



## **INTERREG EUROPE**

**FoodChains 4 EU:** Strengthening regional innovation policies to build sustainable food chains



## **ACTION PLAN**

### **EMILIA-ROMAGNA REGION**

#### **PROJECT PARTNERS**

- **Emilia-Romagna Region, Directorate General for Agriculture, Hunting and Fisheries**
  - **Università Cattolica del Sacro Cuore - Department of Agrifood Economics**

**30.11.2019**



# Contents

1. General information .....	3
2. Policy context .....	3
2.1. Name of the policy instrument(s) addressed .....	3
2.2. Further details on the policy context and the way the action plan should contribute to improve the policy instruments.....	4
2.2.1. Food sector and packaging in Emilia-Romagna .....	4
2.2.2. Strengths and Challenges: key findings emerged by the regional peer review.....	6
2.2.3. FoodChains4EU project and Emilia-Romagna Action Plan.....	7
2.2.4. Integration and complementarity with other Interreg Europe Projects.....	8
2.2.5. Rationale beyond the actions to be implemented.....	8
3. Details of the actions envisaged.....	9
3.1. ACTION 1: Improving Monitoring and Follow up of Project Results in the packaging sector.....	9
3.1.1. Relevance to the project .....	9
3.1.2. Lessons learnt from FoodChains4EU .....	10
3.1.3. Nature of the action.....	12
3.1.4. Stakeholders involved.....	13
3.1.5. Timeframe .....	14
3.1.6. Costs .....	14
3.1.7. Funding sources.....	14
3.2. ACTION 2: Creation of a sustainable food packaging platform .....	14
3.2.1. Relevance to the project .....	14
3.2.2. Lessons learnt from FoodChains4EU:.....	15
3.2.3. Nature of the action.....	16
3.2.4. Stakeholders involved.....	18
3.2.5. Timeframe .....	18



## 1. General information

- **Project:** FoodChains 4 EU - Strengthening regional innovation policies to build sustainable food chains
- **Partner organisation concerned:** Emilia-Romagna Region - Directorate General for Agriculture Hunting and Fisheries
- **Other relevant partner organisation involved:** Università Cattolica del Sacro Cuore - Department of Agrifood Economics
- Country: Italy
- **NUTS2 region:** Emilia-Romagna
- **Contact person:** Mario Montanari  
**Email address:** [mario.montanari@regione.emilia-romagna.it](mailto:mario.montanari@regione.emilia-romagna.it)  
Phone number: +39 051 5274684
- **Self-defined performance indicator:**  
Number of new agro-food projects that foster innovation towards sustainable packaging in the agro-food sector within structural funds (ERDF and RDP).

## 2. Policy context

The Action Plan aims to impact:	<input checked="" type="checkbox"/>	Investment for Growth and Jobs programme
	<input type="checkbox"/>	European Territorial Cooperation programme
	<input checked="" type="checkbox"/>	Other regional development policy instrument

### 2.1. Name of the policy instrument(s) addressed

- 1) Emilia-Romagna Regional Operative Plan of European Regional Development Fund 2014-2020 (ER ROP ERDF 2014-2020) investment priority 1b – Axis 1 “research and innovation”: Action 1.1 to increase the Research and Innovation activity of enterprises; Action 1.2 to strengthen the innovation system in the region and Action 1.1.4 to develop new technologies and services.
- 2) Emilia-Romagna Regional Rural Development Programme (RDP) - European Agricultural Fund for Rural Development - (EAFRD) – theme: competitiveness of the agricultural, agro-industrial and forestry system through actions to support the development of enterprises and generational turnover. Focus P2 “to enhance the profitability of farms and the competitiveness of agriculture in all its forms and to promote innovative technologies for sustainable management”; Focus P3 “to promote the organization of the food chain” (Focus areas P2A, P3A, P5C focusing on PACKAGING).



## 2.2. Further details on the policy context and the way the action plan should contribute to improve the policy instruments

### 2.2.1. Food sector and packaging in Emilia-Romagna

The Emilia-Romagna food sector brings together almost 28,000 local units with about 177 thousand employees, exporting 7.7 billion euros in 2018. The agricultural production value amounts to 4.7 billion euros. With respect to the national level, the region is highly specialized in several sectors, such as Meat and meat-based products (39% of the total national export in 2018), Agricultural machinery' (29%), Manufacture of dairy products (24%). Local products that are unique in the world, such as Parmigiano-Reggiano cheese, Aceto Balsamico di Modena, Prosciutto di Parma, Grana Padano, Mortadella and a series of other products of inestimable excellence are some of the items that form the culinary treasure map of Emilia-Romagna, strongly export-oriented. With 44 PDO and PGI products, Emilia-Romagna is one the first regions in Europe for number of quality local products with certified denomination of origin.

As concerns the regional Smart Specialisation Strategy, 2,761 R&D projects have been funded from 2014 to May 2019, with 1,054 million euros of total investments and 448 million euros of public funds. Of these projects, about 496 concern R&I projects, Innovative Operative Groups (GOI), infrastructures, startups, while the other projects concern productive investments and training for innovation. Main themes addressed by the projects are: integrated and sustainable value chain (477 projects), smart and green supply chain (164), innovation and sustainability in processes and products (102), nutrition and health (56).

