Cross-Border Cooperation in the Adriatic-Ionian Area

This document sets out key characteristics of the Adriatic-Ionian area and outlines options and orientations for the programming of future Interreg cross-border interventions in the area.

The paper should be considered alongside the Adrion orientation paper that has been produced by DG Regional and Urban Policy to prepare the future transnational Interreg programme that will be active in the same sea basin.

For the period 2021-2027, the European Commission has sought to promote a more territorial approach to future Interreg programmes, particularly when it comes to cross-border cooperation. In this context, there is compelling evidence to show that cooperation around sea-basins needs to reflect the specific territorial features of these areas and their overwhelmingly maritime dimension.

Many of the important challenges faced by countries and regions around the Adriatic-Ionian region call for action at sea-basin level. In particular, environmental challenges at sea and in coastal areas, accessibility and connectivity should not be tackled in a fragmented way. A similar approach needs to be taken to socio-economic development.

At the same time, these major challenges also require local actions that will underpin measures taken at European and national levels. In this context, there is room to support cross-border cooperation, provided it is planned and implemented in full complementarity with measures decided transnationally.

This document contains the following main sections:

1. A general analysis of the challenges and opportunities around the Adriatic-Ionian area which affect socio-economic and territorial cohesion;

2. Key elements of future governance for territorial cooperation in the Adriatic-Ionian area

3. Possible scenarios to maximise the impact of future Interreg interventions in the area

4. Orientations for future cross-border cooperation programmes, based on the current cross-border areas covered by an Interreg 2014-2020 programme.

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1. THE ADRIATIC-IONIAN AREA – KEY CHALLENGES AND OPPORTUNITIES

1.1. TOP CHARACTERISTICS

A fairly recent cooperation history

The area around the Adriatic Sea in particular has witnessed many political upheavals in recent decades. The events in former Yugoslavia have led to the birth of new nations, some of which are now members of the European Union, some of which are in the process of acceding. This makes for a challenging framework for cooperation, not only politically but also in a programmatic way.

The countries around the Adriatic Sea are made up of Member States (Italy, Slovenia and Croatia) and accession countries (Bosnia-Herzegovina, Montenegro, Albania). The Ionian Sea is shared between two Member States (Italy and Greece).

High-level political cooperation was initiated by Italy via the Adriatic Ionian Initiative. This cooperation has evolved to lead to the establishment of the EU Strategy for the Adriatic Ionian Region.

When it comes to EU financial support, the region is in receipt of various envelopes, the largest of which is the European Structural and Investment Funds (including Interreg). All four EU Member States around the Adriatic-Ionian seas are recipient of cohesion policy funding, albeit with varying degrees of aid intensity. The three accession countries receive funding from the Instrument for Pre-accession Assistance (IPA), mostly geared towards preparing for a future accession to the EU.

Under the territorial cooperation part of cohesion and accession policies, two transnational, two cross-border cooperation (CBC) and two IPA CBC programmes are implemented in the region.

The overarching strategic outlook for cooperation in the area is framed by the EU Strategy for the Adriatic Ionian Region, which was adopted in 2014 and has been evolving over the years into a dynamic coordination process along four strategic pillars: (1) Blue Growth, (2) Connecting the Region, (3) Environmental Quality and (4) Sustainable Tourism.

The Adriatic and Ionian Seas – joint assets, with important challenges ahead

Environmental pressures and negative impacts on biodiversity continue to be a challenge in the Adriatic and Ionian Seas. Specific issues that are common to most areas of the sea basin include harmful fishing practices, pollution, negative impacts of tourism and growing issues of marine litter.

Moreover, Sulphur Oxides Emissions Control Areas (SOx ECAs) and Nitrogen Oxides Emissions Control Areas (NOx ECA ECAs) are not yet in force in Adriatic-Ionian region. Notably, all the countries that are riparian to the Mediterranean Sea are engaged under the Barcelona Convention framework towards the establishment of a SOx ECAs in the Mediterranean Sea.

It is recalled also that the deposition of air pollutants in waters is a harm to biodiversity and hence fisheries. Air pollution also indirectly affects tourism; therefore actions on air pollution have benefits both on health and on economic activities related to fisheries and tourism.

A very rich cultural and natural heritage… and the need for sustainable tourism

The whole area around the Adriatic and Ionian Seas shares a substantial number of cultural and natural heritage sites which, if appropriately preserved and promoted, could make a strong contribution to conservation and to economic development. Tourism as a sector of the economy has great significance for the region but also faces major challenges. Priority actions are necessary to combat excessive seasonality and the preservation of important natural and cultural sites.

In respect of the environmental impact of tourism, the Adriatic and Ionian Seas face substantial issues of air pollution caused by emissions from shipping (emissions of sulphur and nitrogen oxides as well as particulate matters): cruise-ships, high-speed ferries and international shipping are involved.

Issues around accessibility and connectivity

The challenges of relatively poor accessibility and connectivity are obvious. Many coastal and island communities have poor accessibility and connectivity, and even where there are connections in place these are often less than optimal. The links between local transport networks and the core transport routes that provide essential external connections for the islands and coastal areas are insufficiently developed.

Real socio-economic disparities

The Adriatic and Ionian area faces fairly substantial divergence between the relatively well developed north-west (principally the northern regions of Italy) and the less-developed south-east (regions of Croatia, Greece and the southern regions of Italy), and programme interventions designed to strengthen cohesion need to reflect this core divergence.

1.2. FUNCTIONAL AREAS

When it comes to **maritime cooperation**, or cooperation between maritime/coastal areas, the sea basin itself is a functional area, in particular when considering natural assets and environmental questions, including climate change. One can say that the sea is the “territorial glue” that brings these regions closer together.

Within sea basins it is possible to identify further functional areas based on distinctive, intensive levels of cross-border interaction or interdependencies. For maritime functional areas this could be made visible on the basis, for example, of the number and intensity of ferry connections for passengers and freight, which impact on key sectors of socio-economic life such as labour mobility and access to public services. Other elements might also play a role in linking areas that are separated/connected by the sea such as comparable tourism development trends.

In this vein, within the Adriatic and Ionian area, we cannot say that meaningful functional areas can be identified.

At best, there is merit in considering specific actions for each of the two seas, the Adriatic to the North of the area and the Ionian to the South. Around the Ionian Sea for instance, there are common features that bring the Greek and Italian population closer together such as their common cultural and historical heritage or similar aspects in their economies.

The functional approach described above also means that any future cross-border cooperation area should not be strictly limited to the administrative boundaries of an Interreg programme but should have a flexible geography depending on the topic concerned.

For some topics, a better or more effective solution can be found by involving partners from outside the programme area (e.g. to have a good applied research project on the blue economy, you may need to involve a university which is in the capital of the country).

2. POSSIBLE SCENARIOS FOR FUTURE CROSS-BORDER COOPERATION PROGRAMMES

The preparation for the new programming period 2021-2027 is a good moment for reflection on the current set up of the different Interreg programmes in the Adriatic-Ionian area. For this purpose, the European Commission's DG Regional and Urban Policy organised a roundtable discussion on 20 September 2019 with the Member States around the Adriatic and Ionian Seas for an open discussion. Taking into account a probably smaller budget for the future and the need for a stronger strategic focus, the question is if the current set up is the most efficient one or if certain changes are required.

There was general agreement in the meeting that stronger coordination is required between the different strands of the Interreg programmes not only during implementation but especially during preparation of the programmes to avoid negative overlaps in the design of investment priorities and to identify optimal complementarities ("positive overlaps"). This requires appropriate coordination structures and early exchanges on the design of future programmes.

2.1. ARCHITECTURE

Under the current architecture, the Adriatic-Ionian area is covered by:

- The EU Macro-regional strategy EUSAIR
- Two Transnational programmes: Adrion and MED (for the whole Mediterranean)
- **Two CBC maritime programmes: Italy-Croatia and Greece-Italy** (and other land border programmes in the area: Italy-Slovenia, Slovenia-Croatia)
- Three IPA CBC programmes with a maritime dimension: Croatia-Bosnia and Herzegovina/ Montenegro, Greece-Albania and Italy-Albania/Montenegro.

Therefore, the two CBC maritime programmes do not operate in isolation but are part of a larger complex set of programmes and strategies in the Adriatic-Ionian area, which need to be taken into account when designing the maritime CBC programmes.

