



Action Plan of the Corsica Channel

«CIRCULAR STRAIT»

Pathway to a circular economy in the coastal and insular areas of Corsica Channel

Coordinated by the Chamber of Commerce of Maremma and Tirreno and
the Chamber of Commerce of Bastia and Haute Corse

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Part I – General information on the project

Project: PASSAGE (Public Authorities Supporting low-carbon Growth in European maritime border regions)

Duration: 01.04.2016 - 31.03.2020

Partner organisation: Chamber of Commerce of Maremma and Tirreno and Chamber of Commerce of Bastia and Haute Corse

Country: Italy and France

NUTS2 region: Tuscany and Corse

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Part II – Policy context

- The Action Plan aims to impact:
- Investment for Growth and Jobs programme
 - European Territorial Cooperation programme
 - Other regional development policy instrument

Name of the policy instrument addressed : Interreg V A Italy – France (Maritime)

The programme (2014 – 2020) intends to promote entrepreneurship, a safer environment, the valorisation of natural and cultural resources, sustainable mobility and social inclusion through economic development. At the same time, it aims to address climate change issues, connection of secondary and tertiary nodes to the TEN-T network and joint training schemes in the cross border area. Actions in these priorities areas have to be complemented by efforts to foster closer and more effective co-operation of administrations.

The programme focuses on four priorities:

- Promotion of enterprises' competitiveness in the cross-border priority sectors
- Preservation and valorisation of cultural and natural heritage and risk management
- Improving territory accessibility and sustainability of ports' activity
- Improving employment opportunity and social inclusion through economic activity

Some of the expected results consist in:

- 1000 enterprises receiving support
- 57 additional public institutions adopting strategies to tackle environmental risks
- 10 additional joint management actions implemented for the preservation and the promotion of natural and cultural heritage
- 6 additional action plans designed for noise pollution reduction in ports of the cross-border area
- 9 additional action plans to implement measures towards a less pollutant maritime navigation
- 145 less maritime incidents in the cooperation area.

Part III – General information on the actions

1 – INTRODUCTION

There is a close relationship between the use of natural resources and climate change. Looking at the figures of the production in 2010, an estimated 73 billion tonnes of resources were extracted worldwide in 2010, global greenhouse gas (GHG) emissions stood at about 50 billion tonnes and roughly 10 billion tonnes of global (industrial and municipal) waste was generated. This means that more than 80% of annual raw material inputs were returned to the environment in the form of emissions and waste (with the rest largely representing additions to stocks, e.g. in the form of buildings and infrastructure). Therefore, the quantity of raw materials used in industrial processes is strictly connected to the energy required and hence GHG emissions. The latter are emitted in all stages of the product lifecycle: extraction, production, consumption and waste management. The

production of raw materials, for example, accounts for roughly 19% of global GHG emissions and the waste sector for another 3%. Reducing global GHG emissions by at least 60% by 2050 compared to 2010 in order to limit global warming to “well below 2°C above pre-industrial levels” (as stipulated in Art. 2 of the new Paris Agreement) will thus require more than a shift to low-carbon and renewable energy sources. Improved resource efficiency, greater recycling and re-use, as well as an absolute reduction of raw material use must become key elements of climate policy in the context of a circular economy. The potential effects of these measures on climate change mitigation are substantial. The circular economy is high on the EU policy-making agenda and during last years It is increasingly recognised as both a necessity and an opportunity, offering long-lasting economic, environmental and social benefits. Even if the debate on circular economy emphasises the relevance of waste management (comprises water), issues like social innovation and sharing economy to maximize repair and re-use of materials and resource efficiency have a prominent position in the EU strategy aimed at circular economy. The Ellen MacArthur Foundation, the organisation that has the aim of accelerating the transition to the circular economy, estimates that the transition to a circular economy in three of Europe’s largest and most resource-intensive value chains (mobility, food and the built environment) could decrease CO2 emissions in the EU by 48% by 2030 and 83% by 2050, compared to 2012 levels. Reaching the long-term EU GHG emissions targets will require a more comprehensive approach to the full set of policies on resource use. This approach needs to include the setting of a headline resource use target to prove political commitment and streamline action towards a more sustainable use of natural resources in Europe. Setting a headline target of reducing resource use clearly means to link EU climate change policy with the circular economy agenda.

This political linkage between climate change and circular economy could support the sustainable development of city-port territories, given the current operational and physical limits which affect the construction of new and efficient ports also in terms of environmental performance. Reducing carbon footprint and shifting towards circular economy in city-port territories need a collaborative approach between public and private stakeholders in order to anticipate emerging needs and opportunities of environmental sustainability. Indeed, in addition to the traditional port network, a new and functional cooperation between several and different stakeholders has to be established in order to link the environmental issues with the maritime activity itself, due to the nature of flows: flow of tourist people, flow of truck of goods RoRo.