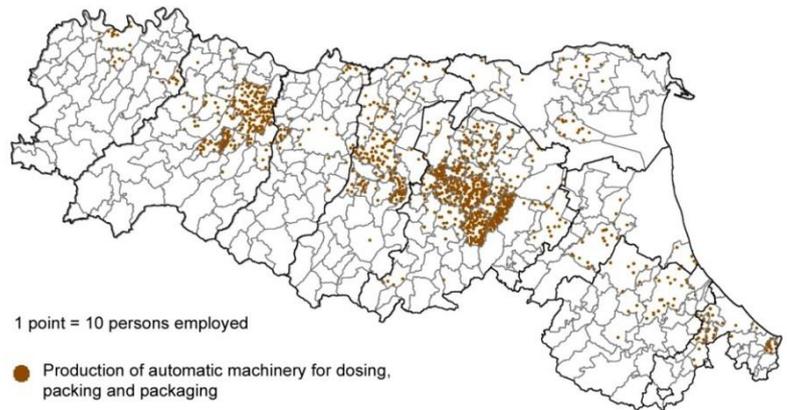
- **Focus on packaging**

In order to increase the presence and success on these international markets, both European and not European ones, packaging (primary, secondary and tertiary packaging) has been playing a very important role. The **packaging** division is an important production specialization in the Emilia-Romagna mechanical engineering cluster and numbers **899 local businesses with a total of 15,891 employees** (Source: Smail 2017); **53.2% of the Italian employees in the machinery for packaging sector are in Emilia-Romagna.**

Packaging division in Emilia-Romagna (source: Smail, June 2017)		
	Local businesses	Employees
Production of machinery for packaging sector	486	12,026
Repair and maintenance of machinery for packaging sector	57	126
Packaging services for third parties	356	3,739
Total	899	15,891

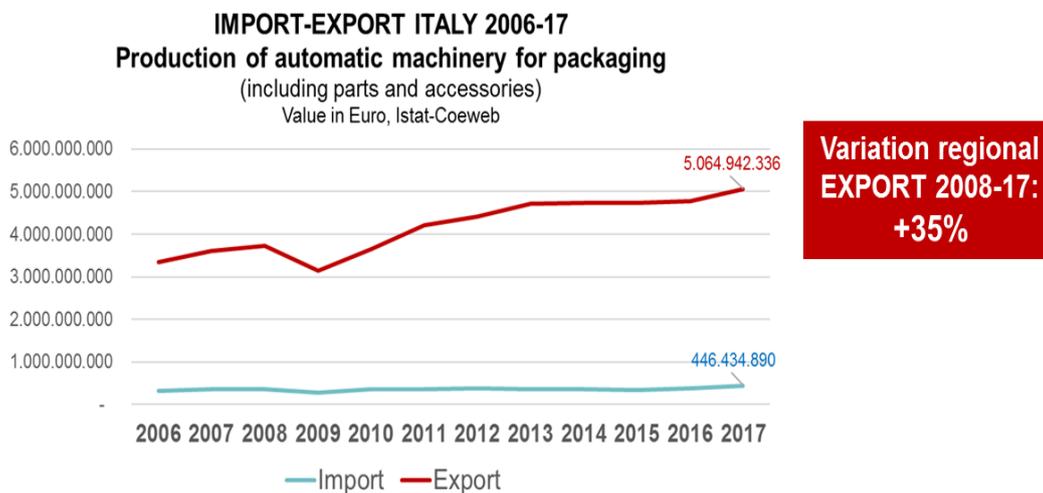


The highest **concentration of people employed** is in the province of Bologna, followed by Parma and Modena. Other districts are also in Reggio Emilia and Rimini (source: Istat-Asia).



In 2017 there are 424 joint-stock companies in the sector with a sales turnover of over 900,000 Euros, boasting a total turnover of about 4.61 billion € and a value-added of 1.67 billion €.

National exports of regional 'Machinery for packaging' boasts 5.06 Billion euro in 2017, +35% than the pre-crisis value in 2008.



The regional packaging sector is characterized by: **favorable business environment** connected to agriculture and food industry but with global perspective; for the regional agri-food, advantages related to **proximity and access to skills**; the high technological level favors **diversification processes** also outside the agri-food sector: besides tobacco/cigarettes, regional packaging is leader also in other areas such as pharmaceuticals.

**Sustainable packing is strategic for all food and beverage products** and it will become even more important in the future, due to the increasing attention that consumers and institutions are paying to this issue. Moreover, packaging is also a very important tool for communication with consumers.

**Future challenges** of the regional packaging sector concern: sustainability, safety, traceability, industry 4.0 applications. Several main regional packaging companies (e.g. IMA, Sacmi, Aetna Group) are in the partnership that led to the creation of the **Competence Center «Bi-Rex - Big Data Innovation and research Excellence»** proposed by the University of Bologna. The project (third on a total of 8 selected projects at national level) will support companies, in particular **SMEs, providing training and assistance on Industry 4.0**. The University of



Bologna is leading a **group of about 60 stakeholders**, including five regional universities, research organizations and **private entities**.