Possibilities for alternative geographical architecture of CBC programmes for the Adriatic and Ionian Seas / Adriatic-Ionian area are:

Adriatic Sea:

One CBC programme between Italy, Croatia and Slovenia covering the whole northern part of the Adriatic Sea. This would address the current maritime geographical gap (Slovenia) identified in the 2014-2020 programme period. The three coastal Member States share many common features and challenges like maritime pollution, important ports and intensive coastal tourism. Clear benefit can be gained from more localised interventions and from bi- and trilateral cross-border cooperation at levels below the sea basin level. An example of this could be the cooperation between five important ports in the area Trieste, Venice, Ravenna (IT), Koper (SI) and Rijeka (HR), which function as well as 'gateways' to core land based connections, with links to TEN-

T corridors. Also sustainable tourism development (to mitigate pollution and reduce seasonality, to increase intermodality of transports, or for shared marketing, product development, integrated tourism packages) and cultural heritage linkages (preservation and/or promotion) would gain benefit from targeted cross-border engagement.

This scenario keeps the distinction between CBC and IPA CBC programmes in the Adriatic region, which might facilitate implementation. It also means that the bi-lateral CBC programme Italy-Slovenia can fully concentrate on land-based cooperation activities.

Ionian Sea:

The options for changes in the Ionian Sea are rather limited, with Greece-Italy as the only programme. The scenario to explore is how the area of the current cross border **programme could be extended on the Italian side** within the given legal framework. Including the regions Calabria and Basilicata[1] would on the one hand enlarge the programme area, but on the other hand also offer the basis for a stronger strategic and thematic orientation. The following areas may gain real added-value from targeted bilateral cross-border engagement in this area:

- Sustainable tourism developments, involving shared marketing, product development, integrated tourism packages, etc.
- Linkages between cultural heritage sites sharing common features in order to address issues of either preservation or enhancement/promotion
- Sustainable Blue economy as a growth sector for the region

The Commission presents these alternatives for the geographical architecture as input for debate and internal reflection within and between Member States and is open for further dialogue.

In summary, possibilities for alternative geographical architecture of CBC programmes of the Adriatic Ionian Sea area are:

Adriatic Sea:

One maritime CBC programme for Italy, Slovenia and Croatia.

Ionian Sea:

Possible extension of the Greece-Italy programme with Basilicata and Calabria (within legal framework) to address better common themes on both sides of the border.

[1] As Sicily is completely included in the Italy-Malta CBC programme, but is also partly located in the Ionian Sea, further complementarities should be developed between the two programmes.

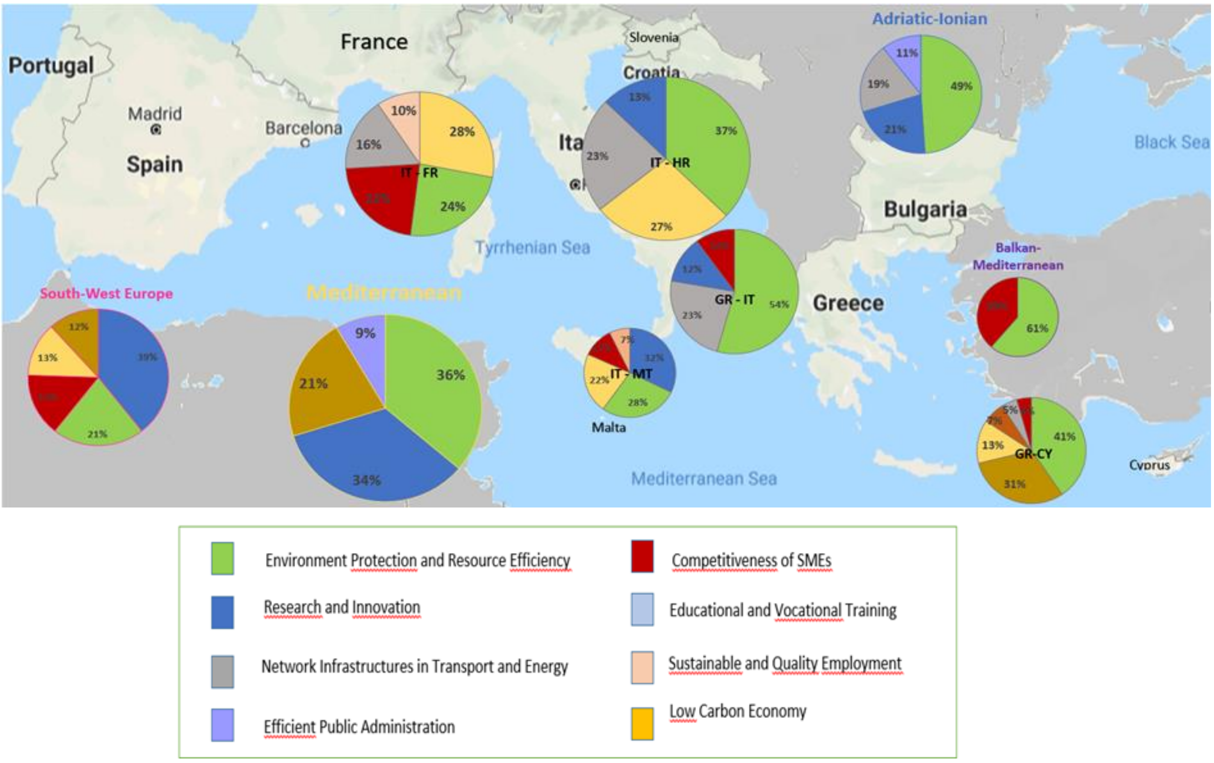
2.2. THEMATIC CONCENTRATION

A more strategic focus for the future programmes will imply as well a stronger thematic concentration of investments under the next generation of maritime CBC programmes. This cannot be done in isolation, but should be done in close coordination with first of all the macro-regional EU Strategy for the Adriatic and Ionian Region (as strategic framework) and its four pillars: 1) blue growth, 2) connecting the region, 3) environmental quality and 4) sustainable tourism.

Secondly, close coordination with the investment priorities under the future transnational programme Adrion will also be of key importance. The Commission proposes for this programme to focus mainly on Policy Objective 2, i.a. environmental protection and conservation and the ecological connectivity of the Adriatic and Ionian region in particular in the fields of biodiversity protection (both marine and of internal mountainous areas), sea pollution reduction and prevention, and climate change adaptation (including risk prevention). Also promotion of RDI activities across the Adriatic and Ionian region, with a focus on identifying joint challenges and innovative solutions and smart economic transformation (Policy Objective 1) is proposed, as well as actions under Policy Objective 5, i.a. increase in services of general interest in remote areas such as islands or mountainous regions, and the new specific objective for better Interreg governance (cooperation between regions, across borders and between programmes).

This proposal for the transnational Adrion programme will also have consequences for the choice of investment priorities under the cross-border programmes in the Adriatic-Ionian area. Investments under the same Policy Objectives will need to show clear complementarity with the transnational programme.

To respond to the high political commitment on climate action reinforced in the European Council conclusions adopted at 12 December 2019 (EUCO 29/19), due regard shall be given to the EU climate policy objectives as laid down in the European Green Deal re Commission Communication COM (2019) 640 final of 11.12.2019. This includes contributing fully to the objective of a climate neutral Europe by 2050. Furthermore, the Communication emphasises that strengthening the efforts on climate-proofing, resilience building, prevention and preparedness is crucial, and that the work on climate adaptation should continue to influence public and private investments. In this context also on-shore power systems in ports or/and possibilities for a joint approach on LNG mobile bunkering could be considered.



Environmental protection and resource efficiency (Thematic Objective (TO) 6) is the sector where currently most funding is allocated by the two maritime CBC programmes and the transnational programme for the Adriatic-Ionian region as well as the transnational programme MED, covering the whole Mediterranean. For CBC Greece-Italy it is even more than 50%. Network Infrastructures in Transport and Energy (TO 7) comes second in CBC Greece-Italy, but is also important in two other programmes (although not in the transnational programme MED). CBC Italy-Croatia devotes also a large budget to low-carbon economy (TO4). Research and innovation (TO 1) is present in all programmes with moderate allocations.

The indicative thematic priorities set out below are those that address challenges, that are both common to cross-border regions in the Adriatic Ionian maritime border area, and that are most appropriately addressed by cross-border cooperation rather than by other forms of intervention (such as by national/regional development funds).

Measures to improve environmental conditions and safety in the Adriatic and Ionian Seas. This is already the most important area for investments during this programme period and will continue to be equally important for the future. A clean, healthy, safe maritime environment, with reduced levels of pollutants, reduced marine litter, healthy habitats to support sustainable marine biodiversity, and green and safe shipping (with less impact on air pollution in coastal areas as well as on fisheries and tourist activities) is central to developing a successful, sustainable maritime border area.