A more participated and collaborative approach to the management of the sustainable development of maritime and marine areas and their environment is nowadays the unique lever of competitiveness for coastal and insular territories.

2 – BACKGROUND

2.1 Lessons learnt from the project

During the first phase of PASSAGE project the partners have discussed about the stakes to face in maritime border areas to encourage low-carbon transition and mitigation of climate change. These issues concern any territory in Europe but they present some specificities for maritime cross-border areas because of the combination between their coastal (i.e. risks of marine submersion linked to the rise of sea level) and border (i.e. obstacles linked to administrative, cultural or language differences) dimension.

Despite the criticalities and difficulties to be addressed, the project has stated the importance of cooperation to solve topics that could not be faced on our own, because they have a cross-border impact (such as maritime transports; tourism; enterprise competitiveness; coastal monitoring and protection; etc.). In view of this consideration, the partners have presented several successful experiences (from transport and mobility policies to environment and attractiveness ones or policies

aiming to support entrepreneurship or social innovation) impacting, directly or not, on low-carbon transition and climate mitigation. This transnational sharing has allowed to learn from each other and to identify some solutions to plan and implement in each strait involved in the project, according to the partners and their stakeholders' competencies.

Considering the state of play of Corsica Channel in terms of economic activities' environmental impact, as well explained in the Carbon Study launched in the project, and the blue economy as its core theme for cross-border cooperation (transports and mobility; tourism and promotion; cultural and natural heritage; fishing and aquaculture; renewable energies), the partner representing this area have decided to identify a main issue around which to develop the Action Plan : the circular economy. This topic represents an opportunity to reach benefits in terms of economic, social and environmental growth.

The idea to plan and implement some actions on the circular economy framework has been also supported by the successful experience presented by the French partners during the second thematic seminar in Lecce – The Third Industrial Revolution – launched and developed by a Chamber of Commerce, so a public body sharing (more or less, according to the national law) the economic competencies and expertise held by the Corsica Channel's partners.

2.2 European, national and regional approaches to circular economy

The current development model is mostly based on the linear economy approach “take, make, consume, discard”, which it assumes boundlessness and easy availability of raw and material resources. Instead, the circular economy proposes a more efficient use of natural resources through minimizing the needs of new inputs in production cycles and of the energy. This way, the environmental pressures and impacts connected to extraction, emission and discard of natural and material resources can be effectively reducing. Eco-design, repairing, reuse, maintenance, sharing of products and services, restauration, restructuring and regeneration, as well as reduction of waste production and recycling are all terms and actions of the circular economy. Although these principles of the circular economy are well-known since the 90s, just recently they have been fully enounced in order to be used in international and national laws related to the sustainable growth. The document prepared by the World Economic Forum and entitled "**Toward the Circular Economy: Accelerating the scale-up across global supply chains**" contains an extend analysis of the circular economy approach. The European Environment Agency in the document 2/2016 "**Circular Economy in Europe - Developing the knowledge base**" concretely defined the application rules to achieves objectives of circular economy. Nowadays, the implementation of circular economy principles is curbed by legal and administrative boundaries that needs a more strategic positioning by political decision-makers at international, European and national level. Proper and clear regulations and laws able to support industrial and environmental policies finalized to an effective sustainable growth, and to favour the implementation of innovative processes for reducing pollution, energy consumption and for transforming waste in secondary raw materials. To this purpose, European Union actively promotes a developed model based on sustainable social, economic, and environmental targets to be jointly or holistically achieved through directly and indirectly managed programs, as well as with the European Neighbourhood Policy.

In such a context, in December 2015, the European Commission adopted new measures on circular economy to help consumers and companies in the transition toward a circular and stronger economy, in which resources are sustainably used and reused. Indeed, through promoting a more diffused recycling and material recovery, the actions proposed in the document want to "close the loop" of products life cycle in order to benefit both environment and economy. In particular, the European measures for circular economy are:

- An Action Plan - COM(2015) 614/2 "**Closing the loop - An EU action plan for the Circular**

Economy”;

- Law proposals to modify the existent waste regulations.

The Action Plan defines a program of activities for the entire products life cycle: from production to consumption, to waste management and the market of secondary raw materials. The annex to the Action Plan sets the timeline for implementing the actions.

