

PROGRAMME CONCEPT NOTE SLOVENIA

EEA and Norwegian Financial Mechanisms 2014 – 2021

Document date: 30.08.2018

Version No. : 03 / **Updated :** 20.03.2019

Basic information

Programme title:

CLIMATE CHANGE MITIGATION AND ADAPTATION

Programme Area:

Renewable Energy, Energy Efficiency, Energy Security

Climate Change Mitigation and Adaptation

Good governance, Accountable Institutions, Transparency

Area(s) of support:

PA no. 12: Renewable Energy, Energy Efficiency, Energy Security

Renewable energy production and/or distribution

Renewable energy policies in all relevant sectors

PA no. 13: Climate Change Mitigation and Adaptation

Strategies, action plans and/or contingency plans

Reduction of greenhouse gas emissions

Climate change adaptation measures

Climate change-related extreme weather preparedness and risk management

Carbon capture and storage

PA no. 16: Good governance, Accountable Institutions, Transparency

Institutional capacity-building

Cooperation between government and civil society

Special concerns in the MoU: *NFM/EEA FM: The programme shall contribute to increased public awareness of climate change processes and their impact, and improved planning and management competencies among key stakeholders in Slovenia. Pilot and demonstration activities shall be supported.*

Special concern shall be given to reduction of greenhouse gas emissions. The following activities shall be explored in the preparation of the concept note: restoration of ecosystems with a potential to contribute to climate change mitigation and adaptation; sustainable mobility; circular economy and less established renewable energy sources.

The possibility of including measures under PA11 'Environment and Ecosystems' shall be explored in the preparation of the concept note.

NFM: Cooperation with Norwegian entities and international organisations at project level shall be encouraged.

EEA FM: Cooperation with donor state entities and international organisations at project level shall be encouraged.

Programme Grant:	<i>Total</i>	€ 14,500,000
	<i>EEA Grants</i>	€ 12,000,000
	<i>Norway Grants</i>	€ 2,500,000

Programme Operator: *Government Office for Development and European Cohesion Policy (GODC)*

Donor Programme Partner(s): *Norwegian Environment Agency (NEA)*

Other Programme Partner(s): *N/A*

Programme description and justification

1. Needs and challenges the programme will address

The programme will address challenges and specific needs of Slovenia in relation to **climate change mitigation and adaptation** as derived from the objectives set by the Slovenian Development Strategy 2030¹, in particular strategic objective 8 – Low-carbon circular economy and strategic objective 9 – Sustainable natural resource management. Furthermore, the programme considers the need for compliance with applicable EU legislation on climate change, environment and energy² and implementation of relevant national policy documents:

- Strategic Framework for Climate Change Adaptation (adopted by the Government of the Republic of Slovenia on 7 December 2016);
- National Renewable Energy Action Plan 2010-2020 (NREAP), Slovenia (adopted by the Government of the Republic of Slovenia on 8 July 2010, updated 2017);
- Transport Development Strategy of Slovenia (adopted by the Government of the Republic of Slovenia on 29 July 2015);
- Natura 2000 Management programme for Slovenia for the period 2014-2020 (adopted by the Government of the Republic of Slovenia on 24 March 2016);
- Framework Programme for the Transition to a Green Economy (adopted by the Government of the Republic of Slovenia on 29 October 2016) and
- Roadmap towards the Circular Economy in Slovenia (April 2018).

Due to geographically diverse landscapes and various climate types, Slovenia is today witnessing considerable changes in climate variables, such as rising air temperatures, changes in precipitation patterns and more extreme weather events. Based on Slovenian Environment Agency data, the average yearly air temperature in Slovenia has increased by 1.7 degrees Celsius since 1961. Climate change scenarios for 2050 show that the air temperature in Slovenia will continue to rise, increasing on average by two degrees Celsius all over the country.³ The consequences of climate change are already evident in forestry, agriculture, water management as well as in deterioration of ecosystems.

As climate change mitigation and adaptation is a long-term and very complex process that requires interdisciplinary action by various sectors and levels of society, the proposed programme addresses selected challenges recognized as implementing gaps in the current Slovene climate change related policies, namely:

- High greenhouse gas emissions from transport;
- Lagging behind leading European countries in the use of renewable energy sources and low-carbon energy supply;
- Moving towards a more “circular” economy to increase material productivity, strengthen a low-carbon society and green economic growth;
- Preserving ecosystems with an important function in mitigating climate change;
- Insufficient multi-sector governance in addressing complex climate and environmental policies.

The particular challenges, needs and deliverables have been selected based on a screening of other source of funding towards the same Programme Areas, notably funding from the EU⁴, as well as the stakeholder consultations held on 5 July in Ljubljana.

¹ http://www.vlada.si/en/projects/slovenian_development_strategy_2030/

² http://ec.europa.eu/environment/eir/pdf/report_si_en.pdf

³ http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/podrocja/podnebne_spremembe/SOzP_ang.pdf

⁴ Funding for the similar programme areas (in broad terms) from the EU amounts to €260.6 million (source: http://www.eu-skladi.si/sl/dokumenti/kljucni-dokumenti/op_ang_final_web.pdf)

Challenge 1: Slovenia needs to continue reducing greenhouse gas emissions, particularly in transport. Greenhouse gas emissions (GHG) indicate the burden of climate change. In 2014, total greenhouse gas emissions in Slovenia amounted to 16,582 kt CO₂ eq. which is a 19.2 % decrease compared to 2005 (EU -17.2%)⁵. Comparison shows that Slovenia is moving towards the European average of carbon footprint (2012 - EU28 7.4 t CO₂ eq. per capita, Slovenia 7.6 t CO₂ eq. per capita)⁶. According to the findings of the Environmental Report of the Republic of Slovenia for 2017, Slovenia fulfilled its international obligations and the set objectives of GHG emissions under the EU2020-goals⁷. However, the figures are still almost 3 times over the theoretical natural sustainability limit while the structure and emission trends in certain sectors are alarming.