The **Cipack laboratory** - part of the High Technology Network - is focused on the research concerning different packaging solutions related to food.

### Some leaders in the regional Packaging Industry

Company	Description
<b>I.M.A. INDUSTRIA MACCHINE AUTOMATICHE S.P.A.</b>	Produces packaging solutions, mainly with IMA SAFE S.R.L. and IMA FLAVOUR S.R.L for the Pharmaceutical & Nutraceutical, Cosmetic & Other, Tea & Coffee sectors.
<b>OCME / Robopac Srl</b>	Company, which specializes in the Beverage industry. It supplies complete production lines for Beer, Mineral water, Soft drinks, Wine & liqueurs. It also focuses on FTC (Food, Toiletries and Chemicals) for which it supplies filling systems for viscous liquids, packaging and palletizing systems.
<b>G.D. SPA</b>	Leading international manufacturer of machines to produce and package cigarettes (maker and packer).
<b>SACMI</b>	Produces a complete range of automatic machinery for labelling glass, plastic and metal containers for the beverage, food, detergent, pharmaceutical and packaging sectors; sorting lines, packaging and palletizing for the ceramic industry; refilling machinery.
<b>MARCHESINI GROUP</b>	Produces machines for: cosmetic labelling, phial labelling, flacons, thermoformers, wallets, cartoners, vertical type cartoners, Wrapping & Overwrapping, Case packing & Palletizing.
<b>ACMA Spa</b>	Designs and manufactures automatic packaging machine for products like: industrial bakery, confectionery, detergents and soaps, high-value products or dense/foaming, food and beverages.
<b>AETNA GROUP S.P.A.</b>	Produces and sells on an international level wrapping machines for fully automatic stretch film packaging, shrink wrappers, shrink wrapping machines with film thrusting systems, wrap around case packaging, taping machines.
<b>TETRA PAK PACKAGING SOLUTIONS S.P.A.</b>	Produces: containers, treatment systems (for milk and dairy products drinks, cheese, ice cream, convenience foods), refilling machines, distribution systems, assistance.

### 2.2.2. Strengths and Challenges: key findings emerged by the regional peer review

The Peer Review elaborated by the FoodChains4EU project in Emilia-Romagna identified several Strengths and Challenges relating to the packaging sector and organized in two main thematic areas: cooperation and innovation.

#### • COOPERATION AMONG RESEARCH INSTITUTIONS, PACKAGING AND FOOD COMPANIES

##### Strengths

- good example of cooperation among food producers, retailers, packaging industry (e.g.: CPR system)
- large companies have good cooperation with universities in research projects
- the students are encouraged and supported by companies to develop their licenses and master theses
- support to the consortiums from the regional government by providing funds for the agri-food sector
- existence of triple-helix clusters: education and research, companies, regional authority (Agri-food Cluster, ART-ER, packaging cluster)
- well-developed cooperative system at regional level



### **Challenges**

- access to support for SMEs from the regional authorities
- identification of the companies which are not involved in the research and encouraging them to be engaged
- ensuring information flow transparently to all the stakeholders
- identifying consumer expectations, demands from the local and external markets
- complying with the dynamic changes of legislation related to packaging materials

### **• INNOVATION IN SUSTAINABLE PACKAGING OF HIGH QUALITY FOOD**

#### **Strengths:**

- clear interest of agri-food businesses in circular economy and environment sustainability
- innovative approaches for active and sustainable packaging
- intensive research activity in universities with significant results
- large companies have good cooperation with universities in research projects
- extensive knowledge in the region on packaging equipment and materials
- both companies and research institutions have interest for sustainable innovation in the food packaging
- well-developed infrastructures for innovation: research laboratories, innovation centres, high technology networks

#### **Challenges:**

- universities perform very good scientific research but they are often long term activities, whereas SME's are probably looking for short term practical solution; there is a gap between fundamental and applied research
- limited consumer knowledge in relation to innovation in food packaging
- more efficient correlation between: packaging technologies, food manufacturing and waste management
- limited market demand for sustainable packaging
- SMEs not involved like big companies

### **2.2.3. FoodChains4EU project and Emilia-Romagna Action Plan**

The aim of FoodChains 4 Europe project is to improve the implementation of regional policies that stimulate the delivery of innovation to create sustainable food chains both on financial and technological aspects. The growing European population has ever-higher expectations related to food quality and sustainability in terms of processing, packaging, storage, waste reduction, distribution and retail. Innovation plays a key role in meeting these needs and fostering sustainable food chains fit for the future. Fostering innovation in the food chains contributes to the environmental and social sustainability through increased access to high quality food.