The proposals to modify the existent waste regulations establish clear objectives on waste reduction and a long-term strategy for waste management and recycling. To this purpose, the new law proposals include real measures to face and remove obstacles in the Member States. The key issues of these new proposals are:

- A common EU target for recycling 65% of municipal waste by 2030;
- A common EU target for recycling 75% of packaging waste by 2030;
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030;
- A ban on landfilling of separately collected waste;
- Promotion of economic instruments to discourage landfilling ;
- Simplified and improved definitions and harmonized calculation methods for recycling rates throughout the EU;
- Concrete measures to promote re-use and stimulate industrial symbiosis - turning one industry's by-product into another industry's raw material;
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes (e.g. for packaging, batteries, electric and electronic equipment, vehicles).

Even if the new law proposals continues to use the “waste” word, the new concept of “prevention” has been introduced with the meaning of the set of actions to be implemented before a substance, a material or product become a waste in order and to reduce:

- The amount of waste, also through the reuse of products or the extension of their life cycle;
- The negative impacts of waste on the environment and human health;
- The content of dangerous substances in products.

In the session of the 14 June 2016, the **XIII Permanent Commission for the Territory, Environment and Environmental Heritage of the Italian Senate** approved a resolution containing the observation to the European measures on circular economy. These observations are the national guidelines on circular economy. According to the above-mentioned resolution is needed:

- Promoting the design of long-lasting products, which are also easily repairable, reusable and recyclable, through opposing the planned obsolescence. To this regard, the EU rules on environmental sustainability do not include measures to counteract planned obsolescence;
- Reinforcing the concept of *circular design*, namely the approach of the eco-design applied to the entire product life cycle in order to improve environmental performance of the product itself.

Key elements of the Italian resolution are:

- Support to research and eco-innovation in order to develop new technologies for recycling, for instance in the plastic sector, and to invest in CO2 recovery and reuse to close the loop of the carbon;
- Strengthening environmental criteria of the *Green Public Procurement* (GPP);
- Promotion of the introduction of the RMC index which measures the productivity of resources;
- Facilitations to energy efficiency of buildings;
- Need to improve the tracking of out-of-use vehicles or of their parts after dismantling;
- Need to define new targets for landfills;
- Sustain to actions for reducing food waste and fiscal measures to favor recovery;

Lastly, the Italian resolution highlights the need for an environmental taxation:

- incorporating environmental risks into tax legislation;
- creating a political framework to favor long-term sustainable investments of privates and Institutions, in order to support innovative and resource efficient enterprises;
- defining incentives and duties to improve the planning on sustainable use of resources and materials along the life cycle.

In **France**, the **Ministry of Environment, Energy and the Sea** proposes the following **definition**: "the circular economy indicates an economic concept which joins within the framework of the sustainable development and the objective of which is to produce goods and services by minimizing the consumption and the waste of raw materials, water and sources of energy". The following step will be the definition of a plan to put into concrete actions the principles of circular economy starting from the pillar of "closing" life cycle of products, services, waste, materials, water and energy.

At local level, the **Region Tuscany** planned several actions according to priorities of circular economy within the "**Regional plan of waste management and reclamation of polluted sites**". The features of these actions are:

- set of actions for regional prevention (self-composting; little fountains, sustainable country festivals, recovery of not-sold goods and not administered meals, repairing, re-use, etc..)
- green procurement;
- reduction and reuse of food waste;
- recycling of plastics and changing toward monoglass;
- WEEE management;
- Recovery of inert waste from C&D

In addition, other actions planned by the Region Tuscany and in line with the priorities of circular economy are:

- Recovery and recycling of agricultural waste;
- Reuse and recycling of waste from stone industry;
- Rationalization of waste from paper industry;
- Improvement of waste management in iron and steel industry;
- reduction of the production of Tioxide red gypsums and their re-use;
- rationalization of the treatment of sewage sludge.

Lastly, in the "**Development Plan for the Tuscan Coast**", the **Region Tuscany** proposes other actions consistent with circular economy, such as:

- implementation of clusters for industrial symbiosis and circular economy;
- Pre-Commercial Public Procurement to support new products and services in line with circular economy;

Promotion of recycling, separate waste collection; reduction of waste volume to transfer to landfill and support of recycling supply chain.

Part IV – Towards cross border plan to support circular economy in the Corsica Channel Area

The transition towards a circular economy calls for social innovation, as much as technological innovation. The report entitled URBACT's "Social Innovation in Cities" defines social

innovation as “innovative solutions, new forms of organisation and new interactions to tackle social issues”, with a focus on “innovative solutions in terms of the governance of cities: new forms of collaboration between the city administration, citizens and local stakeholders which can generate more sustainable, resilient and open systems at city level.” Indeed, circular economy is one of the twelve priorities of the current EU Urban Agenda with the specific objectives to increase the re-use, repair, refurbishment and recycling of existing materials and products to promote new growth and job opportunities. The focus of the circular economy partnership should be on waste management, the sharing economy, and resource efficiency. Therefore, local and regional authorities have an important role in launching and accelerating the transition to a circular economy, setting clear

framework conditions or directly supporting local and regional stakeholders. A circular economy may have a different flavour in every European city and region, depending on geographic, environmental, economic or social factors. For instance, the European islands and peripheral regions mostly suffer of accessibility problems. In many cases, maritime areas are characterized by a high concentration of maritime activities (logistic, tourism, fishing, agriculture...) resulting in an important production of waste and GHG emissions, especially if these areas host ports.