Close coordination with the transnational programme Adrion and the macro-regional strategy EUSAIR will be key to achieve best results. It seems that there would be particular advantages in taking a macro-regional approach to certain interventions. This could be by giving greater emphasis within separate maritime CBC programmes to prioritising interventions that align closely with the wider strategic framework and that more clearly demonstrate macro-regional impact for the whole Adriatic-Ionian area.

Areas that would seem to be particularly suited to a macro-regional approach include the following:

- Improvement of environmental conditions and biodiversity in the Adriatic and Ionian Seas. Whilst there are clearly environmental measures that can be addressed jointly and in cooperation, between bi- or trilateral partners in Italy, Croatia and Slovenia and/or between Italy-Greece, the core challenges require actions by all countries surrounding the seas.
- Maritime safety and surveillance. This is an issue that generally requires planning and interventions at sea-basin level, although there is also space for some actions at a more localised level (within an agreed framework).

Promoting blue growth. There is widespread consensus that the blue economy is of great importance for the area, and there are clearly benefits to be gained from improvements in 'blue' innovation, blue biotechnology, sustainable maritime transport, marine renewable energy, etc. Due to its broad and diverse scope Blue Growth could be integrated as a cross cutting theme with an impact on all future investment areas.

Sustainable tourism. Within the context of a wider effort to promote blue growth, it appears clear that actions to develop sustainable tourism will be important in future programmes. Tourism is a significant element in the area's economy, it faces a number of challenges that are common across the area (e.g. seasonality, cultural heritage protection) and it is recognised as a key sector impacting on the current and future status of the shared environment in the area. Support should focus on innovative cross border types of tourism linked to e.g. marine environment and cultural heritage.

Preservation of natural and protected cultural heritage areas. The area contains many important natural and protected areas as well as an extensive number of protected sites of cultural heritage and has common challenges in ensuring that such areas and sites are preserved. This could function as a distinct theme or as a sub-priority within an environmental theme and/or a sustainable tourism theme.

Improving maritime and land-sea accessibility and connectivity. This has several dimensions but, given the maritime nature of the programmes, should include measures to improve maritime connections where these are less developed and are feasible, and also to increase the hinterland accessibility of key coastal connection-points (ports) so that land-sea interactions are improved. Interventions in this area need to be consistent with, and linked to, current and planned land-based networks and connections (including particularly links to core land-based TEN-T networks where appropriate). Taking into account the limited budget under Interreg CBC programmes, this implies mainly soft measures or small scale infrastructure. Larger scale infrastructure would have to be financed by national or regional EU programmes.

Quality of government: The data does indicate a real need in the maritime border area to improve the quality of government and this dimension should be included, clearly and explicitly, in the design and development of interventions. It should be noted, though, that cross-border interventions can only have a limited role in addressing core issues of governance and administration. Possible actions can be supported under the specific objective for better Interreg governance.

Support for innovation, knowledge economy and digital economy. The area has relatively low innovation capabilities currently, but it is questionable whether cross-border cooperation is the most appropriate form of intervention to address this lack of core capacity in innovation or digital economy. However, there are substantial common needs for new developments in relation to challenges in the cross-border environment, sustainable cross-border transport, sustainable cross-border tourism products, and cross-border blue economy activities. It is proposed that CBC interventions should promote innovation within these themes, that are clearly cross-border, and not as an innovation priority *per se*.

Addressing island-specific challenges. The Adriatic-Ionian area includes many islands and there is some, if limited, data to indicate that these islands face particular issues (low accessibility, high impacts from shipping pollution, etc). This area should be considered and, if possible, further analysis could help to investigate the main challenges and problems.

ORIENTATIONS

- In summary, thematic concentration in the CBC programmes of the Adriatic-Ionian area should focus on:
- Measures to improve environmental conditions and safety in the Adriatic and Ionian Seas
- Promoting blue growth as a cross cutting theme
- Sustainable tourism
- Preservation of natural and protected cultural heritage areas
- Improving maritime and land-sea accessibility and connectivity: soft measures/small scale infrastructure
- Quality of government
- Support for innovation, knowledge economy and digital economy closely linked to maritime issues
- Addressing island-specific challenges
- Close coordination with the macro-regional strategy EUSAIR, the ADRION transnational programme, the IPA CBC programmes as well as the national and regional EU funded programmes needs to be guaranteed both during programming and implementation.

3. GOVERNANCE

3.1. MACRO-REGIONAL STRATEGY

All the cross-border regions of the Adriatic/Ionian seas are covered by the EU Strategy for the Adriatic Region. Macro-regional strategies are supported by the highest political levels of the EU, the Member States and the regions concerned and have become an integral part of EU regional policy. Macro-regional strategies require trust and confidence between their partners (Member States, regions, stakeholders, etc.) in order to share a common vision which will bring concrete actions and projects. Territorial cooperation programmes need to contribute to this vision. Hence, the need for high levels of coordination and complementarity between the various levels of cooperation.

Therefore, the Interreg cross-border cooperation programmes 2021-2027 which are located in a macro-region should be ready where relevant to support those actions arising from the macro-regional strategies, provided they also contribute to the specific objectives of the cross-border region. This requires a good and proactive coordination with the macro-regional strategies (i.e. following the developments of the macro-regional strategies, being in contact with the National Contact Points, etc.). Different types of projects could be funded, including groups of projects (e.g. several programmes fund several projects which together form a coherent 'group of projects' complementing each-other and creating synergies), and single projects (e.g. one programme funds one project, the impact of which is on the entire macro-region). In addition, cross-border programmes may consider one of these mechanisms: specific selection criteria (e.g. bonus points if the project contributes to a macro-regional strategy); earmarking of a budget; specific calls; or labelling (e.g. ex-post identification of projects that could be replicated).

The alignment of cross-border programmes to macro-regional strategies is a 'win-win' approach. Clearly, macro-regional strategies will benefit from the experience, the partners and the funds of cross-border programmes. But, cross-border programmes will also benefit from such alignment: (a) bigger impact (on a wider territory); (b) good project pipeline (project ideas with a political support); (c) better visibility (by political leaders, decision-makers and citizens); and of course (d) an improved situation in the macro-region they are in (the actions of the strategy will also improve the cross-border area). In particular, the contribution to macro-regional strategies does not mean a reduction of the budget available for the programme, as it is clear that every project should also benefit the cross-border functional area.

3.2. COORDINATION/DEMARCATION

Within the Adriatic-Ionian area, several Interreg and Investment for Growth and Jobs programmes overlap, both geographically and thematically (especially the Adrion and MED transnational programmes, two maritime cross-border cooperation programmes and three IPA CBC maritime programmes– see section 3 below). In cases where overlaps exist between programmes, competition for reaching out to the same groups of beneficiaries can lead to suboptimal situations and reduce efficiency.

While not every overlap is necessarily negative, it is important to put in place early coordination mechanisms to ensure that only "positive overlaps" survive. For instance, when it comes to protecting the seas, there is clear scope for acting both at transnational and at regional cross-border level. However, the nature and scope of the actions need to be fully coordinated and need to be implemented within the most appropriate geographical scale. Fighting plastic litter in the marine environment requires that Member States take measures that are then complemented by more regional or local actions such as awareness-raising or sorted waste collections.

Therefore, the 2021-2027 Interreg programmes around the Adriatic-Ionian area need to coordinate their actions at an early stage, including during the programming period. Clear demarcation lines need to be agreed between the different programmes before implementation starts.

During implementation, the results of projects active in the same thematic objective need to be combined. Partners in those projects need to have access to each other's outputs and results.

To this effect all the cooperation programmes around the Adriatic-Ionian area need to reflect on the establishment of effective platforms to capitalise on the results of their respective projects. The Panoramed initiative currently implemented under the transnational programme MED could serve as a good practice.

Finally, the proposed Common Provisions Regulation stipulates that each programme shall set out, for each specific objective, "the interregional and transnational actions with beneficiaries located in at least one other Member State". This means that the Commission now proposes to make compulsory for the mainstream programmes to describe the possibilities for cooperation for each specific objective. They could also explore opportunities to contribute together with other programmes to a larger macro-regional project, where appropriate. Such cooperation may have many benefits for cross-border areas: more ambitious projects (e.g. development of new value chains), involvement of new players (e.g. the national authorities such as ministries) and overall more ambitious policies (e.g. cooperation in innovation in prioritised fields).

This also means that if mainstream programmes do not plan such cooperation actions, they will have to justify the reason.

Therefore, the 2021-2027 Interreg programmes should establish or participate in an already existing coordination mechanism with the authorities responsible for mainstream programmes. This coordination implies exchange of information and cooperation and should happen at all stages: planning (e.g. designing complementary actions, including identifying smart specialisation areas on the basis of national and regional needs and potential), implementation (e.g. building on synergies) and communication (showing the benefits for the citizens and the region).