In 2014, traffic accounted for 33 % of the total GHG while the energy sector contributed 27 %, industry 17 % (fuels in industry 10 %, industrial processes 7 %), agriculture 10 % and households 8 % of the total GHG. In the observed period, emissions in the transport sector increased their share in the GHG structure by 21.6 %⁸. At the same time, Eurostat data show that the amount of GHG in Slovenia increased by 1.3% between 2014 and 2015 (Eurostat 2014 - 16.68251 kT CO₂ eq., 2015 - 16.90595 kT CO₂).

Reduction of greenhouse gas emissions in traffic is therefore crucial. Key factors generating GHG in traffic are vehicle transit and high reliance on private cars instead of public transport for the purposes of daily commuting. For example, there were 531 cars per 1.000 inhabitants in Slovenia (SURS, 2016) whereas the EU average was 505 (Eurostat, 2016). According to the latest survey of the Statistical office of the Republic of Slovenia (2017) cars were the main mode of transport on 68% of the trips (made as a driver or as a passenger), on which 84% of all kilometres were made. Walking was the second most common transport mode on 21.3% of trips; a bicycle was used on 4.5% of trips and public means of transport (bus and train) on 4.3%.

Further to the Transport Development Strategy, the Government of Slovenia is currently supporting improvement of cycling and pedestrian infrastructure following the recently adopted Sustainable Urban Mobility Plans (SUMP) across 77 municipalities in order to accelerate transition from traditional traffic models to sustainable mobility. The analysis and consultations show that additional measures to change current mobility patterns and improve mobility management are necessary, in particular at intermunicipal / regional level and at large traffic generators (such as hospitals, sport centres, business parks, tourism attractions etc).

Challenge 2: Slovenia is falling behind the leading countries in the use of renewable energy sources. Ensuring a reliable and competitive energy supply in a sustainable manner and at the same time facilitating the transition to a low-carbon society is the primary aim of Slovene energy policy and one of the strategic objectives of Slovenian Development Strategy 2030. Slovenia still depends significantly on fossil fuels (60 %) and nuclear energy (23 % in the structure of primary energy sources, 2015). To achieve the long-term decarbonisation goals (-40% by 2030 compared to 1990) and to increase Slovenia's energy self-sufficiency, especially in the case of a non-nuclear energy scenario, Slovenia will, among others, need to increase the share of renewable sources of energy (RES).⁹ According to Eurostat 2016 data, renewable energy sources represented 21.3 % in Slovenian Gross Final Energy Consumption, which is above EU average (17 %) but far less than in Austria (33.5 %), Norway (69.4 %) or Iceland

⁵ Slovenia Environmental Report 2017/ Poročilo o okolju v Republiki Sloveniji 2017, Vlada Republike Slovenije, 2.3.2017

⁶<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdgp410&plugin=1>

⁷ c.f. Decision 406/2009/EC

⁸ Slovenia's Environmental Report/ Poročilo o okolju v Republiki Sloveniji 2017, Vlada Republike Slovenije, 2.3.2017

⁹ Draft Energy Concept of Slovenia - the strategy on energy 2030 and 2050 vision in public hearing procedures.

(72.6 %).¹⁰ The Slovenian Development Strategy set the target at 27% of RES in Gross Final Energy Consumption by 2030.

Biomass is the most important renewable source of energy, followed by hydro energy. During the last few years, a dynamic increase of the use of solar and biogas energy has been observed. Further to the Action Plan for Renewable Energy Sources, the future growth of RES will be further enabled, including in less established renewable sources (e.g. geothermal, wind, biofuels). However, the lack of technical expertise and funding as well as the absence of exploration wells, best practice examples and reliable mapping on one side and a weak promotion and administrative barriers (conflicting regulations, limited support measures) on the other hand prevent investments in less established renewable energy sources in Slovenia, in particular geothermal energy.

The potential to exploit shallow geothermal energy exists all over the country while the more cost effective, deep geothermal potential is limited to NE Slovenia. For both, the lack of field data increases the uncertainty of estimated potentials. Thus, geothermal energy in Slovenia is currently used for heating/cooling only and has not yet been exploited for electricity production.

In 2016, geothermal energy contributed 2.6 % (17 ktOE out of 648 ktOE, SURS) of all installed heating/cooling technologies in the country while the National Renewable Energy Action Plan 2010-2020 (NREAP) targets 21 ktOE by 2020.¹¹ The main geothermal heating/cooling installations are found in spa resorts, agriculture and some smaller individual facilities (manufacturing, sport facilities, households). However, in most cases there is no water reinjection installed, which is not environmentally sustainable. There are several district heating systems in Slovenia with the possibility to partly replace existing fuels and/or reduce the dependence on fossil fuels by additional installation of geothermal energy.

Challenge 3: Slovenia's economy is more carbon-intensive than the EU average.¹² The overall resource productivity (how efficiently the economy uses material resources to produce wealth)¹³ in Slovenia has improved over the last ten years. However, it is still below the EU average. In 2016, resource productivity increased to 85% of the EU average (1.9 PPS/kg compared to the EU average of 2.2 EUR/kg), meaning that for a unit of consumed resources Slovenia created 15% less GDP than the EU on average.¹⁴

One possible way to increase resource productivity and cut down greenhouse gas emissions is a switch from linear to circular economy. Slovenia faces numerous opportunities and challenges in the transition towards a circular economy and eco-innovation development. On the one hand, it is the third most forested country in Europe, abundant with natural capital and endowed with a high level of biodiversity and rich natural habitats. On the other hand, economic and systemic challenges still remain and do not facilitate and encourage the transition towards a circular economy.

