

Regional Background Analysis of GORIŠKA REGION Slovenia

Supporting the development of re-use centres in participating regions





History of the document

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Contents

Contents	3
1. Short description of the project's objectives	4
2. Executive summary of the regional survey.....	6
3. State of the art	10
4. Circular economy stakeholders (participating at different levels in collection, selection, disposal, recycling and re-use activities)	26
5. Collection of data	26
6. Financial aspects	27
7. How to make it successful (Identifying what works, what is successful in your/this operation ..	28
8. SWOT Analysis to identify barriers/opportunities to attract ERDF funding to support re-use centers (Can include consumer behaviour/trends)	29
9. Conclusions	30



1. Short description of the project's objectives

The [SUBTRACT](#) project, an Interreg Europe project that will run from August 2019 to January 2023, focuses on how to increase the economic sustainability and competitiveness of reuse centres, through innovative business models for second-hand goods and through eco-innovative solutions, defining and sharing best practices, detecting and evaluating material flow criteria, taking together social, economic and environmental aspects.



Figure 1: The consortium

The project will strengthen decision makers in their capacity to enact efficient policies of sustaining reuse centres in becoming more sustainable, evaluating key areas such as management, investment, innovation readiness whilst measuring their impact. The elaboration of business principles and models will help actors along the reuse chain (regional and local governments, waste management authorities, NGOs, social enterprises) to collaborate effectively and strengthen networks. Measures will be identified and rendered operational that enforce waste prevention and preparation for re-use activities and favour citizens' contributions. Efficient awareness strategies, campaign models and other suitable measures will be developed and tested to stimulate the supply and demand of reusable goods and render them attractive and desirable.

Reuse Centres are usually run by SMEs, often social enterprises, which receive, prepare reuse and distribute goods that prolong the life of products with important social and environmental impacts, promoting a circular economy vision. They are a powerful vehicle to promote qualitative growth, contribute to the development of human capital and strengthen social cohesion. To achieve this mission, re-use centres must have an economically sustainable business model, a theme that is at the heart of the project. In fact, SUBTRACT focuses on post start-up and scaling-up phases to make re-use centres effective and durable, i.e. to have a constant flow of incoming and outgoing goods well prepared for re-use, professional management, an adequate financial strategy and an attractive image for users.



The project will research knowledge, exchange experiences, develop guidelines on how to develop the full potential of re-use centres and make them competitive and, through action plans, provide guidance to ERDF managing authorities and other policy makers on how to assess and govern re-use centres in their territory. It will strengthen their capacity to implement efficient policies to support re-use centres in becoming self-sufficient, assessing their management, investment and innovation readiness and measuring their impact. The development of principles and business models will help actors along the re-use chain (regional and local governments, waste management authorities, NGOs, social enterprises) to collaborate effectively and strengthen networks. Measures will be identified and made operational to strengthen waste prevention and preparedness for re-use activities and to support citizens' contribution. Effective awareness raising strategies, campaign templates and other appropriate measures will be developed and tested to stimulate supply and demand for reusable goods and make them attractive and desirable.





2. Executive summary of the regional survey

The North Primorska (Goriška) Development Region (hereinafter the Region) lies on the western border of the Republic of Slovenia with Italy. Together with the Gorenjska region in the north, the Coastal-Karst region in the south and the Central Slovenia region in the east, it forms the Cohesion region of Western Slovenia. It covers the area of the Julian Alps, the Soča river basin with Idrijca and Vipava and the Vipava Valley. In the region of the region lies the only national park in Slovenia, the Triglav National Park, which also extends to the Gorenjska region.

In 2019, 117,616 people lived in the region, which is 5.7 percent of Slovenia's population, of whom 59,159 were male and 58,457 were female (SURS, 2019).

The region measures 2,325 km², which represents 11.5 percent of Slovenia's area. The population density in the region was 50.6 inhabitants per square kilometer, which ranks it among the regions with the lowest population density (SURS, 2019).

It is divided into 4 subregions: Upper Posočje, Idrija-Cerkno subregion, Gorizia subregion and Upper Vipava valley and includes 13 municipalities: Ajdovščina, Bovec, Brda, Cerkno, Idrija, Kanal, Kobarid, Miren-Kostanjevica, Nova Gorica, Renče-Vogrsko Šempeter-Vrtojba, Tolmin and Vipava.



Figure 2: Northern Primorska Region (source: NVOplanota.si, 2018)



Some key data (Goriška vs Slovenia):

	NORTHERN PRIMORSKA (GORIŠKA) REGION	SLOVENIJA
Number of inhabitants (1.1. 2019)	117.616	2.080.908
Population density (SURS, 2019)	50,6	102,7
Average monthly gross income (in EUR) (SURS,2018)	1.608,06	1.681,55
Number of enterprises (SURS, 2018)	11.876	200.174
Number of tourists (SURS, 2018)	506.083	5.933.266
Share of inhabitants 0-14 years (%) (SURS, 2019)	14,8	15,1
Share of inhabitants 15-64 years (%) (SURS, 2019) First semester	62,8	65,1
Share of inhabitants <65 years (%) (SURS, 2019) First semester	22,4	19,8
Unemployment rate (%) (SURS, avgust 2019)	5,3	7,4
Gross domestic product in EUR per inhabitant (SURS, 2018)	19.930	22.083
Municipal waste generated in kg/inhabitant (SURS, 2018)	553	495
Share of NATURA sites (ZRVN, 2016) (Slovenija 2018)	1.157,4 km ² 49,8 %	7.681km ² 37,46 %
Wastewater discharged into the public sewage system (1000m³)	/	188.508

We used to think that waste is something we need to get rid of; once we take it out of our house — we no longer care about it. And then we see enormous waste landfills occupying the space that otherwise could be used for recreation, infrastructure, etc. How much would we pay in order to eliminate those landfills, to have a clean lake in the neighbourhood?

On the other hand, if we cared about the waste from the moment of its formation in our household, since it is indeed our property and we shall care about it like about any other of our goods, all those landfills could be avoided: by separating different types of the waste and by recycling it we ensure a decrease in waste landfills, we pay less for our waste management and the waste processing enterprises make profits since waste is also a valuable material that can be sold (for its reuse in different industries: for example, recycled biodegradable waste is a fertilizer in agriculture).