3.3. "INTERREG GOVERNANCE" SPECIFIC OBJECTIVE

Cross-border cooperation is not limited to Interreg programmes. It also builds on policies (e.g. cross-border mobility), on legal instruments (e.g. bilateral agreements, treaties, European Groupings of Territorial Cooperation) and on funding (including but not limited to Interreg). Actions and orientations set out in this section may be supported by using programme budgets as proposed in the draft European Territorial Cooperation (Interreg) Regulation for improving governance issues.

1. Working on border obstacles and potential

As illustrated in the Commission Communication "Boosting Growth and Cohesion in EU Border Regions", there are many different types of obstacles to cross-border cooperation. There is also scope for greater sharing of services and resources in cross-border regions and to intensify the cooperation between citizens and institutions. Among the obstacles, legal, administrative and institutional differences are a major source of bottlenecks. Other issues include the use of different languages. As the Interreg programmes are instrumental to effective cross-border cooperation, they should seek to address these particular obstacles and tap the common potential to facilitate cooperation in this wider context.

Therefore, one very important objective of the 2021-2027 CBC maritime programmes in the Adriatic-Ionian area should be:

- to identify precisely concrete key obstacles and unused potential (e.g. cooperation between small and medium-sized enterprises (SMEs), transport connections, use of languages, etc.),
- bring the relevant actors together (e.g. authorities at national/regional/local levels, enterprises, users, etc),
- and facilitate the process of finding ways to reduce these concrete obstacles or exploit the potential (e.g. by funding meetings, experts, pilot projects, etc).

2. Role of existing cross-border organisations

Several regions have cross-border entities which can be established under EU law (e.g. European Groupings of Territorial Cooperation – EGTC), national law (e.g. private law associations or public law bodies) or international law (e.g. under bilateral agreements). One example of this are the euroregions under national law, which cover many of the borders in the EU. Many of these entities have a legitimacy (established by public authorities), an experience (many exist for years) and expertise (through their past work and staff) that should be put to good use. In the Adriatic-Ionian area, there are several cooperation bodies such as the "Adriatic-Ionian Euroregion" for example (non-exhaustive list).

Therefore, where available and possible, the 2021-2027 Interreg cross-border cooperation programmes could build on the legitimacy, experience and expertise of these cross-border organisations. Where they are a legal bodies, they could play a role e.g. by managing a Small Projects Fund or by managing strategic projects (as sole beneficiary).

3. Cross-border data

In order to have good public policies (e.g. for innovation, the management of natural resources, transport, etc), these should be based on evidence (e.g. data, studies, mapping). Whilst this is generally available at national level, it is not always the case at regional/local level and even less at cross-border local level. Some of this evidence is particularly important: economic flows, transport flows and trends, labour mobility, mapping of important infrastructures and services (such as energy, waste treatment, universities), mapping of high risk areas (to floods, etc.).

Therefore, the 2021-2027 Interreg cross-border cooperation programmes should identify the areas where important cross-border data is missing and support projects that would fill the gap at the latest by 2027 (e.g. in cooperation with national statistical offices, by supporting regional data portals, etc.).

3.4. PROGRAMME GOVERNANCE

1. Partnership principle

The principle of partnership is a key feature covering the whole programme cycle (including preparation, implementation and participation in monitoring committees), building on the multi-level governance approach and ensuring the involvement of economic, social and environmental partners. Examples of good practice include involving representatives of different interests in the programming process; involving them in programme evaluation or other strategic long-term tasks; consulting all members on key documents also between meetings. Technical Assistance can be made available to facilitate their full involvement in the process.

Another way to involve partners more widely, and to ensure that the programme funding is accessible to a maximum number of beneficiaries is to envisage the use of Small Project Funds under the various thematic objectives selected by programmes (thereby removing obstacles linked to financial standing or administrative capacity).

2. Role of the monitoring committee:

The monitoring committee is the strategic decision-making body of the programme. In 2021-2027 the monitoring committee will be given a more prominent role in supervising programme performance.

The composition of the monitoring committee must be representative for the respective cross-border area which includes key stakeholders for successful work on alleviating border obstacles. The maritime Adriatic-Ionian CBC programmes are also relevant for the development of the macro-regional strategy for the Adriatic and Ionian Region as well as the ADRION and MED Transnational Programmes: relevant key stakeholders should also be invited to attend the monitoring committee of the programmes.

Project selection shall take place in the monitoring committee or in steering committee(s) established under the monitoring committee in full respect of the partnership principle. Larger strategic projects / flagship projects (i.e. designed and implemented by public authorities without a call) may be pre-defined in the programme document or selected via a transparent and agreed procedure. It is up to each programme partnership to decide on the optimal balance between different types of projects required to achieve the overall programme objectives, such as flagship projects, projects embedded in the relevant macro-regional strategy, regular projects, projects selected through bottom-up or top-down procedures, small projects, etc.

Decision-making must also be non-discriminatory and transparent. The procedure should be inclusive. Each monitoring (or steering) committee member shall have a vote. Voting by delegation should not be encouraged unless it is transparent and puts weaker partners at equal footing with "institutional" partners.

- Role of the managing authority

The managing authority shall ensure effective implementation of the programme. The managing authority is also at the service of the programme and its monitoring committee. It acts as the programme authority representing *all* countries participating in the programme.

- Role of the joint secretariat

The joint secretariat should ideally be the cross-border executive body of the programme at the service of the managing authority. It should consist of professional and independent staff from the participating countries. The joint secretariat should possess representative linguistic competence and relevant border country knowledge. Its procedures should be efficient and transparent. Communication with beneficiaries, potential applicants and the general public should be ensured mainly by the joint secretariat. **Regional contact points/antennas** operating directly under the joint secretariat's responsibility may be useful in border areas characterised by large distances and/or difficult accessibility.

3. Trust-building measures

Effective cross-border cooperation requires a good level of trust between partners. Trust needs to be built and maintained. This is a long-term investment which aims at fostering cooperation-minded future generations. The Interreg programmes can make a substantial contribution by providing financial support for trust-building activities such as linking up schools, sports clubs, cultural organisations, etc. The beneficiaries of such activities are often not fully equipped to manage full-blown Interreg projects. Therefore, the use of Small Projects Funds or of specific simplified calls managed by the Managing Authority itself could be considered.

4. Conflict of interest

Conflict of interest between decision-making bodies and applicants and beneficiaries shall be avoided at any moment, including project generation, project preparation, project selection and project implementation. One way to avoid this is to ensure a proper separation of duties between institutions and persons.

5. Communication and publicity

Appropriate actions and measures in line with the Communication Guidelines need to be taken by all involved authorities and beneficiaries, such as the identification of a communication officer per programme, the establishment of a website per programme and use of the term 'Interreg' next to the emblem of the EU. Responsible authorities are encouraged to explore the possibilities to receive targeted funding under the Interreg Volunteers Youth Initiative, by which budget has been made available for citizens engagement activities. In case the programme is financing the implementation of a macro-regional project, the logo of the respective macro-region should be added. Thereby, opportunities will be created for further promotion of the project through the macro-regional platforms and networks, where relevant.

6. Cooperation with the "cooperation world"

There are many initiatives to support cooperation: Interreg Volunteer Youth (IVY) is an action to offer the possibility to young EU citizens aged 18-30 to serve as volunteers in Interreg programmes and related projects); B-solutions (pilot projects to collect concrete and replicable actions which aim at identifying and testing solutions to cross-border obstacles of a legal and administrative nature in five fields: employment, health, public passenger transport, multi-lingualism and institutional cooperation); ESPON (which carries out studies on territorial development).

ORIENTATIONS:

- Involve all relevant actors at national, regional and local level in a dialogue to better integrate policy objectives in development strategies and actions plans.
- Consider setting up one or several small project funds so as to be as inclusive as possible with project beneficiaries, including when seeking to support trust-building measures or increased cooperation between micro-enterprises and SMEs.
- Develop a sustainable way to finance cross-border data collection. The Interreg specific objective could be used for this purpose to set up a structure.