The Government has declared circular economy and green development as Slovenia's strategic objectives and adopted the Framework Programme for the Transition to a Green Economy in October 2015.¹⁵ In broad consultation with business, NGO and local self-government sectors a

¹⁰ http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_31&plugin=1

¹¹ National Renewable Energy Action Plan (NREAPs) for Slovenia/ Akcijski načrt za obnovljive vire energije za obdobje 2010-2020, Posodobitev 2017, Ministrstvo za infrastrukturo, pg. 39-41, pg. 108 Table 22 – installed technologies, pg. 111, Table 24

¹² Country Report Slovenia 2018, European Commission, 7.3.2018, pg. 44.

¹³ Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

¹⁴ Development report 2018, Urad RS za makroekonomske analize in razvoj/ Institute of Macroeconomic Analysis and Development of the Republic of Slovenia, pg. 44-45

¹⁵ http://www.vlada.si/fileadmin/dokumenti/si/projekti/2016/zeleno/opzg_akcijski_nacrt_in_nacrt_aktivnosti.pdf

Roadmap towards the Circular Economy was put in place in Slovenia. Establishment of networks for the transition to a circular economy is also embedded in the Strategy of smart specialization of Slovenia¹⁶ within the priority area 2. Natural and traditional sources for the future. Despite the strong support for the circular economy in the strategic documents it is still a challenge to operationalise this concept in practice and provide actual support, to different partnership initiatives on the ground.

Challenge 4: Slovenia has designated 37.9 % of the land area as Natura 2000 sites¹⁷, which is the largest percentage of member states' land area in the EU (18.1 %), as well as 10.6 km² of marine waters.¹⁸ Although rich biodiversity of Slovenia plays an important role in climate change mitigation, our **ecosystems already suffer the effects of climate change while the services offered by the ecosystems are not yet recognised in the society and neither among professionals.**

Extreme weather events and natural hazards, such as sleet, floods/ droughts and fires, have influenced and damaged some of the mountain /alpine forests, wetlands and marine/coastal ecosystems during the last 10 years. This is, among other reasons, indicated in the high share of species and habitat types found in an unfavourable conservation status¹⁹. Climate change pressure on habitats and species is expected to intensify in the future. Therefore, it is necessary to strengthen the role, understanding and restoration efforts of ecosystems under climate change pressure.

Challenge 5: Climate challenges are complex and require new knowledge, new approaches and participation of various stakeholders at all levels. In addition, climate challenges and goals of a low-carbon society concern the integration of individual policies: transport, environmental, energy, spatial planning, fiscal, economic, technological development, rescue, health. Slovenia **faces insufficient multi-sector governance in the abovementioned areas.** The lack of governance is in particular observed in implementing recently adopted policies through needed coordination and adjustment of different sector regulations and measures that hamper the change, such as geothermal energy, sustainable mobility, ecosystem services and circular economy. Better integration of stakeholders from local to government level and different sectors into planning and implementation of mentioned policies is desired. Thus, Programme Area no. 16: Good governance, Accountable Institutions, Transparency is considered as a horizontal topic in the programme.

2. Expected outcomes of the programme and their contribution to overall objectives of the financial mechanisms

The proposed programme supports Slovenia's transition towards a low-carbon society as defined by the Slovenian Development Strategy 2030. The programme activities consider the gaps in climate change related policies and at the same time build on complementarity with existing ESI funds and achieved results so far from the FM09-014 SI002 and FM09-014 SI005 programmes. Following the special concerns of the Memorandum of Understanding, each Outcome is designed in the way that it addresses the specific challenges of climate change through a combination of soft, pilot/demonstration actions and good-governance measures.

¹⁶ http://www.svrk.gov.si/fileadmin/svrk.gov.si/pageuploads/Dokumenti_za_objavo_na_vstopni_strani/S4_dokument_V_2017E_N.pdf

¹⁷ According to the EC: "Natura 2000 is a network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right. It stretches across all 28 EU countries, both on land and at sea. The aim of the network is to ensure the long-term survival of Europe's most valuable and threatened species and habitats, listed under both the Birds Directive and the Habitats Directive."

¹⁸ The Environmental Implementation Review, Country Report- Slovenia, pg. 10

¹⁹ https://biodiversity.europa.eu/countries/eu_country_profiles/slovenia

2.1 Increased renewable energy production (Outcome 1)

Promotion of geothermal energy (and other less established renewable energy) sources (RES) is at the centre of this outcome. The reason why geothermal is particularly highlighted is due to the fact that there is absence of appropriate support funding mechanisms, lack of expertise, innovative practices and awareness on opportunities, benefits and technological solutions of geothermal potential in Slovenia.

Although the NREAP defined geothermal energy as RES with certain potential it has so far never been systematically addressed in Slovenia. Outcome 1 aims primarily at increasing basic expertise, human and institutional capacities for enhanced, sound and sustainable use of geothermal potential in Slovenia and at the same time demonstrating several innovative solutions in different sectors. Outcome 1 will be implemented through an open call for proposal supporting two types of projects:

1. Partnership project(s) bringing together research, professional associations, support and other organisations focusing on the following measures: (i) mapping and presenting (shallow) geothermal energy potential in the areas defined by the applicants, (ii) assessing the regulatory framework and subsidy support schemes for geothermal energy and proposing recommendations for improvements, (iii) providing specialised trainings for drilling technicians/ engineers and other professionals in the geothermal energy sector and (iv) targeted awareness raising campaigns in favour of accelerated use of geothermal energy.
2. Pilot/demonstration projects, which will be open towards both a) and b):
 - a) exploiting geothermal energy by installing new or upgrading existing energy facilities for heating or cooling purposes, such as district heating systems, individual agriculture, tourism or other business facilities, major public buildings or facilities (*main focus*);
 - b) exploiting other less established renewable energy sources (RES) such as wind, biofuels, tidal power. for public or business purposes.