In addition, apart from a few exceptions, the communities of islands, coastal and maritime regions of South Europe show a delay in implementing effective approaches aimed at supporting green/blue growth and circular economy strategies, as shown in Figure 1. Anyway, the above-mentioned territories, and in particular Corsica Island and the Tuscan coast, are positively characterized by a good quality of life, the presence of a high density of natural and cultural capital and a strong cultural identity, which are tangible levers for circular economy transition and green growth. These factors are important opportunities to be capitalize, matching them with the international demand for quality of life, quality and safe food products, sustainable tourism and residential services. But also the difficulties of these regions, such as potential high cost of transport and lack of connections with other territories – particularly in the case of islands – can

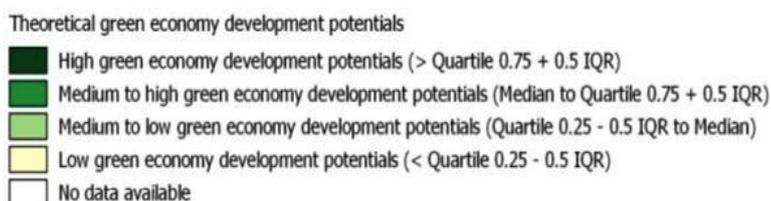
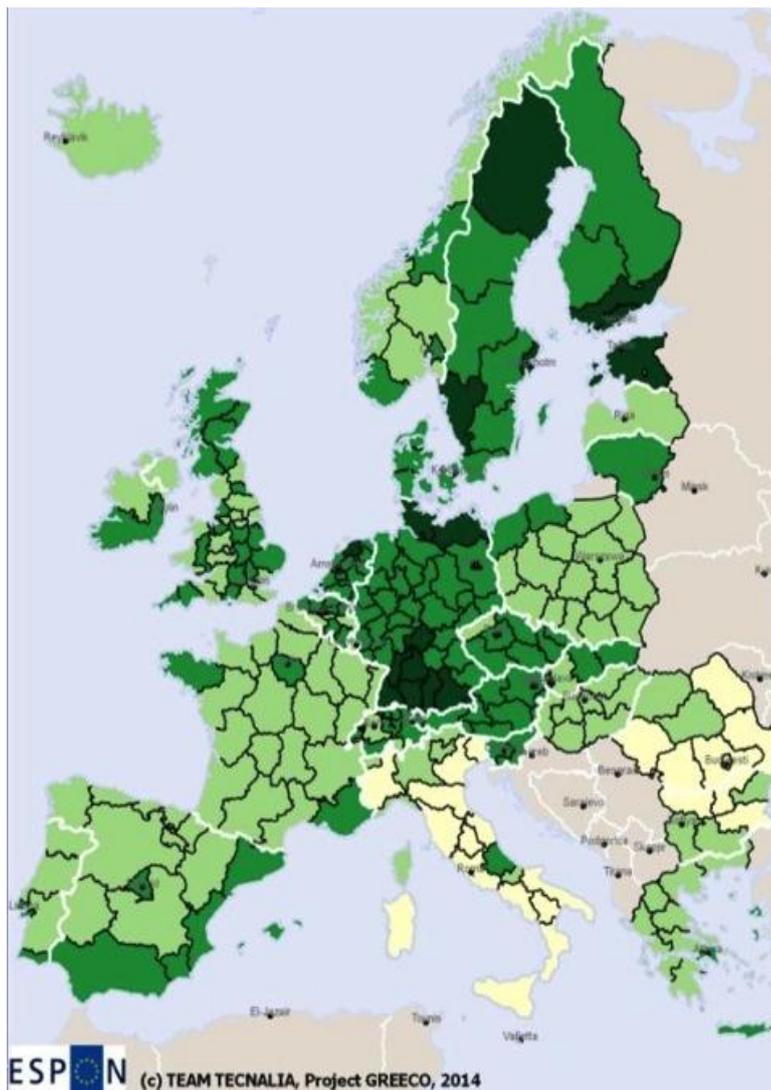


Figure 1: Theoretical green economy potentials at NUTS2 level (2013). Elaboration basing on Multi-Criteria Assessment. Source: TECNALIA, 2014.

be changed in strengths through circular economy providing more flexible and green solutions, mostly based on clean energy.

