl	Vychodoslovenska Energetika, a.s.
3	Jakub Lachky	Schneider Electric	27.	Peter Ťapák	EF TUKE
4	Matej Ovčiarka	VUC KSK	28.	Lenka Kozarova	Kosicky samospravny kraj
5	Natália Vince	Úrad KSK	29.	Veronika Tóth	Technická univerzita v Košiciach
6	Barbora Kováčová	Košický samosprávny kraj	30.	Alena Sičáková	Stavebná fakulta TU v Košiciach
7	Zuzana Vranayová	Stavebná fakulta TUKE	31.	Eva Krídllová Burdová	Ústav environmentálneho inžinierstva
8	Jozef Bľanda	Európske zoskupenie územnej spolupráce Via Carpatia	32.	Štefan Zachariaš	Košický samosprávny kraj
9	Monika Szalay	EZÚS Via Carpatia	33.	Monika Kočiová	SOPK - Košická regionálna komora
10	Viera Uličná Dulinová	Košice Self-Governing Region	34.	Ján Rudy	Košický samosprávny kraj
11	Marcela Jokeľová	Košický samosprávny kraj	35.	Milan Varga	Innovlab, Deutsche Telekom IT Solutions Slovakia
12	Martina Zeleňáková	Technická univerzita v Košiciach	36.	Alica Náročná Gold	Deutsche Telekom IT Solutions Slovakia
13	Lenka Adamova	DT SYSTEM IT SOLUTION SLOVAKIA	37.	Petra Schusterová	Európske zoskupenie územnej spolupráce
14	Urdzik Marko Mgr.	Potravinová banka Slovenska	38.	Zuzana Pajtašová	KOCR
15	Nadežda Številová	Technická univerzita v Košiciach, Stsvebna fskulta	39.	Denisa Rašová	Circular Slovakia
16	Ivana Maleš	INCIEN	40.	Dagmara	City Košice

				Skladaná	
17	Katarína Kuželová	Košický samosprávny kraj	41.	Jana Skokanová	City Košice
18	Petronela Nagyová	Košický samosprávny kraj	42.	Ladislav Rovinský	Ladislav Rovinský
19	Tünde Erényi	Úrad Košického samosprávneho kraja (Infobod KE pre Interreg V-A SKHU)	43.	Michal Kravčík	Ľudia a Voda
20	Tomáš Pavlík	Technická univerzita v Košiciach	44.	Vozarik	KSK
21	Zuzana Šimková	TUKE, Fakulta baníctva, ekológie, riadenia a geotechnológií	45.	Peter Gombita	Oáza - nádej pre nový život, n.o.
22	Ing. Mária Kottferová	Mesto Košice	46.	Jozef Junák	Stavebná fakulta TUKE
23	Henrieta Kiraľvargová	Agentúra na podporu regionálneho rozvoja Košice, n.o.	47.	Ladislav Vozárik	Urobme to ako Baťa, o. z.
24	Lenka Blichová	EGTC Via Carpatia	48.	Juraj Šebo	Technická univerzita v Košiciach

The total number of participants from Slovakia was 48. The host organization put efforts in gathering relevant experts, executive bodies and authorities in order to create objective environment for effective discussion based on experience, expertise and skills. The majority of participants was from Košice Self-governing Region and our controlled organization, representatives from City Košice, SMEs universities and NGO sector. Therefore, good and timely planning, spread of believable information in line with proposal of adequate transition and deplacement measures are crucial stones for the region to cope with the challenge of the transition to clean energy production and coal phasing out.

## POLICY RECOMMENDATIONS

During the 2 day session the next recommendation were made in field of Setting up an effective regional framework for Sustainable Waste Management and the Circular Economy:

Taking stock of the waste you generate - create a working group and make analysis of waste in your organizations  
- Waste characterisation study

- Waste characterisation study (look into your trash bags, sort & weigh, allocate categories and sub categories, take sufficient samples across time to get security on average composition)
- When you know what waste you create, you can identify what types of waste could be reduced.
- Mapping of existing waste treatment facilities including incinerator and their timeframe
- Compare job creation potential of different treatment methods i.e. reuse / recycling vs incineration
- Waste analysis gives you baseline data against which to benchmark future trends
- Use a common approach that is comparable at national and European level
- Slovak Institute of Circular Economy does waste analysis <https://www.incienc.sk/>

Land use plan / Spatial planning (include in update of planning documents)

- What is possible under spatial planning and how to fit waste into the planning of land use cascading down from overall waste planning



- Catalogue of brown field areas and existing areas = development of already urbanised areas rather than transforming green areas
- Advice and guidance notes for specific waste types to accommodate waste collection (including bin locations, curb heights, bin store locations, underground facilities,
- Cover all elements in the spatial planning of waste treatment sites: protected areas, flood areas and water ways / rivers•
- Transport
- Landscape recovery programme
- Create eco park where the waste treatment companies are collaborating and can create synergies to maximise use of resources, for example
- Bio waste can produce energy through biogas that can be used in the eco park
- Waste water facility in proximity of construction waste for example to reuse that water

#### Small steps - quick wins

- Use back casting methodology / planning (Example from Serbia) to align all the municipalities in aspiration, communication, planning and ownership over activities
- Quick training and education / dissemination programmes (Print a Guide to Circular Economy and Waste Management
- Study on future waste management model including of fees that will be applied to customers (companies and citizens) and current situation of financial and waste flows
- street actions / at low budget to have public relations impact (reuse actions for example on WEEE or used textiles, etc. in exchange of a small gift (for example 3kg of
- soil); Street food festivals (to avoid food waste) and compost schemes; Fashion groups; knitting circles; repair cafés, etc.; Movie nights with reusable items
- “Green” events (Good Practice: G’scheit Feiern / Smart Party ) and Guide to eco sustainable events from Contarina

The main questions that have been discussed:

1. **What are good initiatives for controlled organisation to engage in sustainable waste management (reduce reuse recycling)? How to motivate controlled organisations to propose and implement small pilot actions? How to interconnect different types of controlled organisations in order to think more circular and to create their own concepts and projects which will bring concrete results?**

Based on draft action plan you can find possible initiatives where this actions can be tested, further developed :

- Try to find national/international organisations that are involved in this actions/topics for exchange of good practices, you don’t have to develop all by yourself
  - Get involved in partnerships in different EU programs ( Urbact , territorial and European Interreg, ...) to get some funding for implementation of different actions, strategic documents can be product of such projects, also small scale demonstrations
  - Learn how to work together in different partnerships, raise capacity of employees for such development
  - Some actions are low budget and can be done easily
2. **How to identify appropriate stakeholders in the area of circular economy and sustainable waste management (reduce reuse recycling)? How to actively involve them in the process of developing a regional circular economy strategy? How to encourage them to generate concrete results that contribute to environmental protection as well as avoidance and recovery of waste generated whilst bringing regional innovation? How are other regional authorities supporting green projects under their competences (financial and other support; best practices and How to actively involve the scientific community in the process of supporting the circular economy? How to develop research and transfer capacities in this area? How to support education and educate graduates with knowledge and skills to support the circular economy?**