The Emilia-Romagna Region aims at improving the relationships among SMEs of food chain and the R&D sector, with the goal of enhancing the competitiveness and sustainability of its food chains. Both policy instruments ROP



ERDF and RDP are addressed to innovation, therefore their improvement means a contribution to the optimal and comprehensive use of measures included in the two programmes, so to obtain an effective integrated policy approach, already adopted by Emilia-Romagna region. This also means:

- 1) improving the **monitoring and follow-up** of operations financed in terms of impact on sustainability and innovation in the agri-food sector, which is strategic for the E-R economy (S3 Emilia-Romagna Smart Specialization Strategy).
- 2) Improving **support for participation in calls for proposals** in relation to strategic priorities and with particular attention to: innovation, skills, integration within the single supply chains and among different supply chains, access for SMEs.
- 3) Follow up and support on a transversal theme investigated by the project, the **food packaging**.
- 4) **Monitor and improve integration between funds and within complementary measures of the same program** (support for vocational training and skills, support for demonstration activities and information actions, investments, operational groups of the European Innovation Partnership, support for pilot projects for the development of new products, practices, processes and technologies in the agricultural and agro-industrial sector)

#### 2.2.4. Integration and complementarity with other Interreg Europe Projects

Emilia-Romagna Region - Directorate General for Agriculture Hunting and Fisheries is partner in two Interreg Europe projects both having as objective the innovation on agri-food and food chains and on funds harmonization: STRING STrategies for Regional INnovative Food Clusters and FOODCHAINS 4 Europe. The Directorate will work on two Action Plans with different purposes although integrated. The Action Plan of STRING project has the purpose to influence the way policy instruments are managed by better addressing and fine-tuning the call for proposals dedicated to innovation and improving the ways projects are selected and fostering the cooperation between regional directorates. FOODCHAINS instead addresses funds integration in terms of monitoring, follow up and continuity of projects **focusing on a specific and transversal theme – packaging** – also including themes such as competences and training and partnership creation. Moreover, the Action Plan of a third Interreg Europe project INKREASE – Innovation and knowledge for Regional Actions and SystEms managed by Emilia-Romagna Region intends to act on the follow-up of the ROP ERDF Axis 1. FOODCHAINS will consider results on agri-food sector obtained and monitored by INKREASE trying to influence the RDP supply chain projects.

#### 2.2.5. Rationale beyond the actions to be implemented

Action Plan development has been fed by exchange activities of FOODCHAINS, such as the peer review recommendations, the learning events activities (seminars, presentations, business visits, etc.) and the thematic inspiration gained from three Good Practices dedicated to packaging innovation and collaborative research. Good Practices inspired the definitions of two actions centred on packaging sector in terms of innovation and active permanent collaboration among universities, research, public authorities and businesses. The purpose is to bring



out needs to which answers that are more specific can be given through the policy instruments with particular reference to ROP ERDF and RDP EARDF.

However, actions to be implemented in the next two years reflects the range of possibility remaining available as the main policy instruments for the current multi-annual budgeting period have been spent up. That is the reason why we decided to address to ROP ERDF, as initially planned, only in terms of follow up and monitoring and to include RDP EARDF for a system action. The actions planned will thus contribute to increasing the integrated use of the funds.

### 3. Details of the actions envisaged

#### 3.1. ACTION 1: Improving Monitoring and Follow up of Project Results in the packaging sector

##### 3.1.1. Relevance to the project

The Emilia-Romagna Region is at the top of the list for investments in the agri-food sector. It has already funded 2,761 R&D projects in the period 2014-May 2019. 448 million euro of public funds generated investments for 1,054 million euros. Among the main themes, we find sustainable and precision agriculture, technologies for safety and product quality and consumer health.

The main lines of action relevant to the FoodChains4EU project are three: operational innovation groups (93 projects), projects to support the integration of agri-food chains (51 on the RDP EARDF), projects of the agri-food sector and of the packaging sectors on the ROP ERDF (179 + other projects relating to packaging to be identified).

Emilia-Romagna has as its objective the cooperation between agricultural producers and the knowledge system to ensure a sustainable and forefront agriculture at the service of the consumer. In addition to this data, the monitoring of the S3 Strategy highlighted a great propensity of regional companies to innovate with a 38% of the amount of the total investments belonging to the agri-food system (in the period 2014 – May 2019). This trend must therefore be consolidated to strengthen an integrated system of technical, scientific and organizational support that improves the distinctiveness of regional productions, together with their competitiveness and sustainability. Moreover, considering that in the agriculture sector the tendency to innovate is more widespread in larger companies, SMEs should be encouraged and supported towards innovation paths and access to supply chain projects. The connection with research, universities and continuing education that allows the acquisition of knowledge and skills is therefore relevant.

The FoodChains4EU project is highly focused on innovation and integration in the supply chain, through the packaging sector. The project activities identified the packaging as a strategic sector. The packaging division is an important production specialization in the Emilia-Romagna mechanical engineering cluster and numbers 899



local businesses with a total of 15,891 employees (Source: Smail 2017), representing 53.2% of the Italian employees in the machinery for packaging sector.