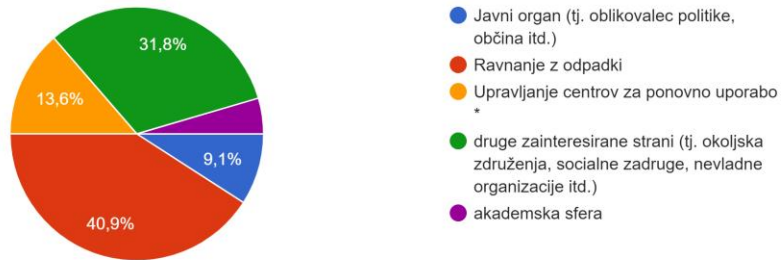
During the first years of independence, the Slovenian waste management system was still in its infancy and was not functioning in accordance with international standards of environmental protection. In 1995, according to a research conducted by Umanotera,¹ separation of municipal waste was non-existent and



approximately 90% of all collected waste was put in landfills, which is the worst possible solution for the environment.

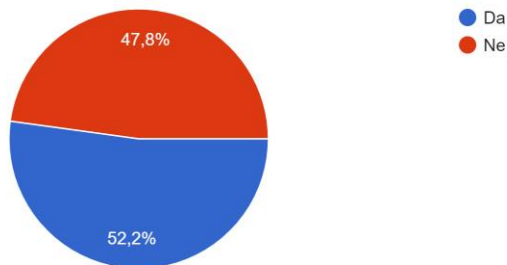
The SUBTRACT questionnaire was submitted to 23 subjects - regional stakeholders from different categories.

Na vprašalnik odgovarjate kot predstavnik:
22 odgovorov



From the answers provided we see that most of the respondents already have picked up or brought objects to a reuse centre.

Ste že kdaj prinesli kaj v center za ponovno uporabo?
23 odgovorov

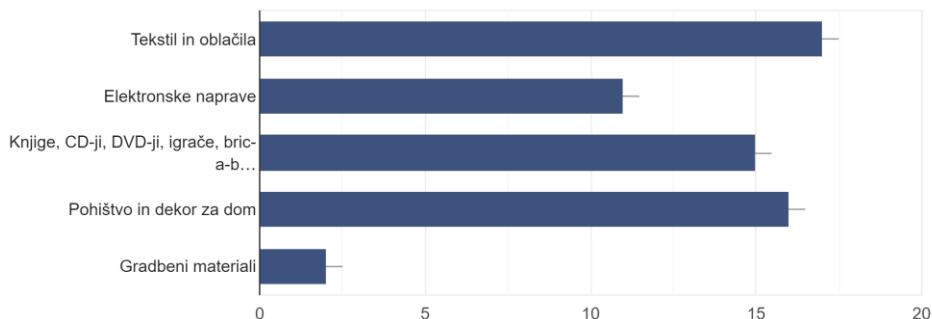


Respondents have/would mostly bring or buy clothes and furniture in a reuse centre.



Kaj ste (ali kaj bi) prinesli ali kupili v centru za ponovno uporabo?

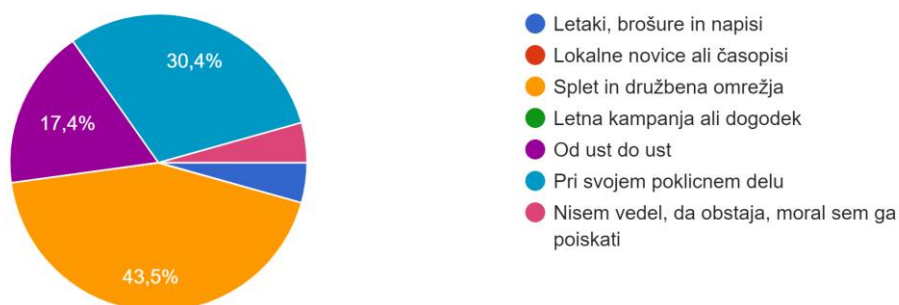
23 odgovorov



Knowledge of the realities related to reuse is limited to word of mouth, which occurs in most cases in the workplace. The interviewees underline in particular the urgent need to structure widespread advertising campaigns also and above all online and through social networks.

Kje ste slišali za centre za ponovno uporabo na vašem območju?

23 odgovorov



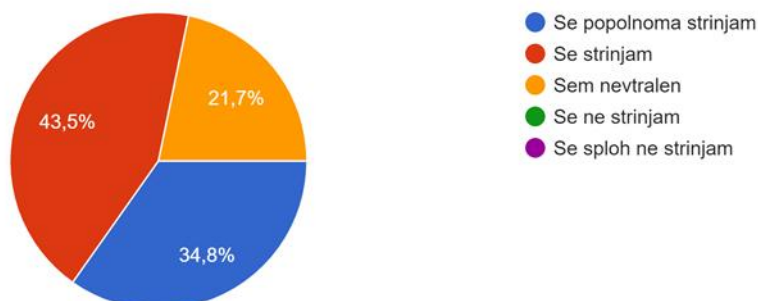
With regard to priorities at national and European level, respondents propose to require publicly funded reuse centres to monitor incoming/outgoing goods and to set quality criteria for the marketing of products in order to prevent them from being sold with a short shelf life. The respondents also believe that the national legislation framework needs to be revised.





Ali menite, da je treba nujno sprejeti kakršno koli spremembo zakoodajnega okvira?

23 odgovorov



On the aspects concerning the economic framework, the questionnaire shows that the management entrusted to associations and or volunteers is not considered economically sustainable, and that a long-term strategy beyond regional funding for the creation of reuse centres is needed. Some criticalities were then highlighted on the imposition of prices or on the gratuitousness of reused goods, inhibiting the economic sustainability of the activities, and on the impossibility of managing significant volumes due to the lack of adequate stockpiles preventing the synchronization between supply and demand. Finally, the proximity to the collection centres is considered a "trick" but instead doubles the costs of interception.

As far as management aspects are concerned, the importance of regional coordination of the centres is noted first of all, but also, as in most cases, both a home collection service and an online platform allowing users to consult the products is absent; both traceability and monitoring systems are backlogged and there is no quality control system in place within the centres.

3. State of the art

a. Geographical coverage of the waste collection service (population, territorial surface...)