You will need stakeholders to get involved, but key for their involvement is with you :

- To identify them, stakeholders have to know what you are doing , what are your plans in general and how they can fit in work with you
- Create open process where everyone is welcome and you can do selection based on their real possibilities to contribute
- Start small and build network , so stakeholders can bring other stakeholders in step by step
- Some of stakeholders will be able to contribute from the start , some later, all should be involved

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Recommendation in field of involvement of stakeholders:

- First step is to create general objectives so everybody knows what is goal of this process, this should be done by core group that will also lead whole process :
- Create open process so all that are interested in process can get involved and get inputs best way is thru workshops for different groups of stakeholders ( NGOs, Chambers of commerce, public sector, politicians, general public, ...)
- Plan enough time for workshops , start with general objectives, present national/international situation with view to future and why you started this process and let everyone speak
- Plan second round of workshops where results of first round will be presented in draft document/strategy so everyone involved could see what was their contribution this is how you build ownership of document
- If stakeholders feel that they are part of process they will do next steps
- Set goals and timeline to achieve those goals
- With participation from your side in implementation projects you share responsibility for results and build working relations with stakeholders
- Organise public events with them to promote their activities and use those events to get public feedback about stakeholders and their work
- Actively promote results of implementation projects to general public and other stakeholders, get local and regional media involved to report about projects
- Actively promote data in media to get attention of public about trends e.g. data about waste collection per person/year, if one area is really good show this to others

## AFTER PEER REVIEW – FOLLOW UP AND NEXT STEPS

The Košice Self-governing Region is prepared to become a greener. In the further period we are committed to create opportunities and build the effective framework for further development under the topics of circular economy and greener environment. Thank to the amazing discussion with experts we have a bigger picture how we need to implement our vision.

Košice Self-governing is prepared to study all recommendation from peers to examine them and to implement them in next 12 months. The host organization will also analyze all the tools, measures and good practices mentioned by the peers to see to what extend and in what timeline are applicable to the region or if they can be used as an inspiration for further tool development.

Furthermore, the Host would like to stay in touch with the peers to exchange on more concrete topics and ideas gained from peers' work approaches. The District is open for further collaboration in future projects as a project partner or to share experiences on other topics the peers are interested in. In the long term we would like to become a greener region and serve as an example for other regions. For this purpose, the action plan was created.

The action plan of next steps is presented in next page.

	Actions and measures	11.20	12.20	1.21	2.21	3.21	4.21	5.21	6.21	7.21	8.21	9.21	10.21
<b>1.</b>	<b>Set up and effective framework - implementation body</b>												
1.1	Create an internal working group	X											
1.2	Create and working group where relevant stakeholders will be involved		X										
1.3	Create a group of internal experts within the organization - AMBASSADORS		X										
1.4	Joint other initiatives from Slovakia or other countries make contact with them				X	X	X	X	X	X	X	X	X
1.5	Create a workplan and budget and make aktualizations			X	X	X	X	X	X	X	X	X	X
1.6	Develop the topic, have clean vision and make efforts (Share and joint EU initiatives, projects and share responsibilities for results)			X	X	X	X	X	X	X	X	X	X
<b>2.</b>	<b>Action plan for Administration of Košice Self-governing Region</b>												
2.1.	Implement - OFFICE WITHOUT WASTE			X	X	X	X	X	X	X	X	X	X
2.1.1	Create a team of Ambassadors and make them grow			X	X	X	X	X	X	X	X	X	X
2.1.2	Make analysis of waste			X	X	X							
2.1.3	Purchase material and technical equipment							X	X	X			
2.1.4	Start education action for employees of Administration of Kosice Self-governing Region								X	X	X	X	
2.2.	Implement - EVENTS WITHOUT WASTE												
2.2.1	Create a team of Ambassadors and make them grow					X							
2.2.2	Involved relevant experts, who has experiences within this topic						X	X	X	X	X	X	X
2.2.3	Make analysis of waste in core events							X	X	X			
2.2.4	Build a common strategy											X	X
2.2.5	Start education activities of student volunteers											X	X
2.2.6	Make pilot actions											X	X
2.3.	Implement - GREEN PUBLIC PROCUREMENT												
2.3.1	Involved relevant experts, who has experiences within this topic								X				
2.3.2	Make analysis of public procurement									X	X		
2.3.3	Set up an effective framework for public procurement activities within the organization												X
<b>3.</b>	<b>Action plan for controlled organization</b>												
3.1	Create a internal team of ambassadors							X					
3.2	Collect good practices which will serve as inspiration							X	X	X	X		
3.3	Involved relevant experts, who has experiences within this topic							X	X	X	X	X	X
3.4	Make contact with relevant organizations - start the discussion								X	X			
3.5	Make analysis of waste								X				
3.6	Identify first group where the pilot concept will be implemented								X				
3.7	Set up an pilot concept for controlled organizations									X			
3.8	Implement pilot concept in controlled organization											X	X
3.9	Repeat the action in different type of controlled organizations												
<b>4.</b>	<b>Action plan for territory of Košice Region</b>												
4.1	Create and internal working group							X					
4.2	Joint other initiatives from Slovakia or other countries make contact with them							X	X	X	X	X	X
4.3	Make waste characterization study - analysis of waste according to set plan					X							
4.4	Make contact with potential stakeholders - start the discussion					X	X	X	X	X	X	X	X
4.5	Mapp the existing waste treatment facilities					X							
4.6	Make a list of potential stakeholders					X							
4.7	Create open process - discussion, meetings and involvement of relevant stakeholders					X	X	X	X	X	X	X	X
4.8	Based on findings create/make conclusions and set the next steps							X	X				
4.9	Make a plan of next steps - set your priorities, where you will implement the first interventions ( )								X	X	X	X	
4.10	Implement small pilots and create a space for bigger project ideas								X	X	X	X	
4.11	Change regional tools according to the needs of stakeholders											X	X
<b>5.</b>	<b>Publicity and Communication</b>												
5.1	Inform citizens what are you doing and what are your goals							X	X	X	X	X	X
5.2	Share your experiences and achievements							X	X	X	X	X	X
5.3	Create a concept greener region - go viral							X	X	X	X	X	X
5.4	Create a platform, manifest and be the leader within this topic for others					X	X	X	X	X	X	X	X
5.5	Joint other initiatives from Slovakia or other countries make contact with them					X	X	X	X	X	X	X	X
5.6	Educate, share experiences, joint other project and be active within this topic					X	X	X	X	X	X	X	X

## CIRCULAR ECONOMY IN KOŠICE SELF-GOVERNING REGION

After the Peer Review expertise, the Košice Self-governing Region started to implement and complete the development action plan.