Since a circular economy may look different in every region depending on local needs and resources, the process to change maritime environmental challenges into opportunities can be starting with small, experimental projects that can then be scaled up and translated into policy. Regarding the maritime cities and regions in general, the opportunities offered by circular economy largely span around the available main resource, namely water. In particular, sustainable approach to this resource should go beyond the pursuit of the simple water management mostly referred to wastewater treatment and reduction of water use. In particular, the marine environment and water resource should inspire technological, organisational and social innovation through the whole value chain of water, i.e. water as a resource, as a productive input and as a waste stream, moving towards a circular economy approach. In addition, islands being isolated, closed ecosystems, they can turn out an interesting laboratory for a model which the principle is to recycle everything, limiting, in particular, the export and import prices. Looking at European best practices on circular economy coming from maritime areas (coastal territories and islands) and characterizing them on the specific needs of the Tuscan coast and Corsica Island supported the definition of three main areas of growth, which are already excellent in these regions but needs to be improved in terms of circularity and greener economy: circular tourism, circular agri-food (agriculture and fishing), and circular port (boating, transport and logistics). To this purpose, the Chambers of Commerce of Maremma and Tirreno and Bastia plan to lead a number of actions aimed at raising awareness amongst insular economic actors, to help business leaders turned to this kind of economy.

Part IV – Details on the actions envisaged

1 – ACTION ON CIRCULAR TOURISM

1.1 The background

Tourism is the third largest socio-economic activity in the EU (following the trade and distribution, and construction sectors). So, it is one of the activities that mainly support the economic sector. In fact, over the years, from 2007 to 2016, the contribution of tourism to GDP has been about 9-10% and in 2016 has supported over 200 million jobs (direct, indirect and induced impacts).

At the same time, however, it can produce negative impacts: it can be the cause of environmental damage and pollution, heritage degradation, etc. because it is configured according to the model of linear economy (take-make-dispose). It accounts for about 5% of global CO2 emissions (mainly generated by transport and tourism facilities). Accommodation facilities are often the major consumers of non-renewable and precious resources (in some areas a resort may consume more water per person than the local community with which it competes for supply). In addition, tourism can produce negative impacts on biodiversity and cultural landscape.

These several negative impacts that tourism sector can produce highlight the necessity for tourism to be well planned, managed and monitored. It recalls to efficient policies and actions to plan and manage the sector in order to reduce negative impacts. Tourism planning and management should meet simultaneously needs of visitors, environment, community, industries, etc. It should be configured according to sustainability principles.

Sustainable tourism is a concept applicable to all form of tourism (mass and niche tourism) and to all destinations. In order to be a sustainable sector, tourism needs to transform its processes from linear (take-make-dispose) to circular (take-make-use-remake) ones. The logic of circular economy can be transferred from the industrial field (Industrial ecology) to the tourism sector through

the implementation of business models based on sustainable principles. The circular model can help to make tourism more sustainable.

1.2 Actions to be implemented

Tourist destination can reduce CO2 emissions through actions related to waste, recycling policies, energy conservation and use of environmental materials. Firstly, in order to organize and manage tourism according to circular processes an adequate legislation framework and regulation on investment are necessary. Furthermore, in order to direct tourism development/management strategies, the evaluation of local touristic potential is necessary. Inadequate knowledge of the territory and of tourism demand and supply can badly direct development policies, producing negative impacts on the environment, economic activities, local culture and community. These relationships and thus the multidimensional impacts of tourism sector require adequate evaluation and monitoring tools, through appropriate indicators. Therefore, the first action to be implemented is a clear strategy, such as a Local Plan for Circular Tourism which has to include:

- The state of art of local tourism: supply and demand, tourist flows, tourism attractiveness potential (cultural and natural heritage, facilities, structures and infrastructures, entertainments, etc.);
- The SWOT analysis;
- General and specific objectives: long-term vision and middle-term mission
- The methodology to set actions able to achieve objectives;
- A set of first actions;
- A monitoring system with an updating plan.

The Local Plan for Circular Tourism should be then harmonized at regional level and compared and improved taking into account cross-border experiences in order to set a more powerful interregional strategy able to really tackle objectives of EU Action Plan on circular economy.

Other concrete actions to be implemented to favour the transition towards circularity by hospitality and tourism organizations could be:

- Good retrofits of existing tourism buildings to save energy consumptions: introduction of renewable energy systems, energy efficient lighting, cooling and heating.
- The “Adaptive reuse” measures: Using tourism as mean to regenerate knowledge produced by each territory, in terms of values, language, significance, and skills through maintenance, reuse, restoration and rehabilitation of existing material and immaterial resources, also assigning new functions able to keeping them alive.
- Reducing food waste through agreements with local food banks, producers of feed for animals, animal shelters, compost producers, etc..
- The “zero km menu”: it’s important for regional economy facilities because offering food and local products encourages local economy and the work of small local companies.
- The “Waste = Money” campaign: visitors can pay part of their entrance fee with reusable waste (plastic, aluminium bottle, paper);
- The “Waste = fertilizer”: farm leisure and hotels can use organic waste produced by their visitors and people – but also by other local tourist structures and restaurants – as organic fertilizer for their agricultural productions.