With the construction of a new town along the border, there was a need for organized communal activity. Komunala Nova Gorica d.d. was founded in 1950. After a year or so, the City Administration began to pursue public service activities. The City Administration of Residential Buildings was renamed the Nova Gorica Commercial and Municipal Institution. This demarcation created a more specialized utility company with activities that complemented and coordinated in accordance with the growth of the city of Nova Gorica, the development of suburban settlements and rural areas. Among other things, the company also performed road maintenance, construction of municipal facilities, transportation, floriculture, stonemasonry and construction machinery services.



With continued economic growth, the company has taken care of professional education and training and investments in modern equipment. In 1996, the company was transformed into a public limited company.

Komunala Nova Gorica d.d. operates in six municipalities - Nova Gorica, Miren - Kostanjevica, Šempeter - Vrtojba, Renče - Vogrsko, Brda and Kanal. Through the activities they contribute to a better appearance of Nova Gorica, as an administrative center of the region and to the well-being of all citizens. Over the years they have given the new town a special reputation: a clean, tidy, green city with many parks.

- Population concerned: 58.200,
- Area: 604.8km²
- Municipalities: Brda, Kanal ob Soči, Miren-Kostanjevica, Šempeter-Vrtojba, Municipality of Nova Gorica, Renče-Vogrsko

Komunala Nova Gorica d.d. provides waste management services (the main activity of the company), management public and green areas, communal constructions, funeral and florist services.

The activities of public utility services include waste management services, maintenance of public services buildings, public areas and cemeteries. Waste management includes the collection and disposal of waste and the treatment and disposal of waste. Processing and waste disposal are performed by external subcontractors in waste treatment and disposal centers across Slovenia. Komunala Nova Gorica d.d. performs waste collection and disposal itself and appropriate manipulation with waste at the CERO Stara Gora collection center.

Other services provided by the company are of a market nature:

- Funeral services are services of taking over and handing over the deceased, burial and burial,
- Florist and horticultural services of the florist, where we sell flowers and decorative products and making flower arrangements.
- Construction of all types of civil engineering structures, e.g. pipelines, gas pipelines, cable lines, as well as construction arrangement of the surroundings of buildings, construction of courtyards and walls.
- Manufacture of wood and metal products (pergolas and other wood products, hydraulic hoses, office furniture)

In 2018, the population of Slovenia produced on average 495 kg of municipal waste, 17 kg more than in 2017:

- almost 8.4 million tonnes of waste, of which slightly less than 5 million tonnes of construction waste, which is the main reason why the total amount of waste generated in Slovenia increased by almost 36% compared to the previous year.
- 1,025,000 tonnes of municipal waste. This represented 12% of all waste generated this year. In 2018, the population of Slovenia produced on average 495 kg of municipal waste, 17 kg more than in 2017. The amount of municipal waste increased by almost 4% compared to the previous year.



- almost 132,000 tonnes of hazardous waste (or slightly less than in the previous year). They represented just under 2% of all waste generated this year. 75% of hazardous waste was generated in manufacturing activities, 21% in service activities and 4% in households.
- more waste in all activities than in the previous year. 4.7 million tonnes (56%) were generated in services, just over 3.0 million tonnes (36%) and about 638,000 tonnes (8%) in households. The amount of household waste generated was 8% higher than in the previous year.
- the largest amount of construction waste (59%), followed by thermal process waste (13%) and municipal waste (12%), metal and wood processing and woodworking waste (7% in total) and waste from waste management facilities (4 %). Other types of waste accounted for 5% of all waste generated. Compared to the previous year, the amount of construction waste generated increased by almost twice (by 83%).
- most municipal waste in the Obalno-kraška statistical region (575 kg per capita) and the least in the Koroška statistical region (409 kg per capita). More municipal waste was generated in western Slovenia (532 kg per capita) than in eastern Slovenia (462 kg per capita). More information on waste at the level of statistical regions and municipalities can be viewed using the STAGE application (variables: Environment / Waste).

b. Relevant legislation in place/authorization regimes in Slovenia

Waste management in Slovenia comprises collection, transport, recovery or and disposal of waste, including the control of these activities.

Regulations in the area of waste management are mostly based on the Environmental Protection Act. The framework or basic regulation governing waste is the Rules on the Management of Waste. These rules are supplemented by three subsidiary groups of regulations.

The first group comprises regulations governing individual types of waste (e.g. management of waste oils, packaging and packaging waste, batteries) and the second group comprises regulations governing facilities and equipment for waste management (disposal and incineration of waste). The third group consists of regulations on the transboundary shipment of waste.

In the field of waste management, the Environmental Agency of the Republic of Slovenia has the following responsibilities:

- Issuing administrative acts (permits, certificates, authorisations) on the basis of regulations on waste management.
- The Environmental Agency of the Republic of Slovenia prepares forms available on the website in order to help applicants for different permits, certificates and authorisations. The Environmental Agency of the Republic of Slovenia also prepares explanatory notes on certain chapters of the legislation regulating waste management, which are also available on the website.
- Another responsibility of the Environmental Agency of the Republic of Slovenia is issuing decisions on the assessment of tax and exemption from taxes in the field of waste disposal.
- Management of registers On the basis of issued administrative acts and provisions in the legislation regulating waste management, the Environmental Agency of the Republic of



Slovenia keeps different registers, e.g. registers of, persons providing recovery, disposers, collectors, transport operators, dealers and brokers in waste management, and a register of suppliers of batteries and accumulators. The established registers are updated monthly on the website and are published annually in the Official Journal of the Republic of Slovenia.

- Collection and management the data on waste management. Under the legislation in the field of waste management, persons liable are obliged to report annually (by 31 March) on waste management in for the previous calendar year. Forms for reporting are accessible on the website of the agency. On its website, the Environmental Agency of the Republic of Slovenia also publishes data on waste management that were collected on the basis of received reports on waste management.

The structure of waste management legislation is in line with EU law. The general acts are the national Environmental Protection Act (Official Gazette, No. 39/06, 70/08-ZVO-1B), the Decree on Waste Management (Official Gazette, No. 34/08), the Regulation (EC) No. 1013/2006 on shipments of waste and the Decree on the implementation of the Regulation (EC) No. 1013/2006 on shipments of waste (Official Gazette, No. 71/07). Other legislative measures are organised in three clusters:

- legislation concerning different sorts of waste (eg. packaging, batteries and accumulators, waste electrical and electronic equipment);
- legislation on waste management (landfilling, incineration);
- legislation on monitoring emissions from waste treatment.