### ANALYSIS OF WASTE

In 2018, waste was produced in the Košice Region in the amount of 2,048,433.3 tons, of which hazardous waste accounted for 2.5%. Of the total volume of waste produced in the region, 41.8% was recovered, 36.5% was disposed of and 21.7% was other waste management.

In the Košice Region, municipal waste was produced in 2018 in the amount of 263.2 thousand tons and the region accounted for 11.3% of waste production in Slovakia. Per capita 329.2 kg of waste was produced in the region, which is less than the Slovak average (427.0 kg). From a national perspective, the Košice, Prešov and Banská Bystrica Regions have long been among the regions with the lowest municipal waste generation per capita per year. The amount of waste produced per capita is increasing every year, compared to 2014 it increased by 52.7 kg, i.e. about 19%. Of the total volume of municipal waste in the Košice Region in 2018, 202.8 kg / capita was recovered, which is more than the average for the Slovak Republic (191.7 kg / capita). Of the total volume of municipal waste, 61.6% of waste was recovered in the Košice Region in 2018, which is significantly more than the average for the Slovak Republic (44.9%).

Amount of municipal waste in the Košice Region for 2014 - 2018 (in tons)

District	2014	2015	2016	2017	2018
Gelnica	5 610,0	5 885,9	6 230,1	6 339,3	7 572,6
Košice I - IV	87 404,5	91 482,3	82 878,8	98 297,0	90 255,8
Košice - okolie	28 612,1	28 853,0	27 254,3	30 193,6	31 300,1
Michalovce	25 569,4	25 356,6	26 380,3	32 950,8	36 555,8
Rožňava	19 895,7	17 668,5	18 737,7	23 297,5	22 505,3
Sobrance	3 055,1	2 596,0	2 590,8	2 881,9	3 040,8
Spišská Nová Ves	25 168,1	28 436,6	36 431,3	36 861,8	39 242,6
Trebišov	24 583,5	34 127,3	26 695,9	25 002,2	32 738,2
Košice Region	219 898,4	234 406,2	227 199,1	255 824,0	263 211,2

Source: Statistical Office of the Slovak Republic

During the monitored period, except for 2016, there was a gradual increase in the amount of municipal waste in the region. Most municipal waste was produced in 2018 in the districts of Košice I - IV (34.3% of the total amount of municipal waste in the region), in the district of Spišská Nová Ves (14.9%), Michalovce (13.9%) and Košice - okolie (11.9%). The least amount of municipal waste was produced in the districts of Sobrance (1.2%) and Gelnica (2.9%).

Amount of municipal waste per capita in 2014 - 2018 (kg / capita)

District	2014	2015	2016	2017	2018
Gelnica	178,43	186,51	196,59	199,56	238,51
Košice I - IV	364,55	382,20	346,43	410,87	377,62

Košice - okolie	233,24	233,02	217,65	238,65	244,61
Michalovce	230,74	229,24	238,32	297,79	330,32
Rožňava	316,16	281,59	299,45	373,14	361,41
Sobrance	134,11	113,99	113,91	126,35	133,36
Spišská Nová Ves	255,07	287,41	367,31	370,94	394,26
Trebišov	231,96	322,49	252,39	236,75	310,43
Košice Region	276,58	294,61	285,03	320,42	329,24

Source: Statistical Office of the Slovak Republic

The largest amount of municipal waste per capita was produced in 2018 by the residents of the Spišská Nová Ves district (394.3 kg / capita), the city of Košice (377.6 kg / capita) and the Rožňava district (361.4 kg / capita). The smallest amount of municipal waste per capita was in the districts of Sobrance (133.4 kg / capita), Gelnica (238.5 kg / capita) and Košice - okolie (244.6 kg/ capita).

#### Method of municipal waste management in the Košice Region in 2018 (in tons)

District	waste recovered			Landfilling	Municipal waste together
	Material recovery	Energy recovery from waste incineration	Recovery of organic substance		
Gelnica	599,62	-	1 783,51	5 189,46	7 572,59
Košice I - IV	15 188,94	56 998,29	12 466,45	5 602,15	90 255,83
Košice - okolie	4 702,75	15 916,07	2 265,95	8 415,29	31 300,05
Michalovce	9 375,97	-	4 986,46	22 193,38	36 555,81
Rožňava	3 269,15	-	2 254,69	16 981,46	22 505,30
Sobrance	364,44	-	133,12	2 543,28	3 040,84
Spišská Nová Ves	10 211,33	-	7 523,15	21 508,09	39 242,57
Trebišov	10 587,59	270,53	3 263,96	18 616,09	32 738,16
Košice Region	54 299,77	73 184,89	34 677,30	101 049,21	263 211,17

Source: Statistical Office of the Slovak Republic

In 2018, out of the total amount of 263,211.2 tons of municipal waste, a total of 162,162.0 tons was recovered in the Košice Region, which represents 61.6%.

Within the districts, the largest volume of recovered municipal waste was in the districts of the city of Košice (93.8% of the total amount of municipal waste in the district) and in the district of Košice - okolie (73.1%). The least recovered municipal waste is in the districts of Sobrance (16.4%) and Rožňava (24.5%).

In 2018, most waste was recovered in the districts of the city of Košice (28.0% of the total volume of recovered waste in the Košice Region), Trebišov (19.5%), Spišská Nová Ves (18.8%) and Michalovce (17, 3%). In 2018, municipal waste was recovered by energy incineration in only three districts of the Košice Region, while the highest share was in the districts of the city of Košice (77.9%). With the recovery of organic substances, municipal waste was recovered in 2018 mostly in the districts of the city of Košice (36.0% of the total volume of waste recovered in the Košice region) and in the district of Spišská Nová Ves (21.7%).

Municipal waste disposed of by landfill reached a volume of 101,049.2 tons in 2018, which is 38.4% of the total amount of municipal waste generated.

At the level of districts of the Košice Region in 2018, the highest share of municipal waste disposed of by landfilling was in the districts of Michalovce (22.0% of the total volume of disposed waste in the Košice Region), Spišská Nová Ves (21.3%), Trebišov (18.4%) and Rožňava (16.8%).

At the level of municipalities of the Košice Region, municipal waste was recovered in 2018 in all municipalities of the region, and the recovery of municipal waste by energy incineration was in 69 municipalities of the region (15.7% of the total number of municipalities in the region). The number of municipalities that disposed of municipal waste by landfill reached 416, i.e. 94.6%.

The amount of recovered waste in the Košice Region in 2018 according to individual components is listed in the following table, including the share of recovered components in the total amount of municipal waste.

