
Symbiosis Users Network – SUN
Proceedings of the third SUN Conference

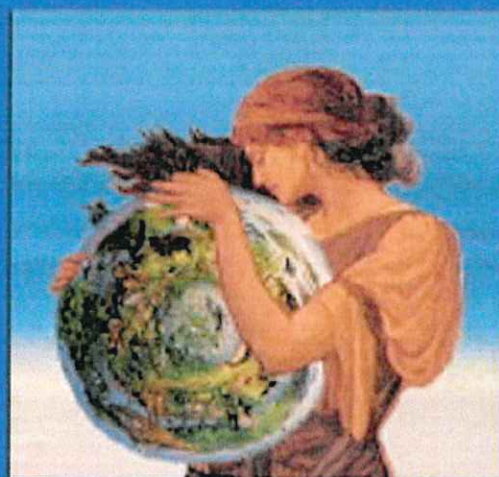
Best practices on industrial symbiosis in Italy
and the contribution of regional policies

Rimini
November 7th 2019

Edited by Tiziana Beltrani and Marco La Monica



Italian National Agency for New Technologies,
Energy and Sustainable Economic Development



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REGIONAL POLICIES TOWARDS CIRCULAR ECONOMY. THE EXPERIENCE OF ABRUZZO REGION

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ABSTRACT

This article addresses and analyzes the role played by regional policies in promoting a transition to a circular economy. In particular, it will be presented the initiative named "Carta di Pescara" for sustainable industry, a programmatic document of the Abruzzo Region, co-designed together with the business and academic world, which incorporates the guidelines of European policies on environmental sustainability applied to industry. It represents a strategic and virtuous tool capable of stimulating and promoting the implementation of individual and collective initiatives inspired by the canons of circular economy and sustainable development. This article will describe the general features of the governance tool, highlighting the first results, the potential benefits as well as the criticalities of this initiative.

Keywords: Regional Policy, Circular Economy, Sustainable Industrial Development

Introduction

The "Carta di Pescara" for sustainable industry (CdP) [1] can be defined as a programmatic document of the Abruzzo Region, co-designed together with the business and academic world, which incorporates the guidelines of European policies on environmental sustainability applied to industry. It is characterized by a collaborative and facilitative/rewarding mechanism in which the voluntary adherence stimulates the implementation of individual and collective initiatives inspired by the canons of circular economy and sustainable development.

The CdP is inspired by the European Union's strategic orientation and its policies on the environment [2-4]. In particular, it is based both on the general European principles of precautionary, correction at source, proximity, prevention, sustainability, empowerment, and cooperation and the "Europe 2020 Strategy". This strategy played a relevant role in the path of development of the CdP, as it proposes a ten-year strategy for the advancement of the economy of the EU, in order to reach a smart, sustainable and inclusive growth [5,6]. At local level, this strategy provides that each member region defines its own Smart Specialization Strategy (S3) which allows the concentration of policy interventions in those application areas that may have relevance for the European regions, in terms of competitive advantage [7]. The Abruzzo Region, through the entrepreneurial discovery process implemented in 2015 to put into practice the S3, has identified its own specialization technological domains, among which there are Automotive, Life Sciences, Agri-Food, Fashion Design and ICT&Space [8], which were chosen for the CdP.

Methods

The article describes the general features of the CdP. In the following sections, the choice of stakeholders, the structuring process, the selection and definition criteria of the rankings, the rewarding mechanisms are described. The first results obtained, some data on the current members and the potential benefits as well as the critical aspects of this initiative are presented.

The research uses a scientific and secondary literature base and qualitative and quantitative data deriving from direct participation in the project and from direct interviews conducted with the regional referents of the initiative, as well as reports related to the results obtained so far.

The “Carta di Pescara”: a brief analysis of the main features. The CdP is the result of a participatory path of co-planning developed together with the business and academic world; it offers companies that sign it a “business-regional partnership path” that recognizes specific advantages for companies that are committed to pursuing the goals of sustainable industry.

In view of this commitment, the Abruzzo Region identifies some benefits in terms of:

- simplified procedures (level of bureaucracy and local administrative costs are minimized);
- reduction of administrative and local taxes (regional taxes related to production activities are as low as possible);
- supporting legislation (dedicated legislative initiatives for simplification are on the way);
- priority (every call for proposal founded by European Regional Development Fund 2014 – 2020 Axis I and III is oriented towards the 5 technological dominions; among these, specific additional evaluation score is allocated for companies’ partner of the CdP).

The main features of CdP are described below and the main steps of development are shown in Figure 1:

The path of development: From January 2016 about 500 SMEs and about 10 large companies have been selected, using the following criteria: SMEs participating to Horizon 2020 or to the Seventh Framework Program or at least to ERDF 2007-2013 Program; SMEs having patents registered in the last 2 years; SMEs investing in research more than the regional average, and so on. The selected stakeholders were directly interviewed in order to know their main prospects for medium-term investments. At this point, the decision to focus on environmental sustainability and circular economy, as they emerged as salient and challenging aspects by all the interviews, was taken. In fact, the companies involved, recognize the environmental sustainability as a “market choice” to be more competitive in the international benchmarking of their products.