The most important change was adopting a structured approach, acknowledging that waste management is futile without the prevention of waste production. When dealing with waste, the primary objective is the preparation of waste for their reuse, followed by recycling and other forms of processing, whereas disposal in landfills can only be used as a last resort, where the negative environmental impact or costs of processing would exceed the impact of disposal into landfills. The tasks and obligations of all waste management participants have been further detailed, while the supervisory role of government authorities has been increased through the implementation of an information system for waste management. The Decree of 2015 also prescribed the obligation of the Ministry of the Environment and Spatial Planning to analyse data on waste management and report to the European Commission on the implementation of Directive 2008/98/EC.

c. Type of collection in place (door-to-door vs containers) and existing selective collection (which typology of waste is collected separately)

Slovenia has made good progress on municipal waste management in the past years. In 2017, its municipal waste recycling rates were well above the EU-28 average (58 % vs 46 %) and have increased considerably since 2010. However, regarding the quality of the data, Slovenia reported a significant gap between data on waste generated and data on waste treated. For the latest reported data, the gap is still considerable at 21 %. The wide variation in the last years was due to incomplete coverage of outputs from pretreatment of waste.



d. Disposal methodology (landfill, incineration, export...)

Almost 59% of municipal waste was recycled in Slovenia in 2018.

Waste indicators are part of a comprehensive set of indicators to monitor progress towards the sustainable development goals in the European Union. The values of published indicators show the trends in waste generation and treatment in Slovenia.

In 2018: 1,563 kg per capita of all waste other than mineral wastes (construction and demolition waste, soil and stones, excavation waste, etc.) was generated in Slovenia. This is 10 kg per capita more than in 2017 and 456 kg per capita less than in 2010.

495 kg of municipal waste per capita was generated in Slovenia. This is 17 kg more than in 2017 and 26 kg more than in 2010.

Waste treatment indicators for Slovenia in 2018:

- The recycling rate of all waste treated (excluding major mineral wastes) was almost 88%. This is 4 percentage points higher than in 2017 and 25 percentage points higher than in 2010.
- The recycling rate of municipal waste was almost 59%. This is 1 percentage point higher than in 2017 and 35 percentage points higher than in 2010.
- The landfill rate of all waste treated (excluding major mineral wastes) was about 5%. This is half a percentage point less than in 2017 and 20 percentage points less than in 2010.

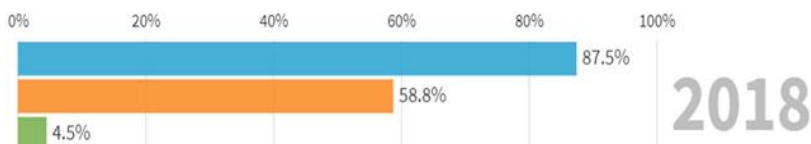
Waste treatment indicators over the years: <https://www.stat.si/StatWeb/en/News/Index/8502>



Some waste indicators, Slovenia, 2010-2018

▶ Replay

- recycling rate of all waste, excluding major mineral wastes (% of total waste treated)
- recycling rate of municipal waste (% of total municipal waste generated)
- landfill rate of waste, excluding major mineral wastes (% of total waste treated)



Source: SURS

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Wednesday, March 18, 2020

A resident of Slovenia uses in the household on average 105 litres of water per day from the public water supply



The Slovenian landfill tax was introduced in 2001, and revenues from the tax were increasingly used to build up recycling infrastructure.

Waste stream, Slovenia

	2017	2018
	In tones	
Waste generated - TOTAL	6.172.263	8.388.420
Imported waste	1.056.651	1.110.408
Recovered waste	5.602.886	7.964.414
...of that recycled	3.209.874	3.595.803
... of which used for backfilling	2.187.962	4.115.408
Waste disposal	390.269	349.399
Exported waste	1.030.664	1.090.345

Source: ARSO, SURS

Note: Recovered and disposed waste covers the quantities of waste treated by final operations.



e. Recycling: container parks/composting plants already in place

In 2002, 8.6% of municipal waste was separated, but the share rose to 64.7% in 2014.

In 2002, some 713,000 tonnes of municipal waste was landfilled, while in 2014 the figure was below 208,000 tonnes.

A modern waste management center in Slovenia that is able to recycle almost all of the rubbish it processes has allowed the small European country to reuse at least one-third of its trash, its directors said.

The RCERO facility, which handles over 170,000 tonnes of garbage each year, manages Ljubljana and its neighboring towns' waste, generated by a population of some 700,000 people.

This means 97-98 percent of the waste from over a third of the small country's population of two million inhabitants is recycled to become aluminum, compost or fuel.

These figures position Ljubljana within a circular economy, based on the idea of converting residual waste into new resources that can be reused.

The Slovenian capital adopted a "zero waste" initiative in 2014 aimed at reducing the amount of waste generated, reusing and recycling the highest proportion of mixed residual waste as possible, according to the plant's director.

Across Slovenia, six different colored containers are used to separate different kinds of waste: organic, mixed waste, packaging, paper, plastic and glass.

Packaging, glass, paper and plastic are taken directly to recycling companies. Mixed residual waste and organic waste are brought to RCERO.

The mixed garbage is prepared for recycling and organic waste made into high-quality compost to be used in urban parks and farming.

It is an automated process, the whole thing directed via a control room with 74 screens to coordinate the arrival and off-loading of trucks, the temperatures inside the reactors, the amount of trash moving along the belts and the separation and crushing up of the different materials.

The center runs on the energy it produces itself, collects rainwater on special roofs, uses filters to eliminate smells and does not pollute the air nor water.

RCERO was built in 2015, partially using European Union funds.