To support the above-mentioned actions the Chamber of Commerce of Bastia, in particular, will continue its awareness-raising measures with hotel and restaurant owners with a view to the improvement of their environmental performance via a ludic and interactive Web-application. The professionals will spot in their establishment the posts to improve room by room (water, energy, waste ...) and will be able to simulate the potential cost savings linked to the environmental performance of the establishment. In addition, both Chambers will support tourist accommodations to obtain the European ecolabel and will assist them in the process certification (presentation of the

approach, assistance in the preparation of subsidy, choice of service providers).

1.3 Players involved

In order to set the strategy for the Local Plan for the Circular Tourism, it's important to involve all levels of the local tourism chain, from policy-makers to civil society. Referring to the regional context, the players to be involved are:

- Representatives of National Agencies (Italian and French) for Environment and Energy and National organisations for standardization;
- Political and technical representatives of the regional administration operating in tourism policies, but also in sectors linked to tourism (i.e. infrastructures and maintenance, environment, local development, etc.);
- Representatives of local Chambers of Commerce that have the local tourism competence;
- Political and technical representatives of the municipal administration operating in tourism policies but also in sectors linked to tourism (i.e. infrastructures and maintenance, environment, local development, etc.);
- Local tourism and hospitality operators and related associations and other economic organizations operating in sectors potentially connected to tourism;
- Representatives of civil society.

1.4 Timeframe

36 months for the realization of the Local Plan for Circular Tourism and at least 4 concrete actions

1.5 Costs

Costs mainly depend on the first 4 concrete actions to be implemented during the timeframe. The cost for the realization of the Local Plan for Circular tourism can range from 200.000 and 300.000 euros, depending on the different competences to be involved.

The exchange of experiences and results at cross-border level in order to achieve a common interregional plan could require an additional budget of about 100.000 euros.

1.6 Funding sources

Structural funds and other national funds

2 – ACTION ON CIRCULAR AGRI-FOOD (AGRICULTURE AND FISHING)

2.1 The background

The current food production and consumption habits are unsustainable. Food production generates various environmental impacts, such as eutrophication and increased CO2 emissions. As per different estimates, approximately 30%–50% of food intended for human consumption is wasted at different stages of the food system. Current inefficiency in the food economy means we lose productivity, energy, and natural resources, and also bear the costs of throwing food away. To be noted that the most of food waste refers to agricultural food waste. In addition, in the last 50 years, agriculture has become more resource intensive, relying heavily on the availability of fossil inputs in the form of synthetic nitrogen and phosphorus fertilisers, oil derived agrochemicals and fossil fuels. On the other end, climate change produces several negative impacts on agricultural systems: higher temperatures and changes in global precipitation patterns increase the likelihood of reductions in crop yields and the proliferation of weeds and pests on agricultural land. Similarly, a number of

climate-related threats to both capture fisheries and aquaculture are identified. There are strong interactions between the effects of fishing and the effects of climate because fishing reduces the age, size, and geographic diversity of populations and the biodiversity of marine ecosystems, making both more sensitive to additional stresses such as climate change. Indeed, the frequency and intensity of extreme climate events is likely to have a major impact on future fisheries production in both inland and marine systems.

However, the above challenges present a major opportunity for the development of a circular economy using innovative technologies and profitable business practices to address the utilisation of agricultural and fisheries wastes, byproducts and co-products, as well as to define new systems for less intensive and more sustainable agri-food production. Circular economy offers solutions in moving towards a sustainable agro-food system. The circular economy aims at using materials first as products, then as re-used/recycled materials and, finally, as energy. It aims to close the loops at the smallest possible cycles and use a minimal amount of auxiliary inputs, such as energy, in the process.

2.2 Actions to be implemented

In the transition towards a circular economy, there is a need to collect and share data, produce exemplars, make innovation investments and facilitate business collaborations. Transition is required at a supply chain level rather than individual company because it implies evaluation and re-design of existing production systems, incorporating integrated technology solutions that enable the development of the biogeochemical and technical aspects of the circular system. T

In this context, the first action to be developed is a Local Agro-Food Circular Plan, in which will perform an integral analysis of the agri-food value chain, including livestock and crop production, fishing and aquaculture, food processing and retail sector, providing mechanisms to achieve an increase in the recycling and valorisation of agri-food waste by maximising the use of by-products and co-products via the creation of new sustainable value chains and production systems. In order to favour transition, citizens and consumers should be included in the Agro-Food Circular Plan with the role of experiments in the actions related to community supported agriculture, different strategies towards shifting to a more plant-based diet, and education on food waste minimization. These are policies that can really contribute to better food waste and surplus management.