**Amount of recovered components from municipal waste in 2018**

Ingredients	Quantity (t)	Share (%)
Paper, cardboard	8 995,8	3,4
Glass	6 781,7	2,6
Biodegradable kitchen and restaurant waste	16 299,7	6,2
Clothing, textiles	224,5	0,1
Batteries and accumulators	351,1	0,1
Wood (no hazardous substances)	828,9	0,3
Plastics	4 578,7	1,7
Metals	34 667,6	13,2
Biodegradable waste	16 415,3	6,2

In the Košice Region, 162,162 tons of municipal waste was recovered in 2018 which represents a value of 202.84 kg per capita in the region. The amount of separated components of municipal waste reached the level of 75,460 tons, 94.39 kg per capita. The amount of disposed municipal waste per capita reached the value of 126.40 kg.

In the Košice Region, almost all municipalities are involved in separate collection. Most municipalities separated only the basic components - paper, glass, plastics and metals. Gradually, composite packaging, tires, waste from electrical equipment, car batteries, edible oils, small construction waste and also biodegradable waste from municipal waste began to be collected. The separated waste was collected in colored bags mainly at family houses in villages and towns, but also up to 1100 l containers near apartment buildings, or into three-component large-volume containers and in established collection yards in the towns of Spišská Nová Ves, Spišské Vlachy, Trebišov, Sečovce, Kráľovský Chlmec, Michalovce, Strážske, Rožňava, Dobšiná, Košice, Veľké Kapušany, Smolník and Gelnica. In some larger cities, several collection yards have been set up - e.g. the cities of Košice and Michalovce, Strážske. In towns and villages, certain methods of collecting sorted components of municipal waste are already used.

The region also collects biodegradable waste, the so-called "Green waste", which is composted in municipal composting sites in municipalities e.g. Veľký Folkmár, Smolník, Gelnica. In some cities e.g. in Michalovce, the town placed 1,000 house composters next to family houses. At the same time a new composting plant was approved in the town.

In 2019, there were a total of 17 landfills in the Košice Region, of which 10 landfills for non-hazardous waste, 4 landfills for inert waste, and 3 landfills for hazardous waste. Most of the landfills that are currently in operation have valid permits up to 2035. Their planned capacity should be filled by that time. Landfills for non-hazardous waste and landfills for hazardous waste are currently issued with integrated permits and are supervised by environmental inspectorate inspectors.

The total capacity of landfills in the Košice Region in 2019 was 375,090 m<sup>3</sup>, the free capacity reached the value of 95,795 m<sup>3</sup>. In 2019 total of 10,350 tons of waste was deposited in landfills in the Košice Region.

## OPERATED FACILITIES FOR RECOVERY AND DISPOSAL OF WASTE AND LANDFILLS

In 2019, 86 waste recovery facilities (R) and 21 waste disposal facilities (D) were registered in the Košice Region. An overview of facilities in the districts of the Košice Region is in the following table:

### Facilities for the disposal and recovery of waste in the districts of the Košice Region in 2019

District	Device code	Number of devices
<b>D – Disposal Operations</b>		
Košice I	D1 Deposit into or onto land, e.g. landfill	1
Košice II	D1 Deposit into or onto land, e.g. landfill	3
Košice – okolie	D1 Deposit into or onto land, e.g. landfill	1
Michalovce	D1 Deposit into or onto land, e.g. landfill	2
Michalovce	D1 Deposit into or onto land, e.g. landfill D2 Land treatment, e.g. biodegradation of liquid or sludgy discards in soils D13 Blending or mixing prior to submission to any of the operations numbered D1 to D12 (b) D15 Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced) (c)	2
Michalovce	D2 Land treatment, e.g. biodegradation of liquid or sludgy discards in soils	1
Michalovce	D8 Biological treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12 D9 Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12, e.g. evaporation, drying, calcination	1
Michalovce	D10 Incineration on land	1
Rožňava	D1 Deposit into or onto land, e.g. landfill	2
Sobrance	D1 Deposit into or onto land, e.g. landfill	1
Spišská Nová Ves	D1 Deposit into or onto land, e.g. landfill	1
Spišská Nová Ves	D10 Incineration on land	1
Trebišov	D1 Deposit into or onto land, e.g. landfill	4
<b>R – Recovery Operations</b>		
Gelnica	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3)	1
Košice I	R4 Recycling/reclamation of metals and metal compounds	1
Košice I	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	2
Košice II	R1 Use principally as a fuel or other means to generate energy	1
Košice II	R4 Recycling/reclamation of metals and metal compounds R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	3
Košice II	R5 Recycling/reclamation of other inorganic materials (2) R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	1
Košice II	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3)	3
Košice II	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	2
Košice IV	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1)	2

<b>Košice IV</b>	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	2
<b>Košice IV</b>	R5 Recycling/reclamation of other inorganic materials (2)	1
<b>Košice IV</b>	R5 Recycling/reclamation of other inorganic materials (2) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	2
<b>Košice IV</b>	D9 Physico-chemical treatment resulting in final compounds or mixtures which are discarded by any of the operations numbered D1 to D12, e.g. evaporation, drying, calcination D10 Incineration on land D13 Blending or mixing prior to submission to any of the operations numbered D1 to D12 (b) D14 Repackaging prior to submission to any of the operations numbered D1 to D13 D15 Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced) (c) R10 Land treatment resulting in benefit to agriculture or ecological improvement R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	1
<b>Košice IV</b>	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3)	1
<b>Košice IV</b>	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	7
<b>Košice – okolie</b>	R1 Use principally as a fuel or other means to generate energy	2
<b>Košice – okolie</b>	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1)	2
<b>Košice – okolie</b>	R4 Recycling/reclamation of metals and metal compounds	1
<b>Košice – okolie</b>	R5 Recycling/reclamation of other inorganic materials (2)	4
<b>Michalovce</b>	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1)	1
<b>Michalovce</b>	R4 Recycling/reclamation of metals and metal compounds	1
<b>Michalovce</b>	R5 Recycling/reclamation of other inorganic materials (2)	2
<b>Michalovce</b>	R9 Oil re-refining or other reuses of oil	1
<b>Michalovce</b>	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	10
<b>Michalovce</b>	D2 Land treatment, e.g. biodegradation of liquid or sludgy discards in soils D15 Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced) (c) R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1) R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	2
<b>Rožňava</b>	R5 Recycling/reclamation of other inorganic materials (2)	2
<b>Rožňava</b>	R4 Recycling/reclamation of metals and metal compounds R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	1
<b>Rožňava</b>	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	2
<b>Rožňava</b>	R1 Use principally as a fuel or other means to generate energy R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3)	1



	R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	
<b>Rožňava</b>	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1) R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	2
<b>Sobrance</b>	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1)	1
<b>Sobrance</b>	R10 Land treatment resulting in benefit to agriculture or ecological improvement	1
<b>Spišská Nová Ves</b>	R1 Use principally as a fuel or other means to generate energy R9 Oil re-refining or other reuses of oil	1
<b>Spišská Nová Ves</b>	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	1
<b>Spišská Nová Ves</b>	R4 Recycling/reclamation of metals and metal compounds	4
<b>Spišská Nová Ves</b>	R4 Recycling/reclamation of metals and metal compounds R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3) R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) (4)	1
<b>Spišská Nová Ves</b>	R5 Recycling/reclamation of other inorganic materials (2)	2
<b>Spišská Nová Ves</b>	R9 Oil re-refining or other reuses of oil	1
<b>Spišská Nová Ves</b>	R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 (3)	2
<b>Trebišov</b>	R3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) (1)	4
<b>Trebišov</b>	R4 Recycling/reclamation of metals and metal compounds	1
<b>Trebišov</b>	R5 Recycling/reclamation of other inorganic materials (2)	3

(a) This activity is prohibited by legally binding acts of the European Union and international conventions.

