

"Circe - European regions toward Circular Economy"

INTERREG Europe Project



Policy Instrument Analysis and policy options

Project Partner 1 - Lead Partner

Lombardy Region

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1. Executive summary

This report focuses mainly on an analysis of the ERDF Lombardia Regional Operational Program 2014-20 (in the following: ROP), but it includes also a more synthetic analysis of the Regional Waste management program.

The report provides:

- the results of the analysis;
- the kind of potential actions (policy options and policy recommendations) to address the opportunities identified.

2. ERDF ROP- Policy instrument analysis

a. An overview and the link with Circular Economy

LP team analysed the ERDF ROP in order to identify the best way to support the opportunities highlighted by the project.

The ERDF ROP is based on the “Europe 2020 jobs and growth strategy”, aimed to pursue a smart, sustainable and inclusive growth and reach social, economic and territorial cohesion.

The ERDF ROP was identified in our Application Form (AF) as the most suitable policy instrument for the implementation of the EU Action Plan’s goals for the Circular economy [EU COM(2015) 614] because it:

- approaches the integration of regional policies, in order to improve their effects in:
 - restarting growth;
 - increasing the productivity of the regional private and public system;
 - increasing the competitiveness of enterprise and territorial system.
- considers innovation as a key tool to support these challenges;
- sees Public Demand to support innovation as a potential tool to start-up and scale-up new activities;
- states the need to increase occupation, considering green economy as an opportunity for that;
- supports complex investments projects;
- aims environmental protection and sustainability principals.

Although all these issues are strictly linked with the Circular Economy (CE) strategies, the ERDFROP was approved before adoption of the EU Action Plan for CE; therefore, the instrument needs to be reoriented in order to help more significantly the change of the local productive system towards CE.

In particular, our AF states:

“The project is going to act on POR Lombardia ERDF Axis 1 (“Strengthen research, technological development and innovation”). The actions of Axis 1 foreseen by POR Lombardia ERDF should be reoriented in order to fully accomplish the CE’s principles. These actions are related to the following objectives:

- 1.b.1 Improving the enterprises’ innovation activity (namely action 1.b.1.1 “Support [...] to technological, strategic, organizational and commercial innovation of enterprises”, 1.b.1.2 “Support [...] through experimentation and adoption of innovative solutions in processes, products and organization [...], and scale-up of research results” and 1.b.1.3 “Support for collaborative activities of R&D for the development of new sustainable technologies, new products and services”);

- 1.b.2 “Strengthening the national and regional innovation system” (namely actions 1.b.2.1 “System actions to support the participation of the actors [...]in agreement platforms, [...] national networks [...], such as the National Technological Cluster, and in projects funded by other European programs for research and innovation [...]” and 1.b.2.2 “Support to create complex R&D projects activities on a few relevant topics and to apply functional technological solutions to the implementation of strategies S3”).

POR Lombardia ERDF is a regional policy instrument suitable to drive changes toward the circular economy, for example by providing announcements taking into account the specific CE’s principles.”

In detail, output indicators related to Axis 1 of the ERDF ROP are reported in the table below, where PA = Priority Axis, IP = Investment Priority, SO = Specific Objective, ISTAT = Italian National Institute for Statistics, EPO = European Patent Office, RIS = Regional Information System, POM = Put On Market.

| PA | IP | SO | OUTPUT INDICATOR | Unity of Measure | Baseline value | Baseline year | Target value (2023) | Source |
|----|----|------|--|------------------|----------------|---------------|---------------------|--------|
| I | 1b | 1b.1 | Enterprises operating in R&D in cooperation with external entities | % | 28,93 | 2012 | 35,00 | ISTAT |
| | | 1b.2 | Total expenditure for R&D relative to the GDP | % | 1,33 | 2011 | 1,70 | ISTAT |
| | | 1b.3 | European patent applications from Italian firms published by EPO | number | 1326 | 2011 | 1525 | ISTAT |
| | | | Enterprises receiving subsidies for production investments | number | | | 1640 | RIS |
| | | | Enterprises cooperating with research institutes | number | | | 256 | RIS |
| | | | Enterprises receiving subsidies dedicated to new products POM | number | | | 400 | RIS |

The ERDF ROP includes five more Priority Axes:

2 – ICT

3 – Competitiveness of SMEs

4 – Low-Carbon Economy

5 – Sustainable Urban Development

6 –Development of Tourism in Internal Areas,

plus a seventh Technical Assistance axis.