Therefore, the Local Agro-Food Circular Plan should be articulated as follow:

- Mapping the value chain of the local agro-food system (agriculture and fishing, aquaculture included);
- Characterization of production systems as well as agro-food waste;
- State of the art of technologies for valorising agro-food waste and byproducts in terms of biofuels, bio-fertilisers and other new bio-products;
- Feasibility studies and SWOT analysis of the application of the above-mentioned technologies to the value chain of the local agro-food system;
- General and specific objectives: long-term vision and middle-term mission
- The methodology to set actions able to achieve objectives;
- A set of first actions;
- A monitoring system with an updating plan.

The Local Agro-Food Circular Plan should be then harmonized at regional level and compared and improved taking into account cross-border experiences in order to set a more powerful interregional strategy able to really tackle objectives of EU Action Plan on circular economy.

Other concrete actions to be implemented to support the transition towards circularity by the agro-food system could be:

- Support local farming and fishing through various policy tools (investment support, tax

incentives for agri-food waste recovery and subsequent re-use, improve opportunities to sell local foods locally);

- Support local producers who “de-specialize” or already practice mixed farming and fishing (animal + plant production to recycle manure; combining agriculture or fishing with circular tourism, etc...);
- Education for citizens and consumers on food, food chains, effects on environment, sustainability, waste management and packaging;
- Promotion campaign on sustainable consumption habits and food choice awareness;
- Support to close material loops at every stage of the agro-food value chain.

2.3 Players involved

In order to set the strategy for the Local Agro-Food Circular Plan, it's important to involve all levels of the local agro-food chain, from policy-makers to civil society. Referring to the regional context, the players to be involved are:

- Political and technical representatives of the regional administration operating in agro-food policies and other potentially linked sectors;
- Representatives of local Chambers of Commerce;
- Political and technical representatives of the municipal administration operating in agro-food policies and other potentially linked sectors;
- Local operators of the agro-food systems and other economic organizations operating in sectors potentially connected to agro-food (such as logistics);
- Representatives of civil society.

2.4 Timeframe

36 months for the realization of the Local Agro-Food Circular Plan and at least 4 concrete actions

2.5 Costs

Costs mainly depend on the first 4 concrete actions to be implemented during the timeframe. The cost for the realization of the Local Agro-Food Circular Plan can range from 300.000 and 400.000 euros, depending on the different competences to be involved.

The exchange of experiences and results at cross-border level in order to achieve a common interregional plan could require an additional budget of about 100.000 euros.

2.6 Funding sources

Structural funds and other national funds

3 – ACTION ON CIRCULAR PORTS (TRANSPORT AND LOGISTICS)

3.1 The background

The maritime sector accounts for three percent the global warming. Over the last decades its emissions have risen twice as fast as the global emissions. Port Authorities have clustered together to start the world ports climate initiative (WPCI). This initiative is being used to reduce greenhouse-gas emissions and improve air quality. Many European and American ports have joined the WPCI. Port authorities often use data of CO2 emissions, NOx emissions, PM10 and SO2 to monitor their emission output. Furthermore an important trend that is observed in North European Ports is the adoptions of measures according to principles of circular economy. The rise of the circular economy

has different rationales. These reasons consist of the need of less dependence on fossil fuels, a social demand of more understanding of the origin of products and reusing materials and an increasing scarcity. However, the adaption of the circular economy must be within a rational business model to establish attractiveness.

A seaport can be used as two main functions. It can be used as a transport hub, but also as a manufacturing location. In this context, since ports are used to perform value added activities for all kinds of products, this can be implemented for waste and residual products as well. Often waste and residual products have a relatively high added value, whilst other products might have a lower added value. It can be even more profitable to execute these activities in a port area due to clustering activities. Therefore a port would be a good location for value added activities. An important factor to eventually reach the point of a complete circular economy is innovative solutions for new product design. Therefore a lot of research and development must be done. A port authority could stimulate promising start-ups to trigger innovation. Ports which are accommodating start-ups through incubator centers bring employment and add to a more sustainable economy. Some port cities, like Amsterdam and Rotterdam, are stimulating the emergence of innovation circles, places where people bring expertise together around thorny problems and turn them into business challenges. These port communities have realised that for circular thinking, one needs entrepreneurial spirits. This way, on the long term, the global closed loops could be more regional and then ports should search for new solutions for continuation.