Demonstration projects shall reduce dependency on non-renewable energy sources, demonstrate reduction of CO₂ emissions, consider cost-efficiency and serve as innovative models for others.

The importance of the shift from fossil to low-carbon energy in the view of climate change mitigation shall be strengthened through the supported projects.

The programme exploits the opportunity to transfer state-of-the-art practices and know-how in geothermal and other RES technologies from Donor States. Therefore, extensive co-operation with partners from donor countries is foreseen.

The following deliverables (outputs) are expected:

- Detailed mapping of shallow geothermal technical potential of selected less investigated areas across Slovenia including final digital presentation carried out;
- Improved expertise in Slovenia in geothermal drilling, trained in modern technologies and environmentally sound methods of drilling, exploration and use of geothermal energy;
- Awareness-raising campaigns boosting the use of geothermal energy and other less established RES among potential investors in public and private sector carried out;
- Report with recommendations for improvement of regulatory framework and adaptation of subsidy schemes for the accelerated use of geothermal energy elaborated;
- Innovative pilot and/or demonstration projects implemented and increasing installed capacities in renewable energy production from geothermal and other less established RES.

Expected impact:

- Improved capacity to develop less established renewable energy sources:
 - o Improved understanding of technical potential of shallow geothermal energy among professionals;
 - o Increased awareness of the geothermal energy potential and better accessibility and reliability of information for end users;
 - o Extended competences, expertise and network of professionals operating at the Slovenian local market of geothermal energy support sector;
 - o Framework for policy improvement and long-term platform for promotion of geothermal energy in Slovenia set up.
- Increased renewable energy production from geothermal energy and other less established RES.
- Contribution to the reduction of greenhouse gas emissions in the energy sector.

Target groups:

Beneficiaries are any public (such as municipalities, local energy agencies, research institutes, public utility companies, district-heating managing companies) or private (such as enterprises, institutions, co-operatives), commercial or non-commercial and non-governmental organisations engaged or interested in RES.

End beneficiaries are:

- Professionals such as (i) engineers or technicians engaged in drilling/boring/geothermal industry and ii) energy advisors, architects and civil engineers, municipal planners, property managers and similar professionals in need of additional skills in geothermal energy;
- Business (e.g. tourism, food production, agriculture and other);
- General public in the areas with geothermal potential and in need of information on potential strengths and weaknesses of the introduction of geothermal energy and other less established RES.

2.2 Enhanced sustainable mobility management (Outcome 2)

Outcome 2 will support setting up and piloting/demonstrating sustainable mobility management in selected regions and at high volume traffic generating spots.

While Ministry of Infrastructure is currently providing significant Cohesion funds for urban infrastructure measures following municipal Sustainable Urban Mobility Plans (SUMP), such as cycling and pedestrian infrastructure, park & ride systems etc., inter-municipal planning and regional mobility management has been left aside, despite the fact that intense daily car commuting within regions and between towns contributes considerably to CO₂ emissions. Therefore, the programme is, following the Norwegian best practices (e.g. Oslo Package and the Regional Strategy for Land Use and Transport for Oslo and Akershus), primarily looking for an appropriate governance model in the form of regional mobility centres that could be incubated and established within existing Regional development agencies or similar bodies at the regional (NUTS 3) level. Such regional mobility centres shall:

- Facilitate communication between local and national stakeholders engaged in transport and traffic;
- Take over survey and analysis of citizen mobility needs;
- Advise local actors on mobility planning and propose tailor-made inter-municipal solutions, with the intention of changing the existing modal split in favour of sustainable mobility modes.

The proposed initial regional mobility management idea shall be further elaborated into a model and piloted in at least three regions. In parallel, one of the Slovenian regions will be funded to develop a Sustainable Regional Mobility Plan (SRMP) based on the existing National Guidance on SRMP and the experiences obtained through elaboration of local SUMP.

Moreover, the programme focuses on a practical demonstration of another developed national policy measure - guidance aiming at better governance of sustainable mobility for different large traffic generators across Slovenia. These spots, such as regional hospitals, business parks, tourist attractions, nature sites in protected areas, sport and education centres, attract a high number of users and generate high traffic pressures in the affected areas. In order to reduce car traffic in these areas, sustainable and soft mobility²⁰ concepts need to be introduced and planned, and first concrete actions implemented. Through management plans and concrete measures, selected high traffic generation locations shall accelerate the use of public transport, cycling and walking as a mode of access.

Close co-operation with Donor States partners is foreseen, especially in studying the application of the Norwegian regional mobility management model in Slovenia.

Outcome 2 will be implemented through a call for proposal supporting two types of projects:

1. Regional partnership project(s) bringing together regional development agencies, research institutions and other actors relevant for mobility planning at the regional level. Partnerships shall focus on the following activities: (i) development of a regional mobility management model including guidelines for dissemination and recommendations for improvement of legislation, (ii) setting up and piloting the regional mobility centres for at least 1-2 years during project implementation²¹, (iii) providing specialised trainings for professionals engaged in regional and inter-municipal mobility management, (iv) implementation of targeted awareness raising campaigns in favour of promoting sustainable mobility. Furthermore, (v) preparation of a pilot Regional Sustainable Mobility Plan following the existing national guidelines for RSMP is envisaged as a separate activity within the same or other regions in close collaboration with the relevant ministries, government offices and public transport providers.
2. Projects of large traffic generators proposed by the organisation managing the site and focused on the i) elaboration of a sustainable mobility plans for such institutions/ areas, ii) implementation of demonstration actions (soft and hard measures possible) and iii) implementation of education/awareness campaigns for target groups. If relevant, projects will be assessed against state aid regulation prior contracting.