Axis 1 was selected as a reference for policy options in the AF. However, coherence with Specific Objectives and related Programmes stemming from PAs 3-6 could be identified also, as in the table below:

| Other actions of the ERDF ROP related to CE | | | | |
|--|---------------------------|-----------|-----------|-----------------------------|
| PA | Thematic Objective | IP | SO | Number of Programmes |
| 3 | TO3 | 3c | 3c.1 | 1 (Innovation) |
| 4, 5 | TO4 | 4c | 4c.1 | 4 (Energy Efficiency) |
| 4 | TO4 | 4c | 4c.2 | 1 (Renewable Energy) |
| 4 | TO4 | 4e | 4e.1 | 3 (Sustainable Transport) |
| 6 | TO6 | 6c | 6c.1 | 1 (Sustainable Tourism) |

b. The “*Programmi di Lavoro Ricerca e Innovazione*” (Research and Innovation Work Programs)

The Lombardy Region Smart Specialization Strategy - S3 (S3 in the following), that drives the regional ERDF ROP Axis 1 actions, (<http://www.s3.regione.lombardia.it/wps/portal/site/s3/lombardy-s3-in-brief>), was approved with the DGR 1051 on December 5, 2013 as amended.

The S3 identified specialization areas where the efforts for developing research and innovation in the region should be concentrated to maximize the RoI.

In order to support the S3 and carrying out of the actions foreseen by the ROP, a key tool are the “*Programmi di Lavoro Ricerca e Innovazione*” (Research and Innovation Work Programs; in the following RIWP), approved by Lombardy Region every two years.

On starting from the specialization areas identified by the S3, this document identifies also:

1. macro themes;
2. themes of development;

in the following hierarchical relationship: a specialization area has several macro themes which have several themes of development. In the following we identify these 3 levels just as ToD.

This structure and in particular the themes of development identify a kind of set of priorities for innovation to be addressed by calls and projects of Axis 1.

The RIWPs are key documents to allow Circe to steer the ROP.

We analysed the version in force of the RIWP, approved by the deliberation of the *Giunta Regionale* X 5843/2016, “*Programmi di Lavoro Ricerca e Innovazione– 2017-2018*”.

In short, specialization areas, macro themes and themes of development merge the priorities to be addressed by ERDF ROP Actions. The ERDF ROP Axis 1 calls (and the projects presented in each call) have to implement those priorities.

In Lombardy Region the Axis 1 calls and projects are contained in a Data Base (SIAGE), where they are physically linked with the ToD.

c. Results of the analysis

The analysis of the ERDF ROP brought out the possibility to match the Specific Objectives and Actions of the ERDF ROP and Circe opportunities. Then, the analysis identified potential actions the Circe project can develop to steer the ROP.

For clarity, please note that in the following text the word “action” has two different meanings:

- a specific section of the ERDF ROP;
- a definite activity that needs to be done to address Circe project’s objectives.

To prevent possible misunderstandings, we identify the first meaning with the term “ROP Action” and the second with the term “CircE Action”.

The possible CircE Actions to be undertaken are:

1. Identifying already presented or financed projects and already planned calls, in order to
 - check if they can be linked (addressing or influenced) with CircE opportunities, firstly within Axis 1, then within all the other axes;
 - understand if the CircE results and the Current ROP Axis 1 actions ongoing are coherent
 - point out hints and analysis to enhance the CircE results and/or the ROP actions.
2. Influencing the design of new calls, firstly within Axis 1, then within all the other axes;
3. Launching new ROP Actions, firstly within Axis 1, then within all the other axes;
4. Drawing policy recommendations for the new programming period (2021-2027) of the ERDF, both in terms of internal (regional) policy options and common (CircE-wide) policy options;
5. Drawing policy recommendations for other plans and programmes, (e.g., the Regional Waste Management Program).

3. The ROP Policy options identified

Brought this analysis to completion and set this overall framework of potential general actions, down below we described how we deepened this analysis and defined how to steer concretely the ERDF ROP. We decided to use the RIWP document/tool as a kind of key, in order to act on the ROP through the kind of actions described above.

a. Steer the contents of the new version of “Programmi di Lavoro Ricerca e Innovazione” (Research and Innovation Work Programs) 2019-2020

What described below is a first CircE Action: Steering Research and Innovation Programs.

The Research and Innovation Work Programs have a duration of 2 year. The version in force is the 2017-2018. The drawing up of the new version is ongoing and it will be completed during 2019. The duration of the version in force (2017-2018) will be extended to the end of 2019.

The drawing up of the new version will be mainly an improvement of the wording describing each ToD, namely the scope and the rationale of each ToD, and the identification of new ToD, in order to support new emerged perspectives.

In order to do that, a specific process has been set up, which foresees public consultations and one-to-one meetings with pertinent stakeholders.