### 3.1.2. Lessons learnt from FoodChains4EU

#### 1) Emilia-Romagna Peer review and recommendations from other partners

Recommendations on Innovation in sustainable packaging in high quality food:

- **Support SMEs to comply with the EU regulations in the field of food packaging sustainability** by providing them some incentives: beneficial points in the evaluation criteria for project to be funded by operational programs or additional points for public procurements
- Better correlation between the Rural Development Program and Regional Operational Program for the next programming period
- Provide funding and investments for food packaging waste reduction schemes
- Encourage the companies to adopt circular economy and new solutions for **sustainable packaging**
  - Increase the ratio of **recycled materials** inside the **new packages**
  - Addressing the dual challenge of food waste and plastic waste through the **reduction of single-use plastic packaging and scaling up reusable packaging**
- Facilitate SMEs to **access to training**
- Adjust the **procurement procedures** to stimulate sustainability and regional innovations.

#### 2) Project Partner Peer reviews, Interregional Learning Events and Emilia-Romagna Stakeholder Group Meetings

Inspiration and inputs came from the Peer Reviews and interregional learning events of project partners, such as:

- Peer review Romania - Maramures County, that examined innovative methods of selling and packaging food, including traditional ones
- Peer Review Greater Manchester, that is also related to (sustainable) packaging, even if not directly, in particular through the Priority “Food Waste – reducing waste in the supply chain”
- The conference FOOD 2030 in Plovdiv highlighted the importance of understanding the complexity of food systems and the implications for R&I.
- In the first interregional event in Plovdiv the visits to the University of Food Technology and to food companies also provided a better understanding on creation, marketing and distribution in high quality innovative food products

Important inputs and suggestions have also emerged from the Emilia-Romagna Stakeholder Group meetings, thanks to the participation of subjects interested in packaging innovation (see section 3.1.4)



### 3) Good Practices

National Academy of Packaging, Bulgaria: Good Practice to support cooperation among the research institutions, packaging & food companies

- National Academy of Packaging is an association registered under the Non-Profit Legal Entities Act in 2001. The University of Food Technologies, Plovdiv, NIERA Center, Sofia and Agricultural University, Plovdiv established it. The membership of the academy includes also food-packaging companies such as ITD, Skepter, Cleo, Velpack, TUF Nord, Almi Test, UFT, Agricultural University, Novipack 2002 and BM Commerce. The Academy is a co-founder and member of the European Packaging Institute based in Berlin that includes also companies from Emilia-Romagna. Since its foundation, it has actively collaborated with the magazines: Tara and Packaging - Russia, Propak, Food, Regal, Packaging and Printing, Food Industry and Trade, etc. It maintains contacts with a number of organizations working abroad in the field of packaging. Objectives of the organization is the development and promotion of packaging science, technology and techniques; development and promotion of education in the field of packaging; protection of the environment; uniting the efforts of science, business and government to increase the competitiveness of Bulgarian packaging and packaged goods; overlapping and development of related services and support activities, ensuring the most effective implementation of the goals of NAP and protecting consumers.

Technical University of Cluj-Napoca, Department of Chemistry and Biology, Baia Mare, Romania: International Projects on active food packaging - SMARTPACK, GraFOOD, STRUCT-PHO-PACK

- SMARTPACK project (Smart functions of packages containing Nano-structured materials in food preservation) was developed by a consortium consisted in Technical University of Cluj Napoca – Romania, Babes-Bolyai University Cluj Napoca (Romania), ICA research and development SRL Bucharest Romania, Warsaw University of Technology Poland and S.C. L&G Consulting SRL Dej Romania. The main objective was to elaborate Nano - packaging solutions fit for a number of food product categories displaying preservation properties definitely superior to those currently in commercial use. In this end, nanomaterials as Au/TiO<sub>2</sub>, Ag/TiO<sub>2</sub>, Pt/TiO<sub>2</sub> xerogels and aerogels of Ag/TiO<sub>2</sub>-SiO<sub>2</sub> were prepared, characterized and included in the polypropylene and paper-based packages. Their efficiency in the prolongation of shelf life of bakery products, pastries, fruits and fresh fruits juices was investigated and the best packages solution for each type of food was selected.
- STRUCT-PHO-PACK project (STRUCTural and PHOtochemical investigations of a Nano sized composite as active component of paper based PACKage designed for food applications; 2017 - 2018) involved two research teams coming from Technical University of Cluj Napoca Romania (coordinator PhD. Anca Peter) and Dubna Russia. During the project papers coated in chitosan, chitosan-TiO<sub>2</sub> and chitosan-Ag/TiO<sub>2</sub> were prepared and their efficiency in the preservation of nut kernels was investigated.
- GraFOOD project (Active GRAPhene based FOOD packaging systems for a modern society) has the main objective to develop a pilot-scale prototype of active food package based on paper and PLA film respectively, modified with graphene oxide activated by probiotic bacteria and by nanostructured Ag and



TiO<sub>2</sub>, respectively. The partners of the consortium are Technical University of Cluj Napoca Romania, SC Ceprohart SA Braila Romania, National Institute of Chemistry Ljubljana Slovenia, Andaltec Spain, University of Camerino, Italy, Synbiotec Italy

### 3.1.3. Nature of the action

Action 1 is aimed at improving the monitoring and follow up of ROP ERDF/RDP EARDF projects results focusing on the packaging sector, especially as concerns sustainability, innovation and horizontal/vertical integration of the food chains. Indeed, the packaging sector allows analysis both along the food value chain and the connection with other sectors/value chains. In Emilia-Romagna, the packaging sector (along with agricultural machinery) is the main connection between agri-food and mechanical engineering sectors. For this reason, also projects related to packaging in the mechanical engineering sectors (e.g. manufacturing of machinery for packaging) will be included in the monitoring if a relation with the agri-food chain will be found.