Thanks to its solutions to residual waste management, Ljubljana in 2016 received the European Green Capital award given to cities that can serve as inspiration and models for environmental projects.



f. Re-use: re-use centres and operators in the region

There is one re-use center currently operating in the western Slovenia region, in Izola. In accordance with the philosophy of reducing waste and preserving the life of useful objects, Komunala Izola established the Center for Useful Objects “Old as New” at the Municipality of Izola. The concept of the center is based on promoting the re-use of still useful items and reducing the many times excessive consumption. The new center is located at the Izola Collection Center, where items are accepted, refurbished and offered to the public for free. As reuse also contributes significantly to social inclusion, the communal desire is to emphasize its importance in the long run and also to influence changes in individuals' waste management behavior. They want to direct usable items to the places where the company needs them most, so the free pickup will be available to the citizens of Izola as well as to others. They set up the center in a very short time, at own expense and at minimal cost. In the future, however, the desire is to expand the center's activity to the city center, where the exhibition space would be more accessible to users who do not have the possibility of delivery or delivery. pickup at the collection center.



The Municipality of Nova Gorica in cooperation with neighbouring municipalities and Komunala Nova Gorica has helped to set up a re-use center in Nova Gorica.

The center is called Muca CUPatarica and it was opened in May 2020. It is run by the Association Muca CUPatarica, a social enterprise. The center is a concept of integrated design of alternative solutions that the company has adopted to change the human mindset in the direction of a waste-free society or in order to prevent waste for less resource consumption, more opportunities for creative participation in repair of items at the local level and the possibility of buying things according to the circular economy system.

The center is open to all who want to bring their still useful objects, replace them or in a symbolic or green price to buy refurbished products. The green price is reduced by saving at the expense of the environment, because reuse eliminates the exploitation of raw materials such as water and energy, while reducing the amount of harmful emissions needed to make a new product. So when we do not



throw away the old, we do not waste energy, water, emissions again, and especially we do not pollute nature.

The activities of the center are unlimited. In addition to repairs and refurbishment of usable products, they can also carry out complete refurbishments or refurbishments of products, giving them added value, giving them practical services for households and citizens when repairing, painting, sewing or restoring a variety of products, conducting workshops, raising awareness and education.

The CUP is therefore a concept of integrated design of alternative solutions that society needs to change the lifestyle towards a waste-free society, or in other words, to prevent waste generation for less resource consumption, greater opportunity for creative participation in repairs and production of items at the local level. level and the possibility of buying things according to the circular economy system.

Re-use centres are usually managed by SMEs, in this case a social enterprise. SME's and social enterprises are a powerful vehicle to promote qualitative growth, help develop human capital and strengthen social cohesion, but they need to have economically sustainable business models and that is at the centre of SUBTRACT project, which is also a source of know-how and experiences gained by project partners with far more developed reuse sector.



g. Existing informal sector/Second hand operator

N/A



h. Awareness raising campaigns/material to sensitize citizens waste reduction

Food waste campaign (Ljubljana)

Snaga is an example of a public waste management authority which has embraced the benefit of its customers reducing the waste they produce, and so actively promotes waste-reducing behaviour through a series of consumer-oriented initiatives. One of our socially responsible initiative called "Raise your voice against food waste« and focuses on food waste and problematizes the attitude towards food in an affluent society and excessive consumption.

The aim of the campaign is to change the relation and perception of food so that it will again become an important value and thus reduce food waste. A different approach: the initiative addresses the problem of food waste by giving voice to dustbins.

Snaga wants to change this irreverent attitude towards food into a more respectful one, addressing hearts and minds with a song Kanta Blues played on radio stations, through urban interventions, activities for school children, pre-school children and visitors of our Small reuse playhouse in Municipality Ljubljana, collaborating with media, non-governmental and other organizations (joint activities with Ecologists Without Borders, Institute of Buna, European Parliament Information Office), restaurants, etc.

The main elements of the campaign are dustbins that are present at various events in city districts. With banners such as 'Just because we are on the streets, it doesn't mean we're hungry!', 'We are full of thrown-away food' and 'Raise your voice against food waste', they warn against inappropriate attitudes towards food and call on us to change things. Visitors to the events receive a food storage container with a small encouragement to take what they cannot eat at a restaurant with them, to save leftovers from lunch for the next time and to learn how to store food properly.

Reuse Centre and Repair Café (Ljubljana)

Ljubljana has been part of the global network for promoting repairs, the so-called Repair Café. Repair Café operates within the Reuse Centre at 4 Povšetova Street: every last Thursday of the month different professionals (electrician, seamstress, carpenter) and volunteers are available to help repair and transform products brought by visitors. In addition to a repair workshop, the Reuse Centre also has a shop. In the four year since its establishment, the number of products sold by the centre increased from an average 50 to an average 190 a day.

i. Public Procurement policy promoting circular economy/re-use

The purchasing power of public procurement amounts to around EUR 1.8 trillion in the EU (approximately 14% of GDP). A substantial proportion of this money goes to sectors with a high environmental impact such as construction or transport. Therefore, green public procurement (GPP) can help to significantly lower the negative impact of public spending on the environment and can help support sustainable innovative businesses.

Slovenia was one of the first EU countries to make GPP mandatory. The national GPP action plan's target was that 50 % of awarded contracts should incorporate green public procurement by 2012. Eight



product categories are included in the GPP target: paper, electricity, office equipment, furniture, transport, food and catering, construction, cleaning products and services.

A European Parliament study shows that Slovenia's previous national GPP action plan was partly implemented. However, Slovenia currently has no national GPP action plan in place, as the 2009 plan is no longer valid.

In January 2018, a new GPP decree came into force as part of the framework programme for the transition to a green economy. This decree extended the number of product and service categories for which GPP is mandatory to 20 (adding for example, road building, street lighting and textiles). It defined objectives for each product or service (for example 15 % of food should be organic, 50 % of office paper and hygienic paper products should come from sustainably managed forests and at least 50 % of electricity should come from renewable sources or high-efficiency cogeneration). However, the decree does not include any sanctions for non-compliance.

Slovenia stands out as one of the few Member States with mandatory GPP requirements. However, the actual uptake of GPP could be further improved.

j. Education programmes (involving schools/universities) potential interest explored?

- **Green Backpack (Slovenia)**

Green Backpack is an environmental program designed for preschool children (kindergartens), which has been under the auspices of Mestna ZPM Ljubljana since 1991. Educators and educators integrate the Green Backpack program voluntarily and very successfully into their curriculum and because of their inexhaustible engagement, the program can breathe and live your full life.