The CircE projects will be considered as one of these stakeholders.

In particular the CircE findings (opportunities, barriers, priorities) will be used to steer the development of this new version through:

- Supporting the revision of the rationale and the wording of existing ToD;
- Supporting the identification of new ToD.

In the end, considering, as said before, that the ToD are the principles to be addressed by the calls and which the calls have to take inspiration from, this means that steering the ToD can influence calls and projects of the last 2 year of the ROP programming period in coherence with CircE and toward CE.

So, this kind of analysis can be achieved during 2019 and its results can be monitored checking the change in the ToD's wordings and in the list of ToDs and in the number of new calls and projects presented, which are coherent with the CircE Opportunities.

b. Calls and project analysis

As already said before, the RIWP structure and in particular the ToDs identify a kind of set of priorities for innovation to be addressed by calls and projects of Axis 1.

In Lombardy Region the Axis 1 calls and projects are contained in a Data Base (SIAGE).

In this database the projects in particular are physically linked with ToD.

In order to identify on the one hand a link among projects and CircE opportunities and on the other a key to analyse the relationship between CircE opportunities and priorities of Axis 1, we linked the CircE opportunities with the ToD (using the ToD defined by the version in force of the RIWP).

Linking the CircE opportunities with the ToD allowed different kind of analysis, depending on different possible cases.

This analysis can be considered as a kind of feedback on the coherence among the work done in CircE and the work done by the regional ecosystem in presenting Projects for Axis 1 ROP calls .

Through this analysis the CircE team and the policy makers can get important hints for improving their activities.

The possible cases are described below:

- no link among CircE opportunity and ToD;
- link among CircE opportunity and ToD:
 - At least one project has been presented linked to this ToD;
 - No project has been presented linked to this ToD;

These different kind of possibilities suggest ideas to steer the current ROP, the future ROP programming period and other policy instruments (producing policy recommendations) and to suggest legislative changes. Concerning the current ROP, these ideas can support the direct enhancement of new calls and support the process of revision of the RIWP, described in the previous paragraph.

So, this second kind of analysis can be achieved during 2019 and its results can be monitored checking the number of new calls and the amount of new projects presented, which are coherent with the CircE Opportunities.

4. The Regional Waste Management Program

The waste management legislation (namely, art. 28 of Directive 2008/98/EC and art. 199 of Legislative Decree 152/2006) provides that the Regions approve regional waste management programs.

The same article 199 details which elements the regional waste management program must include.

The regional program (PRGR) is structured in two main sections:

- urban (municipal) solid waste;
- special waste.

In Lombardy, the waste management program in force was approved in 2014 (d.g.r. 1990, 20/06/2014); according to national and regional legislation (law 26/2003), regional planning must be updated every 6 years: consequently, the next update of the program must be issued by 2020.

a. The CircE project results

Considering the framework sum up above, it is the suitable time to start developing the updating of the program: policy recommendations emerged by the CircE Project fall properly.

In particular the CircE findings (opportunities, barriers, priorities and policy options) can provide detailed information, useful to produce more effective, pertinent and concrete actions.

Considering the wide range of information contained in the CircE analysis and the different scope of each opportunities, a significant contribution can be provided to all the activities described in the following, from the definition of the objectives to the identification, design and cost and benefits analysis of the actions.

In the process of development of the new program, the CircE stakeholder can bring their contribution, on the basis of what they learnt and set up in the project, increasing the value and the usefulness of the project results.

Beyond the specific considerations expressed in any paragraph below, in the end the CircE methodologies and approaches can be furtherly used to support all the analysis and processes which need to be carried out to develop the new PRGR.

In the following paragraphs the PRGR's areas and tools which the CircE results can support to boost circular economy are presented. In those paragraphs some further details on the CircE support are presented.

b. Urban waste

Foreword

Urban waste is composed by waste produced by households and non-hazardous waste produced by business activities which, in terms of quality and quantity, are similar to domestic ones.

The national legislation provides that the regions can set up "binding" rules for the management of urban waste, in particular for the disposal activities and for the treatment activities of the undifferentiated fraction.

The overall framework of the specific targets for the recovery and recycling of urban waste, as well as minimum separate collection rates, is provided by both the EU and the national legislation.

Details

The current version of the PRGR carried out an analysis of the current situation, with particular reference to the production of urban waste, the level of separate waste collection, the tariff situation and the regional plant endowment involved in their management. Three scenarios of urban waste production and separate waste collection were then hypothesised on the basis of demographic, economic, obligations and actions envisaged by the program: among the three scenarios, the one with "intermediate" value forecast parameters was selected. Considering the scenario envisaged by 2020, the objectives of the program have been declined, borrowing them both from the regulatory obligations and from the prospects for improvement of the management system that the Lombardy Region has imposed itself.