4. ORIENTATIONS FOR FUTURE CBC PROGRAMMES

4.1. ITALY-CROATIA-SLOVENIA

4.1.1. ANALYSIS OF THE BORDER AREA

- The proposed programme area covers an area of 86.595 sq km.
- The area shows a distinct blue and green pattern, featuring the sea basin in the centre, coastal landscapes, green but also some urban areas.
- The population in the Italy-Croatia-Slovenia maritime border area is 12.6 million overall (10.98 million living in the Italian regions and 1.51 million in the Croatian regions and 113 thousand in the Slovenian region).
- In terms of changes to total population (at NUTS2 level), overall the maritime border area had an increase of 2% during the ten-year period of 2007-2017 (slightly below the overall EU average increase of 2.7%). However, there is divergence between the Italian regions (increases, except in Molise) and the regions of Croatia (decreases).[2]
- The Italy-Croatia-Slovenia maritime border area has an unweighted average population density of 204 inhabitants/km^2 (74% higher than the EU average) with substantial divergence within this area (255 inhabitants/km^2 in Italy, 109 inhabitants/km^2 in Slovenia, 57 inhabitants/km^2 in Croatia).
- The median age of population (2018 data) in the Italy-Croatia-Slovenia maritime border area is 46.9, over 3 years above the EU unweighted average of 43.8 (the Slovenian region and the Croatian regions being younger by 2 years, on average, than the Italian regions).
- The GDP per capita, although great variations exist amongst the regions (NUTS2), is 13% below the EU average.
- Within the Italy-Croatia-Slovenia maritime border area there are multiple maritime connections (ferry routes), but they are very seasonal and, with very few exceptions, with long sailing time.
- There are issues of poor land-sea connectivity (linking maritime areas with each other and with land-based hinterlands) in the coastal areas and ports of Croatia, while the levels of hinterland and maritime accessibility in the Italian ports and in Slovenia are better.
- All countries have many national parks and UNESCO World Heritage protected areas. The natural and cultural heritage in the area altogether create a very attractive destination for tourism, which in general is very important for the Italy-Croatia-Slovenia maritime border area, and particularly important for certain maritime regions in the area. At the same time, they need to be protected from anthropic pressure (e.g mass tourism) and other threats (e.g. effects of climate change).
- Different languages are used in the maritime border area, with the three main languages belonging to two different linguistic families. Bilingualism is not general, even though

[2] No comparative population data was available at the NUTS 2 regional level for Slovenia for 2007. Nationally the population in Slovenia grew slightly in the period.

Italians in Croatia and in Slovenia are a recognized part of the population, especially in Istria County in Croatia and in several municipalities in the coastal areas of Slovenia, while Slovene speakers are present as a minority in provinces of Friuli-Venezia Giulia and Croats are present in some villages in Molise where language and traditions are preserved and valorised at local level.

History of cooperation

The Italy-Croatia cross-border cooperation programme 2014-2020 is a new cooperation programme amongst the coastal NUTS3 regions of Italy and Croatia. However, these regions of the two countries are also included in the Transnational Cooperation Programme for the Adrion 2014-2020, and previously in the 2007-2013 Adriatic IPA cross-border cooperation programme.

The overall objective of the 2014-2020 Interreg V Italy-Croatia CBC Programme is to increase the prosperity and the blue growth potential of the area by stimulating cross-border partnerships able to achieve tangible changes. The programme focuses on four priority axes - (1) blue innovation, (2) safety and resilience, (3) environment and cultural heritage, (4) maritime transport - and seven specific objectives responding to the identified key assets and challenges. Nearly two-thirds of its total budget (EUR 236.5 million) is dedicated to priority axes (2) and (3).

4.1.2. OBSTACLES AND BARRIERS

Physical obstacles/transport

Concerns about accessibility - linked to both physical/geographical barriers and transport infrastructure - is around[3] or above[4] the EU average in the Italy-Croatia maritime programme area. This is true for rail, road, sea and air accessibility:

- Sea: there are a number of cross-border ferry routes operating within the Italy-Croatia-Slovenia programme area, particularly in the summer periods with around 25 separate routes, although the sailing times are long (the vast majority of routes involving a duration of more than 3 hours).
- Air: there are a very limited number of scheduled cross-border flights and some charter flights operating within the Italy-Croatia-Slovenia programme area.

Furthermore, hinterland accessibility of the Croatian ports is low, compared to the Italian ports and the main Slovenian port in the area. However, the maritime border of Italy-Croatia-Slovenia has high potential for greater market integration based, specifically, on multimodal accessibility.

Cultural obstacles

Data on barriers connected with cultural differences and socio-cultural attitudes between the regions show average or lower than average concern.[5] However, cultural differences

[3] Datasource – Border Needs Study (Annex 2. Map 13). Note that this study only addressed current border programmes, and so Slovenia was not considered as part of the area's maritime border area.

[4] Datasource – Eurobarometer CBC Survey: 34% of respondents saw accessibility as a problem, placing the border area above the mid-range of all EU border regions. Note that the Eurobarometer surveys only addressed current border programmes, and so Slovenia was not considered as part of the area's maritime border area.

are perceived as a problem for cross-border cooperation (35% of the respondents seeing this as a problem in the Italy-Croatia maritime border area, placing it slightly higher than the mid-range of all EU internal borders), especially amongst the Italian respondents (50%).

Language differences are also considered as a problem for cross-border cooperation by 59% of the respondents (slightly above the EU average share of 57%).

Institutional obstacles

The study of legal and administrative obstacles at EU internal borders[6], conducted by the European Commission in 2016, does not cover internal maritime borders. Therefore, at this stage, it is not possible to provide an informed, detailed assessment of such barriers at maritime borders. However, the Border Needs study assessed that there are less than average normative and institutional obstacles on the maritime border of Italy-Croatia compared to other border regions. Similarly, legal/administrative differences are not perceived as a problem for cross-border cooperation.

Regarding the quality of government (combined EU QoG Index)[7], all regions in the area are below the EU average, set at "0". They range between -1.98 (Abruzzo) and -0.46 (Veneto and Emilia-Romagna) with Slovenia assessed at the national level as -0.29.

ORIENTATIONS:

– Consider supporting increased knowledge of the languages in the cross-border region.

– Focus on the identification and mapping of the legal and administrative obstacles to further cross-border interaction and concentrate on those that can be alleviated by a contribution from Interreg. Consider possible solutions based on the B-solutions method[8]. This type of activities could be supported under the new specific objective for better Interreg governance.

4.1.3. GROWTH, COMPETITIVENESS AND CONNECTIVITY

There is divergence on many indicators in development characteristics and socio-economic conditions within the Italy-Croatia-Slovenia maritime border area. In general, although not on all indicators, the northern Italian coastal regions perform (relatively) better than the less-developed southern regions of Italy, the region of Western Slovenia and the regions of Croatia.

Overall economic performance

Overall, GDP per capita in the Italy-Croatia-Slovenia maritime border area (NUTS2) is 13% below the EU average, with big regional differences within this area (ranging between 57% below and 25% above the EU average).

In terms of the overall size of the economies in the Italy-Croatia-Slovenia maritime border area, based on total regional GDP (2017, NUTS2 level), three of the nine regions

[5] Note that the data on perceptions of cultural obstacles only cover current border programmes, and so Slovenia was not considered as part of the area's maritime border area.
[6] Datasource – Border Needs Study (Annex 2. Map 17)
[7] Datasources: European Quality of Government Index
[8] https://www.b-solutionsproject.com/

- Veneto, Emilia-Romagna and Puglia - dominate the area, and together account for two-thirds of the total GDP.

Labour productivity[9] is below the EU average across the regions with the exception of three Italian regions (Veneto, Friuli-Venezia Giulia and Emilia-Romagna) that are between 5% and 10% above the EU average. The two Croatian regions are substantially lower, with labour productivity levels at just 37-38% of the EU average, with the region of Western Slovenia at 68% of the EU average being below all Italian regions in the area.

Innovation

According to the cluster analysis of ESPON Territorial Review Knowledge-Economy (KE), two Italian regions, Veneto and Emilia-Romagna are 'competitive and KE-related economies', four other Italian regions (Molise, Abruzzo, Marche and Friuli-Venezia Giulia) are 'less competitive with potential in KE economy'. The Italian region of Puglia, the region of Western Slovenia and both Croatian regions (Adriatic and Continental) are 'less competitive economies with low incidence of KE'.

In terms of R&D intensity[10], with some variation within the area, only one region, western Slovenia is slightly above the EU average. All other regions are below the EU average[11].

The share of human resources in science and technology (measured as a percentage of the economically active population) is well below the EU average of 46%, at 35% (unweighted average) although the region of Western Slovenia is above the EU average with a share of 51%.

Similarly, the shares of employment in knowledge-intensive services (2017 data) for the Italy-Croatia-Slovenia maritime border area is at 34%, below the EU average of 40%. The highest share is in Western Slovenia, which is level with the EU average.

The unweighted average for the Italy-Croatia-Slovenia maritime border area is 54 international patents applications[12] per annum per million inhabitants, this being just above half of the EU average. The level of international patent applications is very low in the regions in Croatia, with the highest level being in Split at just four applications per annum per million inhabitants. It is also relatively low in the Italian regions of Molise, Abruzzo and Puglia and in the Slovenian region of Obalno-Kraska, at below 30% of the EU average.