Aims of the Green Backpack Program:

1. Informing preschool children about the threats to nature and the environment and about climate change;
2. Encouraging preschool children to have a positive attitude towards nature and the environment;
3. Developing a child's sensitivity to human intervention in the environment;
4. Encouraging children to find solutions to environmental problems;
5. Strengthening relationships;
6. Enriching the vocabulary of children;
7. Promoting children's creativity and creativity;
8. Promoting children's play;
9. By presenting the project to influence parents and other adults to take a more responsible approach to activities that lead to environmental destruction and climate change.



The Green Backpack, the Dragon Jurček doll, as well as the Green Backpack anthem, which are trademarks of the project, help the children achieve their goals in a friendly way.

In 2019 the SUSTAINABLE DEVELOPMENT OBJECTIVES were included in the Green Backpack project.

By incorporating the Sustainable Development Goals into the Green Backpack program, the learning content became even more important, giving children the opportunity to put their knowledge and skills into practice, and to develop a passion for responsible action in society, and ultimately to contribute to their development of competences for sustainable citizens.



- **E-cikliraj** (Collection of waste batteries in central Slovenia)

A large awareness-raising campaign and prize contest for collecting waste portable batteries and accumulators called "Bring old batteries" took place in Ljubljana from October 1st-20th 2019. Within the campaign, collecting of old batteries from 38 registered primary schools in Ljubljana took place, schools competed for a grand prize, which is concert of musician Zlatko at their school. Zlatko is an ambassador for the Life e-waste management project and a popular musician among youths in Slovenia. Campaign also includes school staff, parents, relatives, friends and colleagues.

Concerts will be won by the school that will collect the most waste batteries, the school that will collect the most waste batteries per pupil and the school that organizers believe will make the most of their efforts to disseminate campaign information through its channels. Campaign coordinators at each school will also be rewarded. The campaign can also be attended by all individuals, who can contribute their old batteries and shall be rewarded for their efforts. With several collection points, available for the disposal of waste batteries (technical stores and waste collection centres), the campaign is not limited only to schools. If participants bring at least 10 waste batteries, they receive a small present and can participate in a prize draw for several small domestic appliances. Individuals can also donate their old batteries to the participating elementary school of their selection, helping them win. A special outreach event will be held at the Congress Square in Ljubljana on Monday, October 14th, the 2nd International E-waste Day. The mayor of Ljubljana, an honorary ambassador of campaign will address the crowd, other contributing ambassadors of the project, Zlatko, Tesky and Mojca Mavec, all famous media personalities, will symbolically dispose of their waste batteries into the collector. Promotional activities at the event include: collection of waste batteries, tour of the E-Transformer (a special awareness



vehicle), fun-educational E-cycle activities, cooking by MasterChef's contestant Tesky, experimenting with the House of Experiments. Local elementary schools are invited.

Purpose of the project:

- Raising the awareness of target groups about the importance of correct e-waste and waste battery management and instigating changes in their behaviour,
- establishing an infrastructure network throughout Slovenia to simplify and facilitate separate collection of e-waste and waste batteries.

Objectives:

- Set up at least 400 street containers for collecting e-waste and waste batteries at waste bin areas,
- Set up 45 green corners for collecting e-waste and waste batteries at shopping malls throughout Slovenia,
- Make and use a mobile collector for collecting and separating e-waste and waste batteries in rural areas in all Slovenian regions,
- Organise various awareness raising events at all of the above locations,
- Carry out a competition in the field of waste batteries,
- Organise two conferences for systematic solving of collecting e-waste and waste batteries, meeting events for public utility companies and workshops for dealers,
- Carry out an intensive communication campaign, which will also include various social media,
- Collect 65% of e-waste put on the market (in line with the 2012/19/ES directive) by 2020,
- Collect 45% of waste batteries put on the market (in line with the 2006/66/ES directive) collecting e-waste and waste batteries.





k. Existing projects/initiatives -promoting circular economy/waste reduction or to incentivize positive behaviours at both municipal and household level (success factor)

Ljubljana, the capital of Slovenia, proves that high recycling targets are not only feasible, they also save money and create jobs. It is the first capital in Europe to declare the Zero Waste goal and today separately collects and recycles 61% of its municipal waste. By 2025, that number will be at least 75%.

What's most impressive is the transition of Ljubljana towards zero waste. Before Slovenia joined the European Union in 2004, it didn't even have a proper separated waste collection in place! Since their transition was so noticeable, Zero Waste Europe (ZWE) did a case study on the city.

Voka Snaga is the public company managing waste in Ljubljana and in 9 suburban municipalities serving around 380.000 residents. On average, they have reached levels of source separation of 61% whilst generating only 121kg of non-recyclable waste per inhabitant and year. To compare, the EU average level of source separation is 42% and a 285kg per inhabitant and year of residual waste.

In under ten years, the country has become a frontrunner and is now 20% above the EU's recycling rate and 10 points above the EU's 2020 targets. On top of that, Ljubljana is committed to halving the amount of residuals and increasing separate collection to 78% by 2025.

Voka Snaga waste department runs its own packaging-free vending machines for household basics. People can fill up soap from them, for example, in a reusable bottle they bring themselves.



The streets are cleaned with collected rainwater and biodegradable detergent.



Unwanted items can be dropped off at a reuse center where they are sorted, cleaned and sold.



There are containers for paper, packaging, glass, residual and biodegradable waste throughout the city. In the historical city center, where space is scarce, Voka Snaga installed 67 units of containers underground; the bins open with a card issued to residents.



Ljubljana is proof that avoiding incineration is doable. The country has also proven that going towards zero waste in a very short time is completely feasible. They have made this great achievement possible through a system of door-to-door separate collection. That has made all the difference.

Normally, such a system has only been used in small villages. However, Ljubljana shows us all that effective door-to-door separate collection don't only fall in the realm of small villages, but also work in large cities. In doing so, Ljubljana has managed to become the best performing EU capital, keeping one of the lowest waste management costs in Europe.

I. Main challenges experienced (overcoming obstacles)

The Circular Economy Action Plan emphasises the need to move towards a life-cycle-driven 'circular' economy, reusing resources as much as possible and bringing residual waste close to zero. This can be facilitated by developing and providing access to innovative financial instruments and funding for eco-innovation. Following the adoption of the Circular Economy Action Plan in 2015 and the setting up of a related stakeholder platform in 2017, the European Commission adopted a new package of deliverables in January 2018¹.