The following **deliverables** are expected:

- New sustainable policy measures addressing critical barriers and gaps in sustainable mobility system at regional level developed and tested:
 - o A model, including guidelines for regional mobility centers;
 - o Regional Sustainable Mobility Plan;
- Mobility plans developed and first re-adjustment measures of mobility systems introduced at several large traffic generation locations in Slovenia.

²⁰ Sustainable mobility concerns developing and managing local areas, infrastructure and transport network as well as technological solutions, awareness and education that support practical, low carbon and environment friendly mobility. Soft mobility focuses on non-motorized transport (= human powered mobility): pedestrian, bicycle, roller skate and skateboard transfers.

²¹ Infrastructure costs for setting up regional mobility centres are not envisaged and thus will not be eligible.

Expected impact:

- Improved capacity and policy measures for promotion of sustainable mobility management at regional level and ability for dissemination of measures across the country;
- Reduced traffic congestions at high volume traffic generation locations;
- Influence on the change of mobility patterns;
- Change of mobility patterns, increase the number of passengers using public transport and other sustainable means of mobility over cars in participating regions and at high traffic generation locations influenced;
- Contribution to the reduction of a carbon footprint in transport in the long run.

Target groups:

Beneficiaries are any public (such as regional development agencies, research institutes, municipalities, public utility companies) or private (such as enterprises, institutions, co-operatives), commercial or non-commercial and non-governmental organisations relevant to sustainable mobility management at the regional level or at high volume traffic generating spots.

End beneficiaries are:

- Professionals such as (i) regional planners, (ii) municipal traffic and urban planners, (iii) operators in public transport companies, (iv) transport/ site managers at high volume traffic generating spots and traffic engineers, (v) communication and information experts;
- Public and private transport providers, operators of bus terminals, train stations and other transport hubs;
- Major employers;
- Operators and users of large traffic generators;
- General public, in particular daily commuters in respective target areas.

2.3 Increased application of Circular Economy principles (Outcome 3)

Outcome 3 will support the transition of Slovenia to a low-carbon circular economy as one of the 12 strategic objectives of Slovenian Development Strategy 2030.

Through an open call, the programme aims to support innovative development partnerships for low-carbon circular economy, seeking and demonstrating various new solutions related to the manufacturing. The Roadmap towards the Circular Economy in Slovenia identified the Manufacturing sector as one of four areas with highest circular potential. Manufacturing is also one of the main consumers of materials, water and energy, and one of the largest producers of waste products. Circular business models and associated value chains can be implemented in manufacturing, starting with the ecological design, implementation of new materials, restoration of products, use of secondary sources prior to the industrial symbiosis, fair sourcing in supply chain, etc. The manufacturing sector represents all kind of enterprises that convert raw materials into products (preferably locally made) or semi-finished products. Furthermore, their consumers and organisations within their supply and distribution chain, from design, production, processing, transport, sale, commerce, supporting services, consumption, collection and treatment of waste also play an important role in achieving the low-carbon circular economy targets. When we talk about the need to change the modes of production and consumption, the effects can be most visible in the field of manufacturing.

Contrary to mainstream schemes, the programme is opening the room to a cross-sectoral approach and stimulating cooperation between enterprises, local communities and suppliers, public institutions, NGOs and consumers on building innovative local/regional cooperation modes or chains for the low-carbon circular economy.

In this way the programme directly addresses two of five intervention areas listed under the Low-carbon circular economy goal of the Slovenian Development Strategy 2030: i) breaking the link between economic growth and growth in consumption of resources and GHG emissions, which will be possible through education and including various stakeholders in the transition to a circular economy and b) promoting innovation, the use of design and information and communication technologies to develop new business models and products which use raw materials and energy more efficiently and through adaptation to climate change.

Partnerships shall focus on the following activities: (i) setting up of local/regional partnerships for the low-carbon circular economy, (ii) developing and implementing innovative pilot solutions in relation to the manufacturing sector, (iii) integrating enterprises, consumers and/or local community, (iv) implementing targeted awareness raising campaigns in favour of promoting new consumer patterns.

As Circular Economy is a rather new topic also for the Donor State(s), thus joint learning through thematic conferences, events and expert visits is encouraged.

The following deliverables (outputs) are expected:

- Best practices and innovative solutions introducing circular economy approaches in manufacturing sector in close cooperation with local and regional community demonstrated.
- Increased knowledge base and competences for introducing circular change actions in business and community practice;
- Enterprises and different consumer groups encouraged and educated in gradual changes in traditional consumer attitudes and consumption patterns.

Expected **impact**:

- Commitment towards circular economy in the society enhanced;
- Contribution to resource management and efficiency improved in the long run;
- Circular economy recognized as a green business opportunity, in particular for innovative small and medium sized enterprises (SMEs).

Target groups:

Beneficiaries are any public (ministries and government offices, innovation centres, creative hubs, design centres, research institutes, municipalities or private (enterprises – focusing on innovative SMEs, institutions, co-operatives, social enterprises), commercial or non-commercial and non-governmental organisations committed to circular economy.

End beneficiaries are:

- Professionals such as (i) government officials, (ii) representatives of NGOs engaged in circular economy, (iii) representatives of support institutions such as chambers, innovation and business centres.
- Education systems, including teachers and students.
- Business community, in particular SMEs in manufacturing and supporting business activities.
- Local and regional policy makers.
- General public as consumers.