The monitoring and follow up activity will be aimed to analyze projects to better orient agri-food SMEs towards integration with other companies and stakeholders of the food value chain and towards the market needs. A first screening of the projects will identify those related to packaging. Then the action will select those experiences that can be valorised in a value chain approach.

Main specific issues and thematic areas to be considered will be environmental/social/economic dimensions of sustainability and circular economy; collaboration among SMEs and with other stakeholder (universities, research lab, etc.) to increase innovation; local/global chains, internationalization and access to markets. A narrow choice of the issues will depend on the contents of the selected projects. The results will be shared with the Clust-Er Agrifood and Clust-Er Mech, regional public-private partnerships including companies, research centres and laboratories, universities and training institutes. Both selected good practices show that collaborative research brings innovation and responsiveness to the needs of businesses. This mainly in a sector such as packaging that has different issues to focus in, namely: product innovation, sustainability, technology, consumers, marketing.

The monitoring and follow-up activity envisaged by action 1 will significantly contribute to the planning 2021-2027 with reference to the integration of funds, coordination of tenders, closer collaboration between Managing Authorities and ability to target actions in response to emerging needs. All this in particular referred to a relevant sector - such as packaging - considered strategic to promote innovation and competitiveness of agri-food SMEs.

The monitoring and follow up of project results in the packaging sector is also the basis for effectively implementing action 2.

#### **Monitoring will be carried out with the following steps:**

- Selection of ERDF and RDP innovative projects related to the packaging sector.



- For each selected project, a direct or indirect relation with the agri-food sector will be checked. Projects with no relation with agri-food will not be included in the monitoring activity.
- Classification of the projects dividing research activities at an experimental stage and R&D activities already implemented.
- Classification of the selected projects according to the main thematic areas for which they can represent a contribution (e.g. Sustainability, innovation, food chain integration). For each thematic area, sub-categories of activities could be used to better specify the type of contribution given by the project
- Identification of linkages between agriculture and industry
- Identification of specific skills and technologies required for implementation
- Identification of required diffusion, demonstration and transfer activities (for experimental projects).

### 3.1.4. Stakeholders involved

- Clust-Er Agri-Food (<https://agrifood.clust-er.it/>)
- Clust-Er Mech (<https://mech.clust-er.it/>)
- Companies, research organization and training institutes involved in the projects to be monitored
- Regional Universities
- Regional government – Agri-food Department – Productive Activities Department
- Inter-branch organisations (Tomato, Pork)
- Representatives of the cooperative system

#### Role of stakeholders.

- **“Clust-Er Agri Food” and “Clust-Er Mech”** are regional Public-Private Partnerships involving companies, laboratories and training institutes, also operating in the packaging sectors. Their knowledge and expertise it is very relevant to the project and so the results of the monitoring activity will be shared with them. They also represent companies from different steps of the value chain and are able to give value to the integration among business and research.
- Besides that, several **companies, research organizations and training institutes involved in the projects** to be monitored may be also part of the “Clust-er”. These actors are involved in the action because their project will be included in the monitoring activity.
- **Regional Universities** are part of the innovation and knowledge environment. One of them (University of Piacenza) is already partner of the project, but all of them could be involved to share the results of the monitoring activity or improve the approach.
- The **Regional government** (Agri-food Department – Productive Activities Department) is directly involve in the activity because it manages the policies that have supported the projects to be monitored.
- **Inter-branch organizations** and **Cooperative** can be involved to better understand the role of packaging in the integration between different branches of the value chain, in order to better orient the monitoring activity.



### 3.1.5. Timeframe

#### **January – March 2020**

Selection of ERDF/ EARDF innovative projects related to the packaging sector.

#### **March – July 2020**

Classification of the projects.

#### **August - December 2020**

Identification of: linkages between agriculture and industry; skills and technologies required for implementation; required diffusion, demonstration and transfer activities (for experimental projects).

#### **Milestone: 1 analysis report (December 2020)**

### 3.1.6. Costs

Fixed staff costs:

10% Manager in charge of EU Cooperation - Emilia-Romagna Region - Directorate General for Agriculture, Hunting and Fisheries

20% 1 technical staff working on call for proposals and evaluation

20% 1 Technical Action coordinator

### 3.1.7. Funding sources

The action is going to be covered by regional and university internal resources.

## **3.2. ACTION 2: Creation of a sustainable food packaging platform**

### 3.2.1. Relevance to the project

While Action 1 monitors innovation projects that have involved agri-food packaging on the structural funds, Action 2 aims at working on governance by consolidating a permanent working group that should chair the integration between funds, based on the needs of businesses and the theme of sustainable packaging.

The platform - that is intended to be consolidated as an output - derives from project's stakeholders group and it will be integrated with existing structures. This group will work to discuss and define innovative strategies to boost sustainable packaging, including the creation of an incentive system to be applied in tenders/measures.