(b) If no other D-code is appropriate, this may include pre-disposal operations, including pre-treatment, as well as, inter alia, sorting, crushing, pressing, pelletising, drying, shredding, conditioning or sorting before any D1 to D12 operation.

(c) § 3 par. 5 of Act no. 79/2015 Coll.

(1) This includes gasification and pyrolysis using components as chemicals.

(2) This also includes soil cleaning, which results in its restoration, and recycling of inorganic building materials.

(3) Unless there is another suitable R-code, this may include pre-recovery operations, including pre-treatment, including, but not limited to, disassembly, sorting, crushing, compression, pelletisation, drying, shredding, conditioning, repackaging, sorting, mixing and mixing before by subjecting any of the activities R1 to R11.

(4) § 3 par. 5 of Act no. 79/2015 Coll.

Source: Ministry of the Environment of the Slovak Republic

## OPPORTUNITIES OF THE CIRCULAR ECONOMY BY SECTOR

Based on the leading sectors in terms of number of enterprises and employment in the *Košice Self-governing Region* area, there are several sector-specific opportunities for the *Košice Self-governing Region* economy to circulate more.

### AGRIFOOD

Agrifood is important for the *Košice Self-governing Region* and *Prešov Self-governing Region* in terms of the number of companies and the food services sector is one of the larger employers. Food and beverages are the sector that usually contributes the most to the generation of commercial waste, and kitchen waste is generally considered to be a significant problem which, if addressed proactively, can bring economic benefits (waste prevention). The key point is that waste prevention usually brings benefits not only in terms of waste management costs, but more importantly, in preventing raw material costs (which are usually about 20 times higher for the sector). The waste hierarchy should be respected, with:

- The priority is to avoid avoidable food waste. There is potential to achieve this goal in the sector, but also through household expansion through innovations such as extended storage and shelf life. There are also opportunities on farms

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to reduce food losses through appropriate storage, pest / disease protection and the involvement of multiple supply chains to reduce waste due to problems such as unsatisfactory specifications and mismatches between supply and demand.

- Reuse/redistribution of food surplus. For example, FareShare Northern Ireland, a charity operating throughout Northern Ireland, redistributes surplus food and calculates a social and economic return on investment of 8 GBP for every 1 GBP invested in its work.
- Any food waste that cannot be prevented or reused / redistributed can be separated for use in anaerobic digestion or composting plants, which generate beneficial products that can be used in food cultivation and thus recirculated to agriculture. Anaerobic digestion has another advantage in energy production.

Other opportunities for the circular economy in the agrifood sector include:

- Leasing models of capital equipment: there is the possibility to adopt leasing models for capital equipment for both kitchens / food preparation and agriculture, which could allow the use of the latest intelligent kitchen technology and more efficient use of resources.
- Sustainable agriculture: In agriculture, there are opportunities to reduce external inputs, especially those imported, such as animal feed, which move towards a closed-loop system and focus on the principles of sustainable intensification, thus increasing outputs while the environment and ecosystem services are protected.
- Shortening agricultural supply chains: As an agricultural area, there is also an opportunity to shorten supply chains and reduce consumer packaging and transport by encouraging residents to buy locals and farmers to sell local products.

## HUMAN HEALTH AND SOCIAL WORK

In the health sector, there is considerable scope for improving waste management, in particular:

- Reduction of food waste that can be prevented in hospitals: currently the largest source of hazardous waste is in healthcare. This could be facilitated by redesigning food supply and disposal services and good communication to avoid unnecessary food preparation.
- Renovation and preparation for reuse: covers all ranges from consumables to equipment. For example, reusable diapers in hospitals can bring significant waste reductions and cost savings, as well as the renovation of large capital facilities. Another good example is the continuation of the collection of unused hospital equipment for re-use.
- Recycling: plastic is a large component of hospital waste, much of it is not hazardous with recycling potential.

Another concept of the circular economy that can be applied in healthcare is the use of procurement models in which consumers pay for the use of equipment and not for the purchase of products in advance. This leads to savings in initial costs, maintenance and post-use treatment. This type of procurement is already taking place in many hospitals, especially in Germany.

## WHOLESALE AND RETAIL

The wholesale and retail sectors can facilitate the transition to a circular economy in several ways:

- Packaging: retailers are in a position to rework packaging to reduce volume advantageously while also reducing costs;
- New business models: for example, take-back systems for the repair and refurbishment of end-of-life products.
- Design: the use of upstream - a pre-emptive effect on the transition to products that are more circular, for example with a longer service life.
- Suppliers: Similar to green public procurement in the public sector, the private sector can only contract with suppliers who meet certain criteria regarding waste reduction and the circular economy.
- Consumption patterns: consideration of price points and promotions that influence more sustainable shopping behavior.

The Fashion and Textile Design Center, established with the support of the *Košice Self-governing* Region, is a way in which the *Košice Self-governing* Region could influence the design of retail products. For example, the center could be tasked with finding innovative ways to reduce waste and move fashion and textiles to the circular economy - a movement with the potential to re-establish the Košice Region's historic textile industry.

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## EDUCATION

As outlined in the policies below, education plays a key role in the transition to a zero-waste circular economy, and educational institutions can be used to disseminate information on the strategy. The education sector also plays an important supporting role in providing a skilled workforce in areas needed for the circular economy, such as refurbishment, refurbishment and product design. According to EU models, our secondary technical and business academies can offer a number of courses with the potential to acquire skills in the circular economy, such as construction and design courses, as well as TUKE -UVP TECHNICOM, where these courses can include creative technology and engineering. Simultaneous provision of opportunities to increase qualifications in the test center TUKE - BERG Associate Professor Spišak may expand in the future based on the volume of material with increasing potential for re-use and the potential to prepare for re-use of higher value-added items, which requires specialist skills and greater financial returns.