2.4 Improved management of ecosystems under climate change pressure (Outcome 4)

Outcome 4 focuses on the restoration of deteriorated ecosystems and the integration of ecosystem services into planning and decision-making systems. Natural climate solutions

aiming at preserving biodiversity and ecosystems play an important role in climate change mitigation and/or adaptation.

The effects of extreme weather events in Slovenia are already evident in wetlands, alpine/mountain ecosystems, particularly in forests, as well as in coastal/marine ecosystems. Thus, the programme intends to promote new climate change adjusted management approaches towards preserving ecosystems and implementing respective pilot restorations of the three most significant ecosystems which face the highest climate change pressures. The targeted deteriorated ecosystems are understood in broad terms yet they shall demonstrate that they address negative effects of climate change (e.g. impact of extreme weather events, sleet, floods, drought on water) and high contribution to climate change mitigation (e.g. CO₂ retention). The issue of species and habitat types (HT) designated under Natura 2000 or registered as EU important species/HT, which are found in an unfavourable conservation status within targeted ecosystems, shall be addressed.

The programme is also looking for proposals of governance models for the integration of ecosystem services into planning and decision-making processes, which are related to spatial planning as well as agriculture, forestry, water and other significant resource management systems. These governance models should be developed within Natura 2000 sites where restoration will take place. The focus is on mapping of ecosystem services, engagement and training of relevant stakeholders and on setting the best governance models that shall be piloted at the territories of the above-mentioned ecosystems. The piloting shall result in a commonly agreed study/survey of ecosystem services for the targeted area and guidelines that will enable the replication of tested models.

Slovenian institutions and their professionals have only a basic understanding of ecosystem services, and there is no established practice of considering the integration of ecosystem services into planning and decision-making processes. Thus, the collaboration with expert partners from Donor State(s) is an advantage.

Outcome 4 will be implemented through a call for proposal supporting partnership projects bringing together nature conservation, agriculture/ forestry/ water management bodies, municipalities, NGOs, research and other stakeholders relevant to ecosystem restoration and ecosystem services promotion. Partnerships shall focus on the following activities: (i) pilot implementation of a concrete restoration in nature in case of deteriorated ecosystems, and (ii) mapping of ecosystem services required to develop appropriate governance model(s) for integration in decision making, and (iii) implementation of a targeted awareness/education campaign and specialised trainings for relevant professionals.

The following deliverables (outputs) are expected:

- Devastated ecosystems under climate change pressure, primarily three different and most exemplary ecosystems in Slovenia, restored;
- Ecosystem services mapped and respective governance models for their integration into decision making processes developed, at least for the area covered by Natura 2000 sites where restoration is supported;
- Local population, stakeholders and their professionals from the supported territories with increased capacities, understanding and competences for managing climate change sensitive ecosystems and preserving their services

Expected **impact**:

- Improved knowledge base for gradual systematic introduction of the obligation for consideration of ecosystem services in the formal planning and decision-making procedures in Slovenia;

- New practices and natural climate solutions in integrated management approach towards deteriorated ecosystems and ecosystem services preservation, ready for dissemination across the country;
- Contribution to preservation of ecosystems under highest climate change pressure and their services;
- Increased resilience of restored ecosystems to climate change in the long term.

Target groups:

Beneficiaries are any public (such as public institutes, research, municipalities, regional development agencies, nature park management bodies) or private (such as enterprises, institutions, co-operatives), commercial or non-commercial and non-governmental organisations relevant to biodiversity and ecosystem preservation.

End beneficiaries are:

- Professionals such as (i) planners in forestry, agriculture, water management bodies, (ii) municipal urban planners, managers of communal infrastructure and open space, (iii) protected area managers, (iv) professionals in nature and culture preservation, (v) regional and local development experts, (vi) representatives of relevant ministries, (vii) communication and information experts;
- General public, schools (teachers, students) and the business community (farmers, tourism providers, investors), particularly in targeted pilot areas.

3. The process leading to the programme concept note

During the preparation of the Memorandum of Understanding (MoU) the National Focal Point (NFP) consulted relevant ministries and representative organisations of regional development agencies (RDAs) to express interest in cooperation and topics. A workshop was organised in 2017, where potential topics have been discussed.

A public consultation event for the preparation of the Concept Note was carried out in cooperation with the Financial Mechanism Office (FMO) and the Donor Programme Partner (DPP) on 5 July 2018 in Ljubljana. The Programme Operator (PO) invited 36 institutions from public, private and civil society sector to participate in the consultation. A short discussion paper summarising the findings of the process to date was sent out beforehand with the invitation. 34 participants, comprised of business associations, educational and research institutions, ministries and relevant government bodies, regional development agencies, NGOs and associations of municipalities, attended the public consultation event. Findings from the consultation were further discussed with the FMO and DPP. Key ministries were asked for additional clarifications on a need basis. The Concept Note was prepared on the basis of collected inputs.

Applicable State aid rules

In accordance with EU rules the Programme Operator will assess all projects against state aid legislation prior contracting. To reduce risks of falling outside validity period of existing state aid schemes, the Programme Operator will develop specific state aid schemes following the “de minimis” principle (as per EU Commission Regulation No 1407/2013) and regional state aid and support to enterprises as block exemptions (as per EU Commission Regulation No 651/2014) and notify them by the Ministry of Finance as authorised Slovenian authority for state aid monitoring.²² The specific state aid schemes will not be notified to the European Commission in line with the Commission Regulation No 651/2014 of 17 June 2014.