This action is mainly inspired by the Good Practices of Manchester "Business Growth Hub", the experience of the National Academy of Bulgaria and peer review recommendations on cooperation among institutions, packaging and food companies.



### 3.2.2. Lessons learnt from FoodChains4EU:

#### 1) Peer review and recommendations from other partners

The Final Report of Peer Review in Emilia-Romagna carried out for the FoodChains4EU project highlighted the high relevance of the packaging sectors and identified several recommendations concerning cooperation among institutions, companies and other stakeholders

- **Recommendations on cooperation among research institutions, packaging and food companies:**
  - Consultancy, training and financial support for SMEs to facilitate their access to research
  - Increased cooperation between private industry, academic research and government to identify key areas of maximum impact in sustainable packaging and associated technology
  - More transparent communication in the food chain
  - Organizing a linking pin between SMEs and universities
  - Stimulate cross-over between the Agri-food sector and other sectors.

Inputs and inspirations came also from Project Partner Peer reviews, Interregional Learning Events and Emilia-Romagna Stakeholder Group Meetings

#### 2) GOOD PRACTICES

The good practice GC Business Growth Hub in Manchester showed how a community of experts could be greatly helpful to respond to the indications emerged by the Peer Review for the packaging sector. The National Academy of Packaging in Bulgaria showed how cooperation between companies and research system can improve exchange of knowledge and information supporting also innovation and sustainability. The issue of reducing the food waste - tackled by the “Real Junk Food Project Café Manchester” - it is also related to the packaging sector. The Oldham Council Education Catering Team showed how food quality and education can be related providing healthy nutrition to the students with affordable costs.

- **GC Business Growth Hub – Manchester**

Growth and start up lead - a community of specialists that help businesses across Greater Manchester to realise their ambitions. The community support businesses at all stages of their growth journey with a broad range of services (e.g. one-to-one and peer-to-peer business support, events, specialist programmes, training, funding). Funding comes from a variety of sources, including the European Regional Development Fund (ERDF). Local Authorities, Universities, Local Enterprise Partnerships, private providers are involved.

- **National Academy of Packaging - Bulgaria**

The Good Practice of the National Academy of Packaging, Bulgaria supporting cooperation among the research institutions, packaging & food companies showed that one effective form of cooperation between business and Academy are the seminars, held annually on specific topics, often set by the business and



dealing with problem solving. During the seminars the latest news in the sector are shared, which includes new legislative initiatives, regulatory requirements to be introduced or problems for producers of packaging materials, packaging technologies, new materials and machines. Other events are also conferences, workshops, training of personal, summer schools and others. The benefits for both academia and business is the exchange of knowledge and information through these events. Academia and business are participating in joint projects to solve specific problems. The experts from the Academy are providing consultancy to the companies on packaging related issues.

- **Real Junk Food Project Café Manchester**

The Real Junk Food Project is a campaign that operates in various forms in towns and cities across the UK to intercept surplus edible food waste. In Greater Manchester, this project provides local catering from surplus food across the city-region. Real Junk Food Manchester is a not-for-profit community interest company that has established a pay-as-you-feel café in central Manchester. The project intercepts surplus food that would otherwise be wasted and transforms it into healthy food for everyone and anyone to enjoy. While the café has a system whereby customers can pay as much or as little as they like, the directors and staff incorporate inventive means to fundraise to support their work, such as holding special “fine dining” evenings. Besides fighting poverty, the project is aimed at limiting environmental impact of food waste.

- **Oldham Council Education Catering Team**

Oldham Council Education Catering Team was awarded by “The Gold Food for Life Catering Mark” for the quality and provenance of the meals served. This service provides daily 17,000 school meals to the Borough of Oldham with a team of 432 locally employed people consisting of Cook Supervisors, Catering Assistants, Area coordinators and Manager. They aim to feed young people in Oldham excellent with high quality nutritious and affordable food. There has just been a 10 pence increase in meals after a hold on price for 9 years. The service offers different three-week menus cycle such as vegetarian, halal and non-meat catering for special dietary requirements.

### 3.2.3. Nature of the action

In Emilia-Romagna, several actors have skills and/or play a role related to sustainable packaging in the agri-food sector. The creation of a “sustainable food packaging platform” coordinated by the Regional Government to discuss and define innovative strategies to boost sustainable packaging will strengthen synergies among the industrial and agricultural stage of the supply chain. The platform is not conceived as a temporary meeting but as a stable stakeholders’ round-table that will meet at regular intervals and aims to be a reference point in terms of innovation and sustainable packaging.

General objectives of the platform refer to support companies that adopt sustainability policies concerning agri-food-packaging, that is related to the sustainability and circular economy of the whole food chain. The Emilia-



Romagna region also aims at becoming the first “plastic free” region in Italy and the platform will support the achievement of this objective.