## PRODUCTION

If high-quality recycled material is generated at the Košice Region from its municipal waste collection system and from the municipal waste recycling centres, start-ups will have the opportunity to start reprocessing this secondary material. As there are already processors in the Košice and Prešov Region who are likely to provide clear markets for certain materials with a focus on materials that are not currently reprocessed in the SR, they can offer to the Košice Region greatest business opportunities. There are a number of "problem waste streams" that will need to be addressed in the coming years as they move from the use phase to the waste stream. Examples that are worth considering include solar panels, carbon fiber products, new battery technologies, LED lights and other products. None of these flows can be delivered to a large number of reprocessing facilities, as the amount of material available will not be sufficient to justify the types of investments that are likely to be required of the investment requested. As a result, cities with multimodal HUBs will acquire a certain strategic importance and become sites of potential aggregation of waste materials and products that contain valuable materials. Therefore, there are opportunities to identify waste streams, the reworking of which links to other aspects of the economy and where the Košice Region area can become a serious player in Central and Eastern Europe.

There are opportunities for existing manufacturing operations in this area to become more circulating, including by designing products for longer life and shifting towards consumption patterns that are not based on direct ownership (using leasing models). Greater emphasis on reuse design, recyclability and evaluation of space to increase process efficiency and eliminate waste in production are also important activities that can bring benefits at the lower end.

## CONSTRUCTION

The circular economy offers many construction opportunities. The design of new buildings and the choice of materials should be based on circular economy concepts such as durability, dismantling and flexibility, in order to keep buildings and resources in operation for as long as possible. As a procurer of construction services, the Košice Region has the opportunity to influence the practices of the circular economy in construction, especially through the ecological procurement of buildings financed by *Košice Self-governing Region* and *Prešov Self-governing Region*. Košice Region has other options through a planning system to influence ecological design in construction and by leaving the bond to ensure that standards are met in the final construction. There are many practices relevant to both the public and private sectors:

- Selective demolition could lead to increased savings through the take-back and reuse of materials such as wood and structural metal, waste separation and high quality recycling of building elements. This is a particularly important attractive outlook for the Košice and Prešov Region, as they could help strengthen the repair and maintenance industry.
- Use of industrialized production processes, modularization and 3D printing to reduce construction and renovation costs and time.
- Leasing materials for use. This would open up new business opportunities for the provision of leased, recycled materials for new construction work.
- Sharing, multipurpose and reuse buildings.
- In this area, there are opportunities to work with construction companies to help them identify practices, including support under contracts, that promote a less uneconomical approach to construction.

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## SPECIFIC CHALLENGES IN SLOVAKIA AND IN THE KOŠICE REGION

In 2017, the European Commission recommended to Slovakia to focus on improving waste management, especially on increasing recycling, strengthening separate waste collection and other activities that will reduce landfilling. With these intentions, Slovakia approved the Waste Prevention Program for 2019-2025 and the Environmental Policy Strategy until 2030. These documents commit the Ministry of the Environment of the Slovak Republic to the preparation of the legislative environment for:

- application of mandatory fees of households according to the amount of waste produced (PAYT),
- waste collection (door to door),
- support for local backup systems,
- support for the take-back of waste from products,
- support for home and community composting,
- compulsory collection of kitchen waste from households,
- activities for the prevention of food waste,
- building re-use centers and a national waste prevention education program.

And in recent years, the Slovak Republic has been experiencing a legislative storm in order to increase recycling and reduce the amount of landfilled waste. Since January 2019, an amendment to the Act on Fees for Landfilling Waste has been in force and a government regulation has set the rates of fees for landfilling waste, which is based on the level of municipal waste sorting in individual municipalities. At the same time, the fee is increasing year-on-year in order to ensure the motivation of the municipality to increase the level of classification. In November 2019, an amendment to the Waste Act abolished three of the four exemptions for compulsory separate collection of kitchen waste. From 2023, kitchen waste must also be sorted by those municipalities that have used mixed municipal waste for energy, or those to which the introduction of separate collection would cause technical problems (especially in historic city centers and sparsely populated areas). Since 2021, municipal waste must also be sorted by municipalities, which have referred to the economic intolerance of sorting kitchen waste. Only municipalities or parts of municipalities do not have to sort kitchen waste, which proves that 100% of households compost kitchen waste on their own.

To meet the goals of the Slovak Republic in waste management (increasing the rate of recycling of municipal waste and packaging waste, reducing the share of landfills) to present system solutions based on efficiency and transparency (according to INEKO).

- Improve and make more flexible the regulation of the waste management sector; if the current regulation does not comply, propose a more effective one.
- Take measures to maximize the achievement of waste collection and recovery objectives that, based on analyzes, lead most effectively to the result (collection of sorted components, collection of plastic bottles and cans, sorting of biodegradable waste, treatment of kitchen waste).
- Efficient use of capacities for sorting unsorted municipal waste and disposal of non-recyclable waste (incinerators, cement plants); support new capacity building only while respecting objectives in the whole environmental sector, on the basis of transparent processes and taking into account their future effectiveness.
- Support effective sorting and recovery of municipal waste not included in the system of sorted collection by effective tools, motivate municipalities to minimize landfilling of waste.
- Strengthen tools for waste prevention and intensification of waste sorting (e.g. bulk collection - payment for the amount of mixed waste); choose the ones that bring the highest efficiency.
- Streamline and make transparent support and subsidy schemes in waste management (for example from the Environmental Fund, the EU Structural Funds), assess the effectiveness of the use of funds before they are granted and evaluate their real impact after their use.
- Use measures in the system of taxes and fees that will motivate producers to reduce waste production and market products with a low environmental burden.
- When adopting new laws in waste management, take into account the principle of value for money, pay attention to their precision (use modeling before the adoption to avoid the need for frequent forced changes, monitor European legislation more closely) in order to make the legislative environment more stable; apply the same to investments.

- Prevent the creation of illegal landfills by expanding the availability of legal waste collection and applying effective sanctions for breaches of the law; effectively dispose of existing illegal landfills.
- Promote effective measures to raise public awareness of the need for efficient waste management, including waste prevention; with this intention to introduce environmental education into school curricula.
- Actively enter into the creation of the environmental policy of the European Union, presenting solutions respecting the possibilities and needs of the Slovak Republic.
- Promote the efficient allocation of resources from the European Union to contribute to real progress in the circular economy and waste management in the Slovak Republic.

At the same time, the Slovak Republic must pay sufficient attention to the support of innovations for low-carbon, including those belonging to the circular economy. In the current situation, it is necessary to support the development of innovative and new products and services, the transfer of technologies and knowledge into practice, process innovation and the creation of networks for information sharing. To this end, it will be necessary to support:

- quality research, experimental development with a high potential for the transfer of acquired knowledge into society, especially in order to build a competitive business sphere,
- active cooperation between companies, research and development centers, education and public authorities,
- increasing research capacities and innovative absorption capacity within the business sector,
- help domestic companies to participate in international value chains, including innovative ones.

## **KOŠICE SELF-GOVERNING REGION IS GOING CIRCULAR**

The circular economy will require a comprehensive approach, disrupting the existing consumption system and has significant potential to reduce greenhouse gas emissions.