²² State aid scheme for the programme will be developed in accordance with EU state aid rules and it will be notified by the Ministry of Finance

Bilateral ambitions

Bilateral cooperation with the Donor States is an inherent component of the entire programme and shall be addressed in projects contributing to all programme outcomes. Project partners in Donor States will cooperate in the sharing of expertise, policy solutions and support schemes, good practices, successful governance models and through exchange visits, trainings and conferences.

Bilateral cooperation will be strengthened through institutional cooperation under all Outcomes. Within Outcome 1, strong expertise support and exchange of professional staff in charge of geothermal renewable energy from Donor States is vital for successful promotion of geothermal potential in Slovenia. The engagement of Norway and other donor partners in the transfer of best practices and governance models in sustainable mobility management (Outcome 2) and in management of ecosystems under climate change pressure (Outcome 4) will be beneficial for Slovenian actors coping with the challenges of climate change measures in traffic and biodiversity. Joint transnational learning in introducing Circular Economy (Outcome 3) measures shall add value to the programme and also to Donor States organisations.

The roles and responsibilities of the DPP, the Norwegian Environment Agency, in the preparation and implementation phase are defined in the Rules of Procedures of the Cooperation Committee.

The DPP has contributed with expertise and advice in the development of the Concept Note and through active participation at a public consultation event and bilateral meetings. In the implementation phase, the DPP will support potential beneficiaries with advising on potential project partners in Donor States and through the organisation of joint events offering the opportunity for networking and transfer of good practices to beneficiaries and other stakeholders. The DPP will be invited to participate in the selection process and will have a non-voting role in the body responsible for taking the decision on project selection.

The programme intends to use funds allocated to the programme as per the MoU for the following bilateral activities:

- Preparatory visits aiming at project development;
- Exchange of experts in respect to renewable energy, in particular geothermal energy;
- Joint thematic events for Circular Economy;
- Other joint events, such as conferences and group study visits addressing the needs, challenges and solutions addressed by the programme. These will be organised in coordination with the DPP and may include interim events or a wrap up event presenting the results of bilateral cooperation and potential for further cooperation.

If in the MoU allocated funds are not sufficient for the above bilateral activities the Programme Operator will request Joint Committee for the Bilateral Funds (JCBF) for additional financing of bilateral actions from bilateral fund.

Any further needs will be discussed with the DPP and coordinated with the National Focal Point responsible for the Fund for bilateral relations to be included in respective implementation programmes.

Modalities

The programme will be implemented by way of:

	Number of call(s)/ SGS(s)/ PDP(s)/FI(s)	Planned Amount (€) (Per call, SGS, PDP, FI)*	Project grant rate (%)	Eligible applicants	Eligible partners
Call(s) for proposal:	1		Up to 90 %	Any entity, public or private, commercial or non-commercial, and non-governmental organisations, established as legal person in Slovenia.	Any public or private entity, commercial or non-commercial, as well as non-governmental organisations established as a legal person in Slovenia or donor states (<i>For Outcome 3 Norwegian entities only</i>), actively involved in and effectively contributing to the implementation of a project.
One Call, more deadlines:					
Outcome 1 – EEA Grants		5.000,000.00			
Outcome 2 – EEA Grants		4,881,135.90			
Outcome 3 – Norway Grants		2,683,569,98			
Outcome 4 – EEA Grants		3,000,000.00			
Total		15,564,705.88			

There will be one joint call for proposals published for all Outcomes with several deadlines. The applicants will apply to a specific outcome. It is also possible that within a distinct outcome a project addresses one explicit output only. Applications will be submitted electronically via an information system. Under the first deadline for submissions of project proposals, funds will be allocated for all outcomes. The objective is to support only the best projects, while the remaining funds will be committed under the following deadlines, their number will depend on the quality and number of project applications received. If a project application is late for a specific deadline, it will automatically be processed at the next one.

Programme objectives and indicators

	Description	Indicators	Baseline	Target
OBJECTIVE	Climate change mitigated and vulnerability to climate change reduced			
Outcome 1	Increased renewable energy production	Estimated annual CO₂ emissions reductions (in tonnes)	0	2,300 tonnes²³
		Estimated production of renewable energy (in MWh/year)	7.532.751 MWh²⁴	7.542.643 MWh²⁵
Output 1.1	Improved capacity to develop less established renewable energy sources	Mapping of technical potential of shallow geothermal energy carried out	No	Yes
		Report on necessary legislative amendments of subsidy schemes for the accelerated use of geothermal energy prepared	No	Yes
		Number of experts trained in geothermal technologies	0	20
		Number of people reached by awareness raising campaigns	0	500
		Number of awareness campaigns carried out	0	1
Output 1.2	Energy production from less established renewable sources installed	Installed capacity of less established RES in MW	0	2.4 MW ²⁶
Outcome 2	Enhanced sustainable mobility management	Sustainable mobility policy measures/tools at regional level introduced	0	2²⁷
		Average annual increase of trips made by sustainable means of transport in the areas supported by the programme²⁸	0	4%

²³ Estimation based on the targets achieved by comparable project, Source: the Ministry of Infrastructure.

²⁴ Total contribution (final energy consumption) of all RES technologies amounted 647.7 ktoe in 2016 (of which 43,9 ktoe geothermal energy without low temperature pumps). Baseline calculated from ktoe to MWh. Source: Report on the progress of the Republic of Slovenia further to the Directive 2009/28/EC, the Ministry of Infrastructure, 2017, Table 1c. http://www.energetika-portal.si/fileadmin/dokumenti/publikacije/an_ove/porocilo_si_ove_2017.pdf

²⁵ Only increase as impacted by this programme considered (+ 9,892.08 MWh).