How to join. To be eligible to become a CdP partner, the applicant must meet several conditions, having the environment as the priority. Depending on the number and type (quantity and quality) of conditions met, CdP membership may be “basic”, “intermediate” or “advanced”; each level of membership will offer different types (or rate) of advantages. In the CdP, 61 is the total amount of the conditions recognized for the environmental, economic and social dimensions of sustainable development. Among the conditions of environmental sustainability (29 in total), were included solutions concerning the adoption and implementation of approaches and tools to minimize the waste and emissions; solutions for the recycling/re-using of water within the process; implementation of Life Cycle Thinking

approaches for products and processes; solutions for the adoption of tools and approaches for waste treatments inspired by circular economy.

Local stakeholders involved: The CdP is the result of the active participation of all the stakeholders involved by the Abruzzo Region. Among them there are the three regional universities (University of Chieti-Pescara, University of L'Aquila and University of Teramo) and regional research centers, the unions, the innovation hubs, representing the 5 vertical sectors of the S3 chosen for the CdP (Automotive, Life Sciences, Agri-Food, Fashion Design and ICT&Space). At regional level, the Department of Production Activities, the in-house structures of the Abruzzo Region, and the regional offices corresponding to these activities, such as the Energy and Environment Office, were involved. A control room was therefore established, chaired by the Director of the Region.

Monitoring phase: The progress of the CdP and the monitoring of the actual implementation of the commitments undertaken by the Abruzzo Region will be carried out by a steering committee composed of the following members: General Director of the Abruzzo Region; Director of the Department of Economic Development, Labor, Education, Research and University; a representative of the regional university system; a business representative for each of the five technological domains of the regional S3; a representative of the trade union organizations.

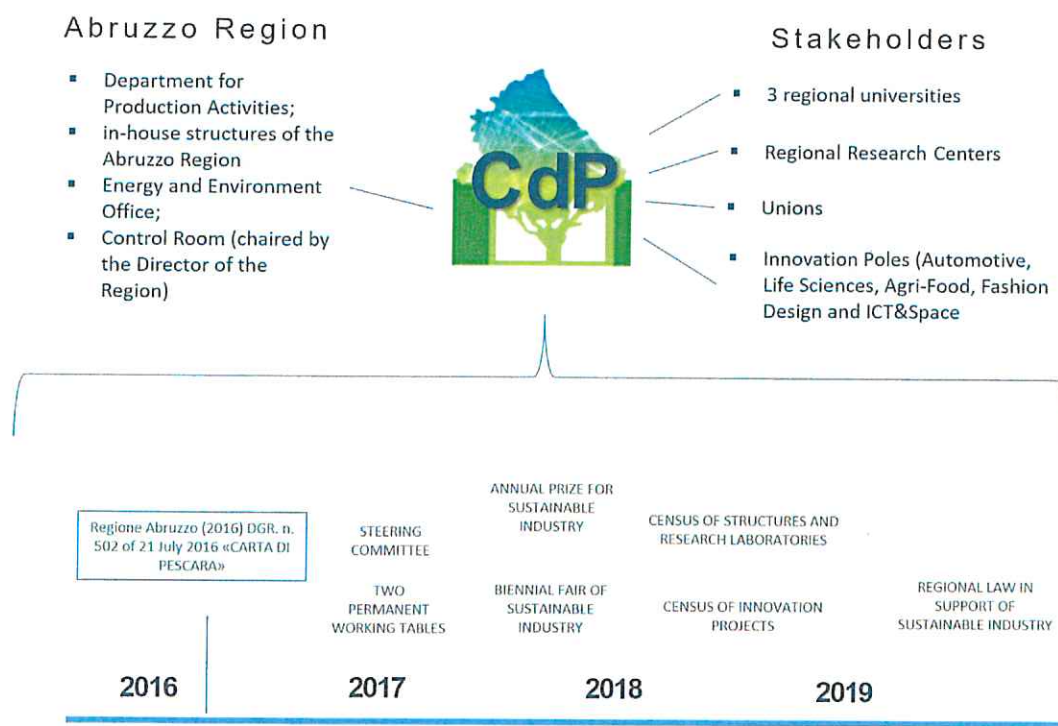


Figure 1. The path of development of the CdP and the main stakeholders involved

Discussion and Conclusion

The CdP can be considered a policy and local government tool, designed and developed to achieve the goals of circular economy and sustainable development, and, at present, it represents a concrete attempt to guide the change towards a regional model of circular economy.

It uses an open approach as any company operating in the Abruzzo Region can try to become a partner; it is immediate, as the relative web platform is managed directly by the regional offices, and at low cost, as no additional resources are needed to support and promote innovative and sustainable companies, using the funds made available by the EU.

At present, about 130 companies are officially registered on the CdP web platform, with different levels of affiliation: 12% advanced; 25% intermediate; 63% base and actively involved in circular economy-based processes; this can be considered a direct result of the initiative. Alongside it, it is worth noting some indirect results, such as: i) having stimulated companies to collaborate with each other and with universities and research centers (a foundation and an association were born from this collaboration in 2018 and 2019); ii) the possibility of orienting the European Regional Development Fund towards research programs that have given birth to innovative projects, making research projects admissible even outside the regional boundaries with effects on the regional territory.

Among the critical issues recognized, there is still a limited participation of small companies and a limited involvement of the regional training system. The future challenges will concern both the involvement of a growing number of small businesses by exploiting the experience of other (leading) companies that are already partners of the CdP to create an emulative and virtuous effect, and working with the regional training system in order to train professionals capable of operating in this new and evolving context.

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Organizations participating in the Symbiosis Users Network - SUN



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