In contrast, three NUTS3 regions in Italy are above the EU average. The highest level by far is in Pordenone in Friuli-Venezia Giulia, with a level more than 6 times higher than the EU average. Ferrara in Emilia-Romagna and Padova in Veneto are also above the EU average.

[9] 2016, NUTS 2 level data measured in GVA per hour worked
[10] measuring R&D as a percentage of GDP, at NUTS 2 level, 2015 data
[11] EU average between 2014 and 2016: 2.03 %
[12] international patent applications in a region has been used as one indicator of innovation activity and of innovation potential

Digitisation

With regard to the digital economy, regional level data is available in respect of some indicators at NUTS 2 level for Italy, Croatia and Slovenia[13].

There are relatively low levels of households with broadband access, with the average for the Italy-Croatia-Slovenia maritime border area overall being at 79% (EU average of 85%). However, there is a cross-border divergence in performance: the region of Western Slovenia and most Italian regions (Veneto, Friuli-Venezia Giulia, Emilia-Romagna, Marche and Abruzzo) are all between 80-84%, while the two regions in Croatia and the Italian regions of Molise and Puglia are in the range of 70-79%.

The level of households with internet access at home is very high, being equal to or above the EU average of 97% in all the regions (except the Italian regions of Molise at 95% and Marche at 96%). As for daily internet use, the unweighted average for the Italy-Croatia-Slovenia maritime border area is at 67% below the EU average of 76%, Puglia and the Croatian regions (Adriatic Croatia at 56% and Continental Croatia at 58%) are in the lowest category in the EU on this indicator.

In terms of the use of e-commerce by people aged 16-74, the Italy-Croatia-Slovenia maritime border area has an unweighted average level of 34%, very significantly below the EU average share of 57%. Use of e-banking is also substantially below the EU average share of 51%, with the overall unweighted average for the Italy-Croatia-Slovenia maritime border area being at just 32%.

In terms of digitisation and government, only national level information is available for most indicators[14]. Therefore, it is not possible to make any informed observations with regard to the situation at the regional level in the border areas, although, in comparison with EU averages, Italy and Slovenia ('Non-consolidated eGovernment') and Croatia (unexploited eGovernment') do not perform well on digitisation and government.

Regarding e-commerce overall, and on web-sales specifically (both domestically and to other EU countries) both Italy and Croatia score below the EU average while Slovenia scores below the EU average on web sales domestically but slightly above the EU average on web sales to other EU countries.

Enterprises/entrepreneurship

According to the 'Regional Competitiveness Index' (RCI) all regions with one exception in the area are rated below the EU average on regional competitiveness overall. The exception is the region of Western Slovenia, which is rated 13% above the EU average.[15]

The combined scoring for all indicators shows that the Italy-Croatia-Slovenia maritime border area is 31% less competitive than the EU average. Other than Western Slovenia, even the most competitive regions, Veneto, Friuli-Venezia Giulia and Emilia-Romagna are at 18% or less below the EU average. The least competitive regions, at more than 40% below the EU average, are the Italian region of Puglia and the Croatian regions (Adriatic and Continental).

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[13] Datasource: Eurostat (2017)

[14] Datasource: EC National Interoperability Framework Observatory (NIFO) factsheet, Digital Economy & Society Index (DESI)

[15] Datasource: European Regional Competitiveness Index 2019

Transport (passenger transport, maritime shipping)

Maritime/Shipping: there are substantial numbers of sea ports, with all regions of the area having multiple ports.

- *goods/freight shipping*: the ports in the Italy-Croatia-Slovenia maritime border area are handling goods from Europe, but also very large shares of goods from other major world regions (Africa, American and Asia/Australasia).
- *seaborne passenger traffic*: the area has a very large number of main ports handling passenger traffic, 24 of these are in Croatia, 5 are in the Italian regions. and one is in Slovenia. Of these 30 main ports, only 10 handle cross-border passenger ferry traffic between Italy and Croatia. Three of these cross-border main ports are in Italy (Ancona, Bari, Brindisi), one in Slovenia (Piran) and six in Croatia (Dubrovnik, Porec, Pula, Split, Stari Grad and Zadar).

A further consideration in respect of maritime/shipping is the issue of maritime safety. In its latest overview of marine casualties and incidents the European Maritime Safety Agency (EMSA) has noted that in total there were over 100 marine casualties and incidents reported to EMSA in the period 2011-2017 in the waters of the Adriatic Sea[16].

Tourism

In 2017, Adriatic Croatia, Veneto and Emilia-Romagna were amongst the top 20 most popular tourist destinations in the EU. This illustrates that tourism, and especially coastal tourism, is one of the most important sectors of the economy in the region, but it is also strongly concentrated both geographically (in Adriatic Croatia, coastal Slovenia and Veneto) and seasonally (May-September).

Based on regional data showing total numbers of tourist nights (all forms of accommodation) per thousand inhabitants in the region, the unweighted average for the Italy-Croatia-Slovenia maritime border area is very high, almost double the EU average. Two regions have extremely high ratios, with Adriatic Croatia almost 9.5 times the EU average (59,004 tourist nights per annum per thousand inhabitants) and Veneto at more than double the EU average (14,097 tourist nights per thousand inhabitants).

The only regions in the Italy-Croatia-Slovenia maritime border area where this ratio is below the EU average are Molise at 23%, Continental Croatia at 25%, Puglia at 60% and Abruzzo at 75% of the EU average.

Foreign tourism is important for the Italy-Croatia maritime border area, but a small majority of tourist nights are still taken up by domestic tourists (unweighted average overall of 54% domestic, 46% foreign).

Sustainable Blue Economy

A major issue to be considered in relation to the economic development of the Italy-Croatia maritime border area is the potential for developing a sustainable blue economy. The European Commission has recently published a major report, ‘The EU Blue Economy Report 2019’, and this provides access to valuable data and information, although the vast majority of the data and analysis undertaken is at the national level.

- Sustainable Blue economy in Italy:

[16] Datasource: EMSA Annual Overview 2018

- The blue economy’s share in national gross value added (GVA) is 1.3%, very slightly above the share of 1.2% in 2009, although the total contribution has risen slightly to EUR 19.8 billion in 2017 (EUR 17.2 billion in 2009). Coastal tourism made the greatest contribution to GVA in the blue economy in Italy (EUR 7.1 billion), followed by maritime transport (EUR 3.9 billion), marine living resources, port activities and shipbuilding/repair (between EUR 2.7 billion and EUR 2.1 billion).
- There has also been a slight fall in both absolute levels of employment in the blue economy in Italy and the share of blue economy employment of national employment in the period from 2009-2017 (from 2% to 1.8%). Around half of all blue economy employment was in coastal tourism in 2017, followed by employment in marine living resources, in marine transport, in port activities and in shipbuilding/repair.

- Sustainable Blue economy in Croatia:

  - The blue economy’s share in national GVA is 7.7%, above the share of 6.2% in 2009, and the total contribution has risen to EUR 3.11 billion in 2017 (EUR 2.37 billion in 2009). Coastal tourism made by far the greatest contribution to GVA in the Blue economy in Croatia (EUR 2.5 billion), followed by maritime transport (EUR 175 million). The growth in GVA contribution since 2009 has come solely from growth in coastal tourism and extraction of marine resources (living and non-living), while port activities, shipbuilding/repair and maritime transport all saw a decline in GVA in this period.
  - However, there has been a very slight decrease in absolute levels of employment in the blue economy in Croatia in the period from 2009-2017. In 2017 the blue economy employed 144 200, compared with 150 500 being employed in blue economy in 2009. Around two-thirds of all blue economy employment, 107 800 jobs, was in coastal tourism in 2017. In the period since 2009, the greatest rate of decline in employment has been in shipbuilding/repair, which fell from 17 700 jobs to just 9 700 in 2017.

- Sustainable Blue economy in Slovenia:

  - The blue economy is far less important to the Slovenian economy than in either Italy or, particularly, Croatia. The share of the blue economy in national GVA in Slovenia is just 0.7%, unchanged from the share in 2009, while the total contribution has risen to EUR 262 million in 2017 (EUR 209 million in 2009). Port activities tourism made by far the greatest contribution to GVA in the Blue economy in Slovenia (EUR 135 million), followed by shipbuilding/repair (EUR 39 million) and coastal tourism (EUR 32 million).
  - However, there has been a very slight decrease in absolute levels of employment in the blue economy in Slovenia in the period from 2009-2017. In 2017 the blue economy employed 6,000, compared with 6,500 being employed in blue economy in 2009. Around one-third of all blue economy employment, 2,200 jobs, was in port activities in 2017, with 1,200 jobs in coastal tourism.