The main obstacles are sometimes high re-use and repair costs, lack of understanding of re-use, lack of cross-sectoral or sectoral purchasing, poor and complex product design, inability to monetize hidden environmental costs of products and lack of long-term thinking.

Key opportunities include public procurement, new business approaches and models, the use of growing environmental awareness to stimulate behavioral change, existing support for education (see Regional Skills Forum below), exciting research (see below) and new ecodesign legislation.

The circular economy will require skills and jobs at all skill levels in rural and urban communities and could help revitalize sectors such as crafts or local production (see Green Alliance presentation below). To support growth in this area, tertiary institutions need to assess all courses for circular economy opportunities, address the current skills mismatch and look at technology, STEM and data as part of the overall picture.

Our common regional role is to take steps to:

- Creating opportunities to share best practices, knowledge and tools;
- Sharing knowledge initiatives and supporting the interconnection of companies in the regions of both countries;
- Coordinating efforts in organizing circular events;
- Support for cross-sectoral but also international cooperation in the topics of the circular economy.
- To create suitable conditions for the creation of innovations in the field of circular economy

From the above, the following specific areas were identified, within which the Košice self-governing region with its partners can ensure the transition to a low-carbon and circular economy in long term period.

1. CHANGE OF PUBLIC OPINION ON THE CIRCULATING AND LOW CARBON ECONOMY, WITH AN EMPHASIS ON ATTITUDES TOWARDS A GLOBAL ACCESS TO THE CIRCULATING ECONOMY AND ITS OPPORTUNITIES

The basic problem of the transition to a circular economy is the low knowledge of the public, including the business community, about the topicality and opportunities associated with the transition to a low-carbon and carbon economy. For this reason, it is appropriate to introduce communication channels and campaigns in order to change society's attitudes in this area - e.g. through the Information and Consultation Point for the circular economy, awareness-raising and networking of supporters and disseminators of ideas and promoters of the principles of the circular economy (from citizens,

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municipalities, the corporate sector, education and research organizations, but also the non-profit sector). It is also necessary to build capacity and share good examples from abroad, and last but not least, to ensure the availability of experts for the establishment of innovative partnerships in the field of low-carbon and circular economy in the region.

Activities to be implemented:

- a) Preparation of the organizational unit providing information point and channel services
- b) Preparation and implementation of the program and channels of educational activities
- c) Preparation and implementation of the capacity building program and channels (trainings)
- d) Preparation and implementation of a program and channels for sharing good examples from abroad
- e) Preparation and launch of an innovation platform and database of domestic experts and R&D workplaces and offices dedicated to the field of waste / low carbon / circular economy

## 2. STRENGTHENING THE ROLE OF THE KOŠICE REGION WITH REGARD TO EFFECTIVE WASTE REDUCTION AND PROMOTION OF CIRCULATION IN PUBLIC ADMINISTRATION ORGANIZATIONS

In order to demonstrate leadership in the circular economy, the functioning of the Košice self-governing region and its established organizations should be reborn into processes leading to the circular economy, which would mean the introduction of waste-free offices, but also the minimization / use of waste in a wide range of processes, construction of roads, bridges, etc. The change is feasible in the form of a change in internal goals, rules and procedures for the Košice Region organization and its subordinate organizations.

Activities to be implemented:

- a) Identification of possibilities and impacts for changes in the functioning of the Košice Region and its established organizations with the aim of introducing circulatory approaches.
- b) Identification of suitable areas for introducing change to the circular economy.
- c) Proposal to change internal objectives, rules and procedures and their implementation.
- d) Promotion of guidelines /recommendations to other public bodies

## 3. CREATION AND DEVELOPMENT OF ECOSYSTEM PREPARED FOR THE UPCOMING CIRCULAR AND LOW CARBON ECONOMY.

In order to accelerate the transition to a low-carbon and circular economy, it is important to implement targeted interventions in the form of technological and process investments in the socio-economic environment. As a result, it is necessary to examine the suitability of various available technological and non-technological innovations based on low-carbon and circular economy in key sectors of the Košice Region in accordance with its strengths and global trends. This requires active communication and a series of meetings with relevant players in the region, at the national level, but also in the international arena (in the absence of expertise). Subsequently, it is necessary in active cooperation with development actors to develop an overview of suitable investment project plans applying the principles of the circular economy to increase the quality of life in the Košice Region, which would represent a list of practical changes financing from structural and other relevant funds.

Activities to be implemented:

- a) Analysis of the nature of the economic environment and the possibility of applying technological and non-technological innovations of the circular economy in key sectors of the Košice Region. Identification of suitable sectors for the transition to a circular economy.
- b) Co-creation process with regional stakeholders to identify the suitable operational plan for ecosystem, the strategic actions to be taken and the list of project proposals (pool of ideas, pilots, scale-up) to increase the quality of life in the Košice Region.
- c) Search for funding (internal/external) for operation of ecosystem, implementation of identified strategic actions and project proposals
- d) Formulation of recommendations for national support schemes and active participation in the creation of schemes for the next programming period in order to support the financing of identified project intentions.

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## HUB AND ECONOMIC SUSTAINABILITY – LONG TERM VISION

As part of the design activities, it is planned to establish an Information and Consultation Point for the circular economy, which would cover several activities - from raising awareness and networking supporters and disseminators of ideas and promoters of circular economy principles, through conducting capacity building programs and sharing good examples from abroad, to support the establishment of innovation partnerships in the field of low-carbon and circular economy in the region.

The existence of a center of the circular economy (so-called Hub) with competencies and resources (financial and human) for the promotion and support of potential projects will greatly facilitate the transformation of society and industry and the use of OE resource potential in Eastern Slovakia. The Center should focus in particular (but not only) on reducing food waste and promoting local healthy food chains to enable the circular economy, direct links with businesses across the bioeconomy sectors, policy makers, third sectors, consumers and other relevant communities and stakeholder parties.

In general, the center should function as an effective regional innovative incentive tool to help seek opportunities and disseminate and exploit the results of applied research and development in the circular economy, better understand and reconfigure the whole raw material, waste and waste flow system and change business practices, supply chains and market business structures.

The Centre's activities will be complemented by a dedicated digital platform to ensure awareness-raising campaigns, dissemination of knowledge, inspiration for actors to adopt good practice and networking between partners to support the emergence of application and innovation partnerships.