3.2 Actions to be implemented

In order to increase the concern for the circular economy challenge within the seaports it's important to modify the management and the priorities of the maritime programmes at local and at cross-border levels, so that the EU Action Plan for circular economy becomes real criteria for implementing projects. To these purposes, it's fundamental:

- provide strong evidence of the need to add specific measures to support circular economy thanks to the realisation of an impact study in the regions involved in the project;
- promote exchanges aimed at valorising the circular economy experiences, identifying at the same time best practices, strengths and weakness;
- implement action plans to encourage the managing authorities of the maritime programmes at local and at cross-border levels to implement new measures in favour of circular economy.

To these purposes, two main and strategic actions should be firstly realized:

- The exchange of experience at regional and interregional levels and production of Regional Plans for Circular Port;
- The implementation of the Regional action plans and creating synergies at cross-border level.

Above-mentioned actions can be realized implementing the following activities:

- Analysis of the policies and profiles of local Ports in order to define proper solutions to reduce environmental pollution in city-port territories and to plan an effective integrated management plan.
- Gain awareness of the maritime dimension of the circular economy to tackle the "water-as-a-resource" challenge: logistic and port activities; seaside and sustainable tourism; fishing;
- SWOT analysis of potential policies and actions for Local Circular Ports and feasibility study
- General and specific objectives: long-term vision and middle-term mission
- The methodology to set actions able to achieve objectives;
- A set of first actions;
- A monitoring system with an updating plan.

Once the Local Strategy for Circular Port has been defined the results should be shared at

regional and cross-border levels in order to finalize the Regional Plans and to create cross-border synergies. Main outputs of such exchange of experiences and strategies will result in:

- Action Plans on Circular Port written at regional level in each ports, including actions to improve the maritime programme management at regional level and any other initiatives for the implementation of circular economy measures/alternatives in the port areas.
- An Action Plan on Circular Port written at cross-border level, including actions to improve the cross-border maritime programme management and any other initiatives for the implementation of circular economy measures/alternatives in the cross-border port areas.
- Policy recommendations, to provide strong arguments to the maritime cross-border programmes and to the European institutions. It will provide best practices of cross-border projects/initiatives in the field of the circular economy in ports; some of them might be transferred in other straits of the partnership to answer similar challenges.

3.3 Players involved

In order to set the strategy for the Regional Plan for Circular Port, it's important to involve all levels of the port chain, from policy-makers to civil society. Referring to the regional context, the players to be involved are:

- Political and technical representatives of the regional administration operating in maritime and infrastructure policies and other potentially linked sectors;
- Representatives of local Port Authorities;
- Representatives of local Chambers of Commerce;
- Political and technical representatives of the municipal administration operating in maritime policies and other potentially linked sectors;
- Local operators of the port systems and other economic organizations operating in sectors potentially connected;
- Representatives of civil society.

In order to achieve the political attention needed to potentially influence the cross-border maritime programme by the Cross-border Action Plan on Circular Port and the related policy recommendation, it will be also important to involve:

- the managing authority of the programme
- the JTS of the programme

3.4 Timeframe

36 months for the realization of Regional Plans for Circular Port and additional 12 months for the implementation of the Cross-border Action Plan on Circular Port

3.5 Costs

The cost for the realization of the Regional Plan for Circular Port can range from 300.000 and 400.000 euros, depending on the different competences to be involved.

The implementation of the Cross-border Action Plan on Circular Port could require an additional budget of about 100.000 euros.

3.6 Funding sources

Structural funds and other national funds

4 – ACTION ON COMMUNICATION

4.1 The background

During the first phase PASSAGE project has focused on communication and dissemination activities to gain visibility at local, regional and European level. In order to contribute to low-carbon transition is extremely important to sensitize and involve direct and indirect stakeholders.

4.2 Actions to be implemented

The Chambers of Commerces involved in the Corsica Channel area will spread the results of the project to the stakeholders and other relevant audiences, as started in the first phase of PASSAGE. During the phase 2 and over the partners will share the news, documents and results of the project with the actors involved in the cross-border programme Italy-France Maritime with articles on the programme newsletter and/or facebook profile and/or mailing.

4.3 Players involved

The Communication officers of the partners are responsible of the communication and dissemination activities to be implemented at local and/or cross-border level. The PASSAGE project officers will coordinate this important transversal action.

4.4 Timeframe

In the second phase of the project the partners will focus their attention on communication and dissemination action.

4.5 Costs

No additional costs.

**Chamber of Commerce of Maremma
and Tirreno**

Date: _____

Signature: _____

Stamp of the organisation

**Chamber of Commerce of Bastia
and Haute Corse**

Date: _____

Signature: _____

Stamp of the organisation