ORIENTATIONS:

- Promote the creation of joint attractions/joint products (incl. accommodation, tours, sights activities and services) focusing on sustainable tourism with a positive impact on the Adriatic-Ionian Sea basin area. This will require close cooperation between the tourism industry actors, national/regional tourist boards and joint marketing and product development.
- Support cross-border actions to boost a sustainable blue economy with interventions in key areas, such as innovation/RTD in clean maritime shipping and renewable energy. Ensure complementarities with the mainstream programmes and the ADRION transnational programme under Policy Objective 1.
- Support cross-border innovation on core areas of comparative advantage, such as creative industries and sustainable (coastal) tourism, using the smart specialisation strategies as a point of departure.
- Focus on the transfer of application-oriented (maritime) innovation across borders, as it is crucial for the development of the economic area.
- Support cross-border cooperation between SMEs and micro-enterprises in their internationalisation activities to move up in the global value chains, including by joining cooperation networks and inter-regional clusters. Consider facilitating their participation in Interreg by setting up a Small Project Fund for export orientation of SMEs and micro-enterprises.
- Focus on the programme areas with low level of hinterland accessibility, land-sea interaction to ensure that the potential benefits of maritime connectivity are maximised by being linked effectively into current and planned land based networks and connections (soft actions, small infrastructure). Complementarity with the national/regional programmes should be ensured.
- Continue supporting measures improving maritime safety of shipping (including service ships, fishing vessels and other forms of shipping).

4.1.4. GREENER, LOW CARBON ECONOMY

Pollution

In respect of the environmental impact of tourism, a recent study has identified that the Adriatic Sea, along with other areas of the Mediterranean Sea area, face substantial issues of air pollution caused by emissions from shipping, both in general and in particular from cruise shipping. Cruise ships raise emissions of sulphur and nitrogen oxide as well as particulate matters, with the potential impacts being particularly significant as cruise ships typically operate close to coastal areas and have long port calls, hence they have a disproportionately high effect on air quality in ports and coastal areas. High-speed ferries and international shipping are responsible for significant air pollution too. Moreover, whilst there are Sulphur Oxides Emissions Control Areas (SOx ECAs) and Nitrogen Oxides Emissions Control Areas (NOx ECAs) currently in place in some EU territorial waters (North and Baltic Seas and English Channel), these are not yet in force in the Adriatic/Ionian Region.[17] Notably, these Countries are engaged under

[17] Datasource: 'One Corporation to Pollute Them All, Luxury Cruise emissions in Europe', published June 2019 by NGO Transport & Environment (transportenvironment.org).

the Barcelona Convention framework towards the establishment of a SOx ECAs in the Mediterranean Sea as a whole.

It is also recalled that the deposition of air pollutants in waters is a harm to biodiversity and hence fisheries. Air pollution is also the cause of monuments deterioration and buildings degradation as well as it affects visibility in many areas interested by tourism, therefore actions on air pollution have benefits on health but also on economic activities related to fisheries and tourism.

Energy transition

In terms of renewable energy potential[18] the Italy-Croatia-Slovenia maritime border area is assessed as having average to relatively low potential for wind energy, both onshore and offshore, with the highest potential assessed to be in Puglia and parts of the Croatian coast. Solar energy has high potential, particularly in the coastal regions of southern Italy (Puglia and Molise) and southern Croatia (Split-Dalmatia and Dubrovnik-Neretva).

There is some potential within parts of Italy (particularly in Veneto, Friuli-Venezia Giulia, Marche and Puglia) and in western Slovenia for biomass from straw. Similarly, there is some wave power potential in all areas of the Italy-Croatia-Slovenia maritime border area although in comparison with other maritime areas of the EU this is relatively low. Furthermore, there is some limited hydro-power (with specific sites identified in all countries) and geothermal potential in several parts of the Adriatic coastal regions of Italy.

Natural and protected areas, biodiversity, water bodies

There is a large number of Natura 2000 sites and nationally designated areas of protection, including several ‘Ramsar’ (wetland) sites in the Italy-Croatia-Slovenia maritime border area[19], thus having high potential for shared management of natural resources. The Wilderness Quality Index (notably in Croatia and Slovenia) is also ‘high’.

The level of invasion by invasive alien plant species is high (greater than 5%) in several locations throughout the area, particularly in several Italian coastal areas.

There are multiple rivers and watercourses in the area, all of which flow into the Adriatic Sea. In terms of water quality, data was only available at NUTS1 level, and not even at this level for all regions. The border area includes classified water bodies that are affected by point and/or diffuse pressures in rivers and lakes, and that have less than good ecological status or potential (i.e not having ‘good chemical status’). The water quality is the worst in the Italian regions of Puglia, Molise and Abruzzo.[20]

Climate change

Parts of the Italy-Croatia-Slovenia maritime border area have been assessed as having medium-to-very high environmental sensitivity to climate change[21], the Italian regions of Friuli-Venezia Giulia and Veneto and the Slovenia coastal region having the highest risk.

[18] Datasources: ESPON, Biomass Futures, Pan-European Thermal Atlas
[19] Datasources: European Environment Agency (EEA), Ramsar sites information service (RSIS)
[20] Datasource: EEA. Note that the data consulted did not cover Croatia on the indicator of regional quality of water bodies.
[21] Datasource: EEA

The Italy-Croatia-Slovenia maritime border area (within the broader Mediterranean region) is facing challenges such as temperature rise larger than the EU average, decrease in annual precipitation, decrease in annual river flow, increasing risk of biodiversity loss, increasing water demand for agriculture, expansion of habitats for southern disease vectors, decrease in hydropower potential, etc.

Furthermore, there are a number of areas with potential significant flood risks, particularly in the Croatian coastal regions. With regard to potential coastal flooding, data showing trends in absolute sea level changes in the period 1993-2015 illustrate that most of the Adriatic Sea areas have had high levels of increase in sea level. Most locations having European tide-gauge stations in the Adriatic Sea also show upward trends in relative sea level in the period 1970-2015.

There are relatively significant increases in the frequency of drought expected in the medium- to long-term future, with expected increases being highest in the most southerly regions (Puglia in Italy). The regions in the south of the Italy-Croatia-Slovenia maritime border area also face higher levels of projected forest fire danger.

ORIENTATIONS:

- Engage in a dialogue/coordinate with other Interreg programmes in the Adriatic and Ionian Sea basin area in order to coordinate actions to protect biodiversity with an effect on major parts of the sea basin (e.g. complement measures on marine litter). Ensure complementarities with the mainstream and transnational ADRION programmes under policy objective 2.
- Map the needs for local cross-border cooperation to fight pollution. Continue to support measures to protect and restore biodiversity and to remedy effects of climate change.
- Explore the ways of joint management of water and marine environment and protected species. In the specific context of maritime CBC it may be particularly valuable to focus on areas located in coastland areas or offshore.
- Consider supporting cross-border actions linked to strengthening renewable energy production, in particular based on solar energy.

4.1.5. EMPLOYMENT, EDUCATION, HEALTH AND INCLUSION

Employment/labour market

Overall, the (unweighted) employment average rate for 2018 for people aged 15-64 is 61.7%, well below the EU average of 69%. The highest rates of employment are in Western Slovenia (72.7%) and Emilia-Romagna (69.6%) and the lowest rate is in Puglia (45.5%).

Youth employment rates (i.e. rates of those aged 15-34 years old not in education or training) in 2018 were substantially below EU average rate of 74.6% in all regions other than Adriatic Croatia (at 72.3% only slightly below the EU average) and Western Slovenia (at 84.5% substantially above the EU average). The unweighted average for the Italy-Croatia-Slovenia maritime border area overall is 59.9%. The lowest rates are in the Italian regions of Puglia at 34.6% and Molise at 40.8%.

In terms of the overall unemployment rates for 2018, there are differences within the area. Only the Italian regions of Emilia-Romagna (5.9%), Veneto (6.5%) and Friuli-Venezia Giulia (6.7%) and the region of Western Slovenia (4.8%) have unemployment rates below the EU average rate of 6.9%. The Croatian regions have unemployment rates slightly above the EU average - 9.4% in Adriatic Croatia and 8% in Continental Croatia, while the highest unemployment rates in the area are in the Italian regions of Puglia (16.1%), Molise (13%) and Abruzzo (10.8%).