Košice Self-governing Region has started to implement first of their long terms goal which are divided into 3 action plans. The main idea of this concept is that we have to start from yourself, change the behaviour within your organization and then you will be able to become a leader for others. The first steps are divided 3 main parts, which are:

### Action plan for Košice Self-governing Region

- Activities contributing to: OFFICE WITHOUT WASTE
- Activities contributing to: EVENTS WITHOUT WASTE
- Activities contributing to: GREEN LINE
- Activities contributing to: GREEN PUBLIC PROCUREMENT
- Activities contributing to: EDUCATION, PROMOTION AND LOBBING
- Other

### Action plan for controlled organizations

- Activities contributing to: ANALYSIS AND DATA COLLECTION
- Activities contributing to: CONCEPT OF SMALL GREEN PILOT ACTIVITIES
- Activities contributing to: EDUCATION, PROMOTION AND LOBBING

### Action plan for territory of Košice Region

- Activities contributing to: EDUCATION, PROMOTION AND LOBBING
- Activities contributing to: CREATION OF STAKEHOLDERS NETWORK
- Activities contributing to: CONCEPT OF POSSIBLE REGIONAL TOOLS TO SUPPORT CIRCULAR ECONOMY

The short summary of each area:

### Action plan for Košice Self-governing Region

#### 1. OFFICE WITHOUT WASTE

The analysis of the waste of Košice Self-governing Region was made. Paper represents the main waste component. Košice Self-governing Region as a public authority didn't recycles, until now. First steps were made, and special waste recycling bins were purchased. The ideology of the office without waste will consists of:



#### 2. EVENTS WITHOUT WASTE

Regional authority is organizing several public events in region with more than 1000 visitors. In these events beverages and foods are sold in plastic cups and plates. Within these events we would like to use a special compostable cups and plates. During the organization of the events we plan to use volunteers in order to explain to the visitors how to properly sort waste. The detail analysis of cost for these events will be made.



### 3. GREEN LINE

Online sub webpage for employees of Public Authority consisting for:

- Hotline: how to recycle and separate waste – each employee can rise a question trough email or phone in order to separate better the waste
- Spread awareness about steps and actions that have been taken
- Education character
- Create a community



### 4. GREEN PUBLIC PROCUREMENT

According to the National Action Plan of Green Public Procurement, each regional and local authority can decide about the type of procurement that will be taken. Košice Self-governing Region purchased several items under the green public procurement procedure, but these were more pilot actions rather than regular ones. Within the strategy we plan:



## 5. EDUCATION, PROMOTION AND LOBBING

Increase awareness about circular economy, activities realized within the prepare strategy. The educational activities will be organized for employees of Košice Self-governing Region, and employees of cleaning service. We plan to cooperate with Institute for circular economy under the concept of educational activities.

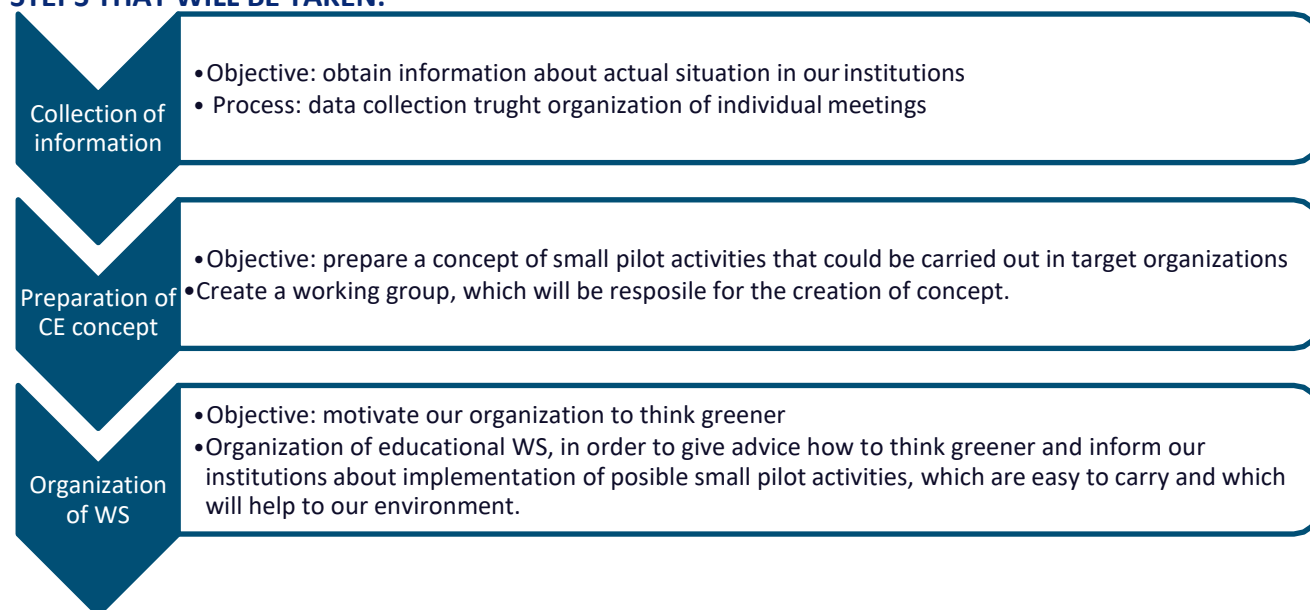
## 6. OTHERS – Open space for new ideas

### Action plan for controlled organizations

Košice self-governing Region is founder of several different organizations within the region. The structure of organizations, represents also the division according to target groups: :

- **CULTURAL SERVICES:** 23 cultural organizations within the region like museums, galleries, libraries, cultural centres.
- **EDUCATIONAL SERVICES:** 70 secondary schools within the region like gymnasiums, secondary vocational schools, secondary technical schools, language schools ect.
- **SOCIAL SERVICES:** 13 social organizations like retirement houses, social service houses, ect
- **OTHER:** 5 institutions responsible for Road services, property services, regional development and tourism.

### STEPS THAT WILL BE TAKEN:



### Action plan for territory of Košice Region

Within this part we plan:

#### 1. DISSEMINATION AND PROMOTION

Increase awareness about circular economy trough better marketing and promotional activities implemented within Košice Self-governing region. Dissemination of our activities to other mayors and institutions within the region in order to get them inspiration.

#### 2. REGIONAL TOOLS TO SUPPORT CIRCULAR ECONOMY

Košice Self-governing Region is now preparing a new donation scheme. Each year, Regional authority allocates part of the funds from budget to support small regional project in form of subsidy. Regional authority starts the open discussion how to support green project from donation scheme of Košice Region.

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## LIST OF STAKEHOLDERS

### Action plan for Košice Self-governing Region

1. Employees of Košice Self-governing Region
2. Cleaning service responsible for cleaning activities
3. Visitors of our Events
4. Companies interested in green public procurement

### Action plan for controlled organizations

1. Controlled organization of Košice Self-governing Region (Social, educational, cultural, others)
2. Other regional and local Authorities interested in this concept
3. Visitors of our institutions

### Action plan for territory

1. Wide public (Citizens of Košice Region, Citizens of other regions in SVK, Citizens from other member and non member EU Countries)
1. Governance (Ministry of Environment of SR, State regional authorities)
1. NGOs, Other organization dealing with CE
2. Private sector
3. Scientific community, Universities ect.