²⁶ Calculated from the CO₂ target: 2,300 t CO₂=0.850566 ktoe. Such target contributes 21 % to the NERAP 2020 targets for increase of installed geothermal energy increase from 17 ktoe in 2017 to 21 ktoe by 2020, Table 22, of revised 2017 NERAP 2010-2020

²⁷ 1. Regional Sustainable Mobility Centre, 2. Regional Sustainable Mobility Plan

²⁸ Public transport, walking, cycling. The difference achieved in modal split in the year before and the year after the projects result. Reported at the end of programme.

Output 2.1	Measures to improve regional sustainable mobility implemented	Number of regional mobility centres piloted ²⁹	0	3
		Regional mobility management model developed	No	Yes
		Regional Sustainable Mobility Plan developed	No	Yes
		Number of people reached by awareness raising campaigns	0	150,000 ³⁰
		Number of awareness campaigns carried out	0	3
		Number of professionals trained in sustainable regional and inter-municipal mobility planning and management	0	60
Output 2.2	Plans for sustainable mobility management at high-volume traffic locations developed	Number of sustainable mobility plans for high volume traffic generating locations developed	0	5
		Number of pilot actions from sustainable mobility plans for high volume traffic generating locations implemented	0	5
Outcome 3	Increased application of Circular Economy principles	Share of targeted population ³¹ who self-report increased understanding of Circular Economy	0	5%
		Number of innovative ³² green technologies ³³ /processes/solutions applied ³⁴	0	2
Output 3.1.	Measures for Circular Economy implemented ³⁵	Number of circular economy demonstration / pilot projects implemented	0	7

²⁹ Regional mobility centres are a new management tool to be developed and tested in selected regions in order to accelerate the mobility planning, management and coordination between local and state level. High volume traffic generation locations are individual spots, such as regional hospitals, business parks, tourist attractions, nature sites in protected areas, sport and education centres, which attract a high number of users and generate high traffic pressures in the affected areas

³⁰ Estimated 50% of households in participating regions

³¹ Targeted population will be defined by project promoters and it may involve different target groups (such as company employees, residents of a municipality, clients of certain service providers ...). Achievements shall be measured by survey.

³² "Innovation" is defined as "Enterprises, including public entities, implementation of a new or significantly improved product (goods or services), or a process, a new marketing method, or a new organizational method in business practices, work place organization or an external relation. Innovation can be on enterprise level, sector level, national level regional level or international level." Please refer to the OSLO manual for a comprehensive definition (OECD: <http://dx.doi.org/10.1787/9789264013100-en>).

³³ Def. of "green technologies": a single technology that is less environmental harmful than the technology used today, encompassing technologies and processes to manage pollution (i.e. air/water/soil pollution control, waste management) and to use resources more efficiently.

³⁴ Definition of "applied": An enterprise is using a solutions/technology/product already developed/available in the market and adjust it to the enterprises' own need. These types of projects will often include a R&D component related to adjustment of material, process etc. applicant/enterprise's needs.

³⁵ In manufacturing sector.

		Number of intervention areas related to Low-carbon circular economy objectives of Slovenia Development Strategy 2030 addressed	0	2 ³⁶
Outcome 4	Improved management of ecosystems under climate change pressure	Total surface of rehabilitated land	0	100 ha
		Number of governance models integrating ecosystem services into the decision-making processes for targeted ecosystems in actual use	0	3
Output 4.1	Improved capacity for ecosystems management	Number of restored ecosystems with ecosystem services mapped	0	3
		Number of proposed governance models	0	3
		Number of professional staff trained	0	45
		Number of people reached by awareness raising and education campaigns	0	600
Outcome 5 (bilateral)	Enhanced collaboration between Slovene and Donor State institutions involved in the programme	Level of trust between cooperating entities in the Beneficiary state and Donor States (scale 1-7)	TBD	At least 4.5, and an increase on the baseline.
		Level of satisfaction with the partnership (scale 1-7)	TBD	At least 3.5, and an increase on the baseline.
		Share of cooperating organisations applying the knowledge acquired from bilateral partnerships	0%	50%

³⁶ Slovenia Development Strategy 2030, Objective 8 Low-carbon circular economy (pg. 39) sets five intervention areas of which two/ three are addressed by this programme: a) breaking the link between economic growth and growth in consumption of resources and GHG emissions through education and including various stakeholders in the transition to a circular economy (Action Plan), b) promoting innovation, the use of design and information and communications technologies to develop new business models and products which use raw materials and energy more efficiently and through adaptation to climate change.

Output 5.1	Bilateral cooperation activities	Number of projects involving cooperation with a donor project partner	0	At least 25% of selected project
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Grant rate and budget

Programme eligible expenditure	€ 17,058,823.53
Programme grant rate	85.00%
Total programme grant	€ 14,500,000.00
Programme grant – EEA Grants (€)	€ 12,000,000.00
Programme grant – Norway Grants (€)	€ 2,500,000.00

	Budget heading	EEA Grants	Norway Grants	Total grant	Programme grant rate	Programme eligible expenditure
PM	Programme management	1,051,034.48	218,965.52	1,270,000.30	85.00%	1,494,117.65
PA12	Outcome 1	4,250,000.00	0.00	4,250,000.00	85.00%	5,000,000.00
PA13	Outcome 2	4,148,965.52	0.00	4,148,965.52	85.00%	4,881,135.90
PA13	Outcome 3	0	2,281,034.48	2,281,034.48	85.00%	2,683,569.98
PA13	Outcome 4	2,550,000.00	0.00	2,550,000.00	85.00%	3,000,000.00
	Total	12,000,000.00	2,500,000.00	14,500,000.00	85.00%	17,058,823.53