This included additional initiatives such as: an EU strategy for plastics; a Communication on how to address the interplay between chemical, product and waste legislation; a report on critical raw materials; and a framework to monitor progress towards a circular economy.

The circular economy monitoring framework tracks key trends and patterns to understand how the various elements of the circular economy are developing and whether sufficient action has been taken. Among other key indicators, the circular (secondary) use of material in Slovenia was 8.5 % in 2016 (EU-28 average 11.7 %) — a decrease compared with previous years. On the other hand, Slovenia performs



above the EU-28 average on the number of people employed in the circular economy (2.09 % of total employment in 2016 vs the EU-28 average of 1.73 %).

The 2018 'roadmap towards the circular economy in Slovenia' sets the path for Slovenia to become one of the region's leaders in the circular economy. The roadmap identifies four priority sectors, gives recommendations to the government and identifies best practices. The roadmap introduces the 'circular triangle' model which unites three inseparable elements: circular economy (business models); circular change (government policies); and circular culture (citizens). The roadmap aims to involve stakeholders in identifying and connecting practices that are compatible with the circular economy and in producing recommendations for the government to help the transition.

4. Circular economy stakeholders (participating at different levels in collection, selection, disposal, recycling and re-use activities)

- a. Public (Regional and municipal level)
 1. Municipalities
 2. Local communities
- b. Private (waste management firms, industry, etc.)
 1. Komunala Nova Gorica d.d.
 2. Dinos d.o.o.
 3. Surovina družba za predelavo odpadkov d.o.o., poslovna enota Nova Gorica
 4. Salonit Anhovo d.d.
- c. Non-profit/social enterprises
 1. Association Čist svet, moj planet
 2. Ekologi brez meja
 3. Center ponovne uporabe

5. Collection of data

- a. Quantities collected (household waste generated)
 - Annual amount of all 6 municipalities – municipal waste: approx. 22,000 tons
- b. Data on selective collection by streams (textiles, paper, plastic, bulky, organic etc.)
 - Separate collection of paper, plastic and metal packaging, glass packaging, biodegradable waste (partially placed containers for separate collection of clothing, electrical and electronic equipment, edible oils).



- In addition, other fractions of municipal waste are collected at collection centers in accordance with the Decree on the obligatory municipal public utility service of municipal waste collection.
- c. Quantity of waste sent for landfill/incineration/recycling
 - Some 35% of mixed municipal waste is sent for disposal after processing (approx. 4,000 tons) / energy recovery approx. 65% of mixed municipal waste.
- d. Number of jobs in waste management activities
 - 58 employees in the waste management unit (without director and joint services)
- e. Figures concerning re-use (impact and how often this is measured)
 - No data

6. Financial aspects

- a. Cost of the household waste collection service: trends
 - Trends are increasing due to rising energy processing prices and, depending on energy prices, labor costs). The price of waste sorting is currently not cost-effective.
 - Due to the set environmental targets, price trends are increasing partly due to the insufficiency of recovery and energy recovery centers and partly due to the oversaturation of the market with waste materials. The countries receiving waste have closed their borders and the MS, especially Slovenia, is in a rather bad position due to the delivery of waste to those facilities that it does not have at its disposal. The government should provide a waste incinerator, which still does not exist. In addition, there are problems with the implementation of the Regulation on packaging waste, candles, refrigerators, for example.
- b. Cost of processing, disposal, incineration: trends
 - Trends are increasing for the abovementioned reasons.
- c. Fee applied to households for the service (flat fee vs pay-as-you-throw)
 - The flat rate per capita is currently € 5.04 / month without VAT
 - Flat rate according to the total amount of waste collected that is subject to the GHS. This is precisely defined by the Regulation on the methodology for determining the price of the provision of the public utility service for waste management
- d. Other sources of funding (public and/or private)
 - Komunala is also engaged in the market activity of collecting some other non-municipal waste or services, which represent an additional source of financing, or in the market part of municipal waste, when selling certain fractions of municipal waste it represents a lower cost at the final price of GJS.
- e. Income generated by selective collection schemes (selling of recycled materials ie paper, plastics, compost)



- Sales prices of some fractions fluctuate on a monthly or even weekly basis. The sale of municipal waste (paper, metals, edible oil) reduces the cost of processing other waste for which recovery / disposal is paid. Additional waste reading services or baling and loading is charged to the acquiring companies.
- f. Support to re-use centres (direct or indirect)
- Indirect - through the supply of waste and eventual transport, education, awareness raising, promotion etc.

7. How to make it successful (Identifying what works, what is successful in your/this operation)

- a. Local/Regional/National support to job creation
N/A
- b. Local/Regional/National support to specific initiatives/projects (i.e seed funding)
N/A
- c. Compelling regulations aimed at promoting re-use
- Decree on the obligatory municipal public utility service for the collection of municipal waste Official Gazette of the Republic of Slovenia 33-1836/2017
 - Decree on waste, Official Gazette of the RS 37-1513/2015
- d. Support to the environmental results (contribution to maximize the volume of reused items sold)
N/A
- e. Promotion of B2B initiatives to increase volumes
N/A
- f. Supply of space for free
N/A





8. SWOT Analysis to identify barriers/opportunities to attract ERDF funding to support re-use centers (Can include consumer behaviour/trends)

- a. **Strengths**-Consider what unique selling point- what social value and cohesion have you identified? What internal resources do you have such as staff, skills or tangible assets.
 - Implementing of comprehensive solutions in the field of environmental protection
 - Good knowledge and management of the waste management process
 - Many years of tradition and experience in all areas of operation
 - Size and financial stability of the company
 - Mutual complementarity and assistance between units in the provision of services
 - Acquired ISO 14001 and 9000 certificates
 - "priority" in public tender procedures

- b. **Weaknesses**-What is lacking, what do other competitors demonstrate, what are resource/capacity limitations?
 - OS for performing activities is worn out and consequently high OS maintenance costs
 - Older staff structure
 - Lack of certain professional staff
 - Inability to carry out certain construction works due to poor or no equipment (eg. in the field of asphaltting).