This platform will provide indications and recommendations concerning sustainable packaging in agri-food, in order to support the Regional Government in the elaboration of development policies that will also influence the next programming period, allowing stronger integration between ERDF innovative projects and RDP supply chain. The platform will help to identify specific selection criteria and thematic areas related to sustainable packaging for open calls for proposal to be issued by both the ERDF and RDP regional funds. Moreover, the same working group will create opportunities of collaborations among the actors involved, strengthening integration along the value chain and, following the inspiration given by the Bulgarian National Academy of Packaging, will organize thematic events with a focus on innovation and sustainable packaging related issues. The first event will be organized in project’s phase 2 and then they will continue even beyond the end of the project. The first annual event will be organized in project’s phase 2 and then in the years following the end of the project.

Regarding the integration between ERDF and RDP, the latter includes many packaging-related measures and this will also be a work area for the table in order to test the incentive system created for the projects in open tenders financed by the structural funds that promote innovation towards sustainable packaging in the agri-food sector.

Among the measures of the RDP 2014-20 related to packaging we will consider:

- 1.1.01 - Support for professional training and acquisition of skills
- 4.1.01 - Investments in agricultural companies in an individual and system approach
- 4.2.01 - Investments aimed at agro-industrial companies in an individual and system approach
- 4.2.02 - Investments for agro-industrial companies with financial instruments
- 6.4.02 - Diversification of agricultural activities with plants for the production of energy from alternative sources
- 16.1.01 - Operational groups of the European partnership for agricultural productivity and sustainability
- 16.2.01 - Support for pilot projects and for the development of new products, practices, processes and technologies in the agricultural and agro-industrial sector
- 16.9.02 – Promotion and implementation of food education services and education on sustainability

Finally, after the test, the table will have the task of monitoring the number of new agri-food projects that foster innovation towards sustainable packaging within structural funds (ERDF and RDP).

The performance indicator is ambitious if we consider the short time available compared to the closure of the current programming of the funds. Anyway, also in the case of partial result, the work will still be useful to channel forces and synergies towards the growth of companies in a specific sector that affects consumers. In line with FoodChains objective, the system of government and the instrument of measurement created will foster SMEs growth and increase the access to high quality food and it will be put to value for the 2021-2027 strategy.



### 3.2.4. Stakeholders involved

Many of the actors to be involved in the sustainable food packaging platform have been already identified during the project and among the stakeholders involved in Action 1 of the present AP. They are Agri-food and Productive Activities Departments of the Regional government, the associations Clust-Er Agri-Food and Clust-Er Mech, the companies, regional universities, research organization and training institutes involved in agri-food projects related to packaging.

Other relevant actors to be involved are:

- Agrifood section of the “Research and University Committee” (CRU - Consulta Regionale dell’Università)
- Regional PDO and PGI Consortiums
- Bi-Rex - Big Data Innovation and Research Excellence: Competence Center coordinated by the University of Bologna with a group of about 60 stakeholders including five regional universities (Bologna, Ferrara, Modena-Reggio, Parma, La Cattolica), organizations part of the regional research system such as CINECA, CNR, ART-ER, IOR, INFN as well as companies among which IBM, Philip Morris, Siemens, Manz Ag and many other regional excellences

#### The role of stakeholders

- **All the stakeholders involved in the Action 1** will be part of the platform, becoming active members of the initiative.
- **Also additional stakeholders** (CRU, PDO/PGI consortiums, Bi-Rex) can be directly involved or provide actors that are part of their organization to be involved in the platform set up by this activity.

### 3.2.5. Timeframe

#### September 2020 – March 2021

Networking activities to involve all the relevant stakeholders in the platform.

Organization activities for the events on sustainability in agri-food packaging.

Planning of the activities of the platform.

Formalization of the platform and first meeting.

#### April - December 2021

First event on sustainability in agri-food packaging.

Second meeting of the platform

Elaboration of the incentive system for projects funded by Structural Funds to foster innovation towards sustainable packaging in agro-food.

Selection of calls for proposals in which the incentive system can be tested.

Measurement of the performance indicator.

#### Milestones:



- Formalized platform focused on innovation and sustainable packaging issues
- Incentive system for projects funded by Structural Funds to foster innovation towards sustainable packaging in Agro-food
- 1 event on innovation and sustainable packaging issues
- Performance indicator measurement.

### 3.2.6. Costs

Fixed staff costs:

10% Manager in charge of EU Cooperation - Emilia-Romagna Region - Directorate General for Agriculture, Hunting and Fisheries.

30% 1 technical staff

20% 1 Technical Action coordinator.

### 3.2.7. Funding sources

The action is going to be covered by regional and university internal resources.

## 4. Risk factors

Regional elections will be on January 26, 2020; therefore, some unexpected changes/actions could take place. However, considering that main relevant actors and stakeholders were involved since the beginning of the project, they were informed steps-by-steps and they contributed to project's achievements, included Action Plan definition, we are confident that the activities will be carried out and in any case, even if with required adjustments, in respect of the main objectives.

**Date:** 30.11.2019

**Name of the organisations: :**

Emilia-Romagna Region - Directorate General for Agriculture Hunting and Fisheries  
Università Cattolica del Sacro Cuore - Department of Agrifood Economics

Signatures of the relevant organisations:

Dott. Mario Montanari –Emilia-Romagna Region

Prof. Gabriele Canali – Cattolica University