For each of the objectives, actions, deemed necessary for their achievement, have been foreseen.

These actions are of various types:

- restrictions and authorizations;
- economic-financial instruments (eg "ecotax");
- support tools (guidelines);
- incentive tools;
- communication actions.

The Program has not set aside funds for the implementation of the actions so far. This will be done with future actions.

c. Special waste

Foreword

Special waste is waste produced by business activities (industrial, agricultural, tertiary sectors, etc.). Unlike urban waste, they are not ruled by particular "territorial" constraints set up by national and EU legislation; however, the general principles of proximity of treatment and maximization of recovery are commonly applied. The only specific target given by the legislation is related to the recovery of construction and demolition waste (70% by 2020).

Details

The regional program for special waste in Lombardy provided a survey about their production, their treatment and their flows to and from other regions. A theoretical self-sufficiency rate in the treatment of special waste was then defined.

The same assessments have been made for some specific groups of special waste, such as construction and demolition waste, sewage sludge, bottom ashes, sanitary waste, asbestos-containing waste, etc.

Concerning these cases, virtuous orientations rather than numerical targets (with the exception of inert waste) were set up. These orientations should be the references for regional actions in the following years.

The CircE findings (opportunities, barriers, priorities and policy options) can provide a significant contribution to define a scenario for the orientation furtherly more concrete, pertinent and updated.

d. The Waste Prevention Plan

The PRGR developed a Waste Prevention Plan, which, in the current version, is mainly focused on urban waste. In the Waste Prevention Plan of the new PRGR the special waste will gain a significant wider room.

The CircE results (opportunities, barriers, priorities and policy options) can support the drawing up of the new version of the waste prevention plan. The CircE findings can provide a sound feedback and support in defining how to act in specific sectors in order to produce an effective waste prevention, also based on the awareness of the barriers which can hamper this process and the policy options which can overcome them.

e. Potential actions envisaged towards Circular Economy

Reading the PRGR with the perspective of the Circular Economy development, some further lines of action can be identified.

More challenging objectives

More challenging objectives can be first set up than those imposed by Community and national legislations, in particular on issues concerning:

- recycling;
- reuse;
- prevention of waste production.

The CircE findings can support this analysis helping the policy makers to identify priorities, issues which can hamper the achievement of specific results, potential more feasible solutions, etc.. In other words they can be considered a significant base of knowledge and awareness (in the 3 perspectives: environmental, economic and social) to support their choices.

Actions on special waste

Although urban waste is the area in which the Region has the greatest competence to act according to the law, they represent a minority of the total waste produced in Lombardy: special waste is about 7 times municipal waste (in terms of quantity).

Therefore, acting on special waste would make it possible to obtain more consistent results. This action is certainly more difficult from a legal point of view, since their management is completely left to the free market.

Concrete actions through different implementation tools

In any case, the objectives set out in the PRGR must be followed by concrete actions to be achieved, taking into account the regional competences in this area.

The implementation tools of the objectives set out by the program may be different:

- authorization requirements for installations;
- financial incentive tools;
- calls for tenders;
- studies and research
- technical guidelines addressed to plants or local authorities, etc ...

Even in this case, considering the wide range of information contained in the CircE analysis and the different scope of each opportunity, a significant contribution can be provided to all the activities above: from the definition of the objectives to the identification, design and cost and benefits analysis of the actions.

Further actions on the PRGR

Further ways to act on the PRGR are:

- identifying the most promising waste management areas in terms of development of the Circular Economy (both in terms of quantity of waste, both in terms of feasibility of recovery technologies at present);
- proposing further actions feasible by Lombardy Region that go in the direction of the regulatory objectives or the most challenging objectives for Lombardy Region.

The CircE findings (opportunities, barriers, priorities and policy options) can provide detailed sectorial information and recommendations, useful to produce more effective, pertinent and concrete analysis and actions.

5. The Stakeholders

The CircE Stakeholders were fundamental in identifying opportunities, barriers and priorities. Their role must be significant also in steering the policy instrument.

In particular, considering that the CircE analysis and results contain also their perspective and work, the Stakeholders' participation in the process of development of the new version of the RIWP must be a key contribution in order to effectively steer the ROP.

Their activity in that process should also check that the development of RIWP is coherent with their perspective.

Once the new version of the RIWP will be in force, the CircE Stakeholders will be able to run actions to boost projects, which address ROP calls, related to ToD (defined thanks to CircE or enhances thanks to CircE) coherent with the CircE findings.