- c. **Opportunities**- What campaigns have you identified to stimulate supply and demand, how to improve the image, what markets are opening up?
 - Increasing the share of services for the market in comparison with the value of works performed under the concession contract, especially in the field of area maintenance (replacement of revenue - Šempeter - Vrtojba)
 - Strategic integration with partners in the expansion of activities to CERO
 - Expansion of operations mainly of construction units and units for maintenance of green areas to new geographical areas (all six municipalities of Gorizia)
 - Providing sweeping services to other municipalities

- d. **Threats**-Changing regulations or market demands? Sufficient investment or too much competition?



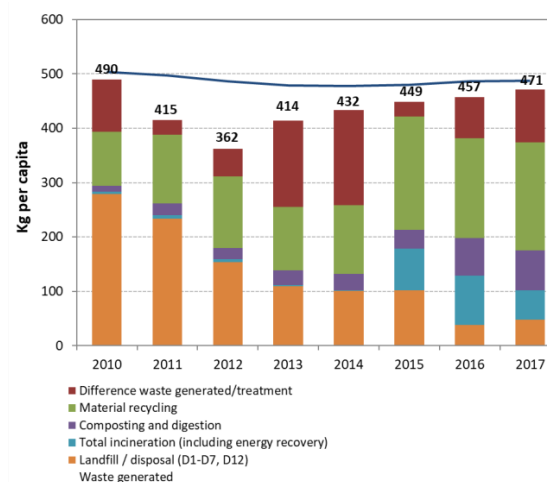
- Not having concession contracts with five municipalities (except MONG) for the implementation of GJS waste management.
- Legal changes in the field of funeral activities and the possibility of not obtaining a concession for the provision of on-call service and the loss of cemeteries for management in municipalities
- Cheaper service providers - cheaper competition



9. Conclusions

Slovenia produces an average of 471 kg of municipal waste per person, per year. However, according to 2017 studies the performance on waste generation varies widely between municipalities. Contributing factors include:

- the lifestyle and awareness of residents;
- the municipality's capacity for waste disposal; and
- the willingness of municipalities to find new solutions.





The country's success is mainly due its efforts to change waste management policy, moving from a nearly all landfilling (the landfilling rate was 65 % in 2007) to a predominantly recycling society. In 2017, the landfilling rate was 10 % and the incineration rate was 11 % —an important increase since 2014. Slovenia's municipal waste recycling rate is growing faster than the EU-28 average. With a 58 % recycling rate for 2017, Slovenia has already exceeded the 2020 municipal waste recycling target of 50% and is now focusing on the post-2020 recycling targets.

A total of 535 kg of waste was disposed on average per capita in the region. Reducing waste is a key challenge for the region in the future. There is a large landfill in the region in Stara Gora¹⁵ (CERO - Center for Waste Management Gorica), which was updated in October 2017. Of the waste generated in 2018 was 66.6 percent collected separately. The industry disposes of its waste together with municipal waste, except when it has its own landfill for certain wastes. It is important to note that Cementarna Saloni Anovo has permit for incineration of 89 different types of waste, including hazardous (hydraulic oils, insulating oils and heat transfer, bilge oils, etc.).

It is necessary to reduce the amount of waste in the Goriška region and encourage their reuse with appropriate separation, the waste can be further sub-sorted and stored accordingly, and take care of their permanent destruction / reuse. Municipalities in the Goriška region have accepted directives on municipal waste management, thus regulating the field of waste management. With appropriate separation we can help reduce the carbon footprint.

The European environment policy has been structured upon 7 Environmental Action Plans (EAPs) until today, under which several strategies and policies were developed and an extended framework of legislation (Directives, Regulations and Decisions) was issued. Currently, the 7th EAP (2013-2020, In: OJ L 354, 28.12.2013) is in force and aims to provide the guidelines regarding the European environment policy until and beyond 2020.

It should be highlighted that in the 7th EAP the circular economy concept is for the first time clearly introduced. In the circular economy model value of materials, components and products is maintained for as long as possible. This model is based among others on sharing, reuse, repair and recycling. Moreover, waste minimisation as well as reduction of primary materials' use is achieved.

Furthermore, waste management is definitely one of the key issues in the 7th EAP and more specifically the Action Plan focuses on the following aspects (Vogiatzidaki, 2019):

- Reduction of waste generated through prevention of waste production.
- Turning waste into useful resources through re-use and recycling. Waste are not considered solely the source of pollution, but they can become valuable source of materials and enter the life cycle of products again.
- Minimisation of damaging waste management practices such as landfilling
- Appropriate implementation of waste policies and measures in all MS.

The conclusions are a summary of the process that was conducted in cooperation with various regional and local stakeholders in the frames of focus group meetings and based on a recognised and clearly stated common objective for Slovenia as well as Goriška to continue the path of development towards the circular economy. How fast the region will progress on this path depends mainly on how successfully we will overcome or eliminate the identified obstacles.



The action plan, according to the regional (and national) needs calls for the promotion of cooperation and the bottom-up acquisition of ideas (the economic sector, citizens and NGOs, local communities) that can help the government to develop an action plan for the Circular Transition of Slovenia, nonetheless the Regional Development Program 2021-2027.

The needs that we identified with stakeholders in the dialogue at regional consultations and meetings with the local authorities (municipalities) can act as a starting point for the record of the action plan for the transition to the circular economy of the Goriška region. They are distributed in areas within a circular triangle that are interconnected and interdependent.

- The circular economy as a strategic priority of Slovenia – the Government has to consider the circular economy as a horizontal link between all areas – interdepartmental integration is not sufficiently active, the majority of activities are still linked to the Ministry of the Environment and Spatial Planning, while the extent of involvement of other ministries, is not sufficient.
- A more proactive fiscal policy – the Ministry of Finance should be more flexible in adapting fiscal policies to promote the transition to circular business operations.
- Harmonisation of subsidy policies – certain policies between individual sectors are non-harmonised and even contradictory, they do not promote circular management; therefore, conflicting policies need to be harmonised as soon as possible.
- Green public procurement – public institutions need to communicate the green procurement, the resulting opportunities and examples of consistent implementation in a more coherent manner, in particular on the level of public institutions. For an efficient execution of green public procurement, they should transfer good practices between various operators and respond more quickly to identified obstacles.
- Green jobs – cooperation between different sectors should enable an effective policy for securing green jobs. A mechanism should be established to enable the involvement of competent individuals in scientific and research projects in the field of the circular economy.