In Croatia, during the years between 2009 and 2015, unemployment increased. Shipyards, which employed the largest number of workers, have disappeared or are in the process of restructuring and reorganisation. Unemployment has significantly decreased in the period between 2016 and 2018. Seasonal factors influence the unemployment figures each year especially along the coast. Unemployment usually increases until February, which is followed by significant decrease during the summer season. The greatest demand for workers exists in tourism, accommodation and hospitality services and in wholesale and retail trade.[22]

Furthermore, due to the geographical position of Croatia, which is located at the crossroads of major European land and sea routes, the population has always engaged in seafaring and other economic activities related to the sea. Consequently, this is an area with highly-developed shipping, shipbuilding, and port and tourist activities that are hugely important sectors for the region.

In Italy the picture is more diversified. For instance, the economy in Veneto is characterised by SMEs, in particular manufacturing, mechanical, textile, and agri-food companies, as well as tourist enterprises, and includes geographical clusters of specific manufacturing operations (textiles, goldsmiths, eyewear, furniture, etc.).

Other traditionally important economic activities in the Italy-Croatia-Slovenia maritime cross-border area are fisheries, aquaculture and shipbuilding.

Labour market productivity[23] is relatively low, below the EU average, in both regions of Croatia, in Western Slovenia and in the Italian regions of Abruzzo, Molise, Puglia and Marche. In contrast, it is above the EU average in the Italian regions of Veneto, Friuli-Venezia Giulia and Emilia-Romagna.

On wage indicators, data was only available at the national level. This shows a clear divergence between Italy, which has an average wage level slightly above the EU average, Slovenia, with average wage levels at around 75% of the EU average, and Croatia, which has average wage levels far below the EU average. Average wages are at EUR 20 400 in Italy, EUR 14,200 in Slovenia and EUR 9 000 in Croatia. (2017 data).

Cross-border travel-to-work

On the basis of the Eurobarometer survey of all EU internal borders, the Italy-Croatia maritime border area has one of the lowest shares of respondents in the EU indicating that they have travelled to their cross-border neighbour for work or business purposes – just 5%.[24] This places the border in 49th position from 54 border areas. Only 1% of respondents from Italy indicate that they had travelled cross-border to Croatia for work or business, while the figure is 10% for Croatian respondents in respect of travel to Italy.

[22] EURES

[23] 2015 data, measured by GVA per person employed

[24] Note that the Eurobarometer survey only covered areas with existing maritime cross-border programmes and so it did not cover the maritime borders with Slovenia.

Access to services of general interest, including health

There are significant variations between the availability of core services of general interest (SGIs) (hospitals, primary schools and train stations)[25] within the Italy-Croatia-Slovenia maritime border area with very high concentration and relatively easy accessibility to those services in several coastal areas of Italy, particularly in the northern part of the coastline. Nevertheless, even within areas with relatively high concentration of services, there are still some inner peripheries suffering from poor access to core SGIs.

In terms of health outcomes, life expectancy at birth shows that the unweighted average for the Italy-Croatia-Slovenia maritime border area as a whole is at 83 years, 2 years above the EU average of 81. All regions in Italy are equal to, or above, the EU average, with the highest life expectancy at birth being 84 years (which is the level in the Italian regions of Abruzzo, Puglia, Veneto, Friuli-Venezia Giulia, Emilia-Romagna and Marche). Life expectancy is below the EU average in the Croatian regions at 79 years in Adriatic Croatia and 78 years in Continental Croatia. Life expectancy in Western Slovenia is equal to the EU average at 83 years.

With regard to cross-border travel to use public services, only 4% of those in the Italy-Croatia programme area have travelled cross-border to use public services.[26] This a very low figure, placing it at the bottom end of the range of all EU internal border regions.

ORIENTATIONS:

– Develop/Support targeted measures to, for instance, harmonise certification and skills requirement for similar occupations with focus on specific competences of importance to the maritime cross-border region (e.g. blue growth).

[25] Datasource: ESPON, maps in the ESPON PROFECY Final Report 2017, Annex 7

[26] The survey of cross-border travel to use public services was part of the Eurobarometer survey. See note above regarding the focus of this survey.

4.2. GREECE-ITALY

4.2.1. ANALYSIS OF THE BORDER AREA

- The Greece-Italy cross-border border area (on the basis of the proposed programme area) counts 7.27 million inhabitants overall, but mainly living on the Italian side (1.2 million are in Greek regions and 6.07 million in the proposed eligible areas in Puglia, Basilicata and Calabria).
- Population is declining on the Greek side (up to 4% fall in Western Greece between 2007 and 2017) and slightly increasing on the Italian side. Population is ageing across the border area, compared to EU averages.
- More than half of the population lives in rural areas, notably in Greek regions and in Basilicata and Calabria, while Puglia is more densely populated and counts some major urban centres.
- GDP per capita is below the EU average and overall economic performance is poor in all regions and for all indicators related to innovation, employment, education.
- Cross-border accessibility within the Greece-Italy area is poor (no regular flights, long and seasonal navigation routes). Land-sea accessibility is better developed on the Italian side.
- Natural and cultural heritage is a very strong common asset. Tourism is an important leverage for economic development in the area, although mainly coastal and seasonal.
- The quality of coastal and marine environment is heavily affected by the pressure and the pollution due to human activities and navigation.
- Institutional and cultural barriers are perceived as strong among the population but the level of mutual trust is high.[27]
- Heritage from old common history of Magna Graecia and beyond, Greek minorities exist and are active across the Italian Ionian area (besides Puglia) but in general, the practice of bilingualism does not seem a diffuse phenomenon. The presence of Italian communities in Greece is more concentrated in Athens and Eastern regions.

History of cooperation

Cooperation between Greece and Italy under Interreg started in early 1990's and has been consolidating over the years. Compared to previous periods, the Greece-Italy cooperation under 2014-2020 moved towards a more strategic approach focusing on a few core priorities - integrated environmental management, sustainable multimodal transports and innovation - and major types of investment in order to maximize their expected impact (i.e. half of the total programme allocation was dedicated to support five projects having a budget from 5 up to 20M EUR).

It is too early to assess the actual results of those strategic projects. However, it can be noted that while at the programming stage the focus was on integrated cross-border planning, at the implementation stage it seems that the focus shifted to substantial infrastructural works, where the added value of cross-border cooperation could be less

[27] Although it should be noted that the principal studies into cross-border attitudes or perceptions, and cultural or institutional barriers, covered only the current programme area and not the proposed area including parts of Basilicata and Calabria.

evident. Specific attention should be given to the evaluation of this new strategic approach of cooperation to possibly improve and reinforce it in the future.

4.2.2. OBSTACLES AND BARRIERS

Physical obstacles/transport

Considering **physical obstacles**, the Border Needs Study has classified the Italy-Greece maritime border as having "more than average" difficulty in accessibility as a result of physical obstacles. Indeed, the value given for this indicator was one of the highest of any EU internal border, land or maritime, in the study.

The ESPON analysis of the European ferry network (2016 data) identified that there are relatively few cross-border routes operating within the Greece-Italy programme area, with only two principal Italian ports providing cross-border routes between eligible areas within the programme area. The cross-border sailings are concentrated in summer, long in duration, with no route being less than six hours and most routes being substantially longer than this. Besides, there are no regular flights operating within the programme area and a limited number of charter flights.

In terms of perceptions of accessibility (linked to both physical or geographical barriers and transport infrastructure), high levels of concern were reported about accessibility as a problem for cooperation in both programme areas. 48% of respondents in the current Greece-Italy programme area viewed accessibility as a problem, this placing it 2nd highest from all 54 EU internal border regions.

Cultural obstacles

Available data concerning barriers connected with **cultural differences** and **socio-cultural attitudes** between the regions in the current programme area indicate that cultural barriers and differences are perceived as a problem by 37% of the respondents (close to EU internal borders average). In particular, **language differences** are considered by a strong majority of respondents (68%) as a problem for cross-border cooperation, well above the EU average.

Nevertheless, it is important to mention the specific indicator of the Bilateral Trust Index. The Border Needs study assessed that there are higher than average levels of bilateral trust on the Greece-Italy maritime border. This is clearly an important asset for building solid bases to cooperation.

Institutional obstacles

The study of legal and administrative obstacles at EU internal borders, conducted by the European Commission in 2016, does *not* cover internal maritime borders. Therefore, at this stage, it is not possible to provide an informed, detailed assessment of such barriers at maritime borders. This gap should be addressed (see general section on governance).

In terms of perception, the share of respondents seeing **legal or administrative differences** as a problem is well above the EU average in the Greece-Italy border area (56%). The Border Needs study assessed that there are more than average normative and institutional obstacles, compared to other border regions, on the maritime border of Greece-Italy.

ORIENTATIONS:

- Analyse the existing border obstacles to further cross-border interaction in sectors of priority for the future programme. Identify obstacles that can be tackled by cross-border cooperation and those that need a larger multilateral problem-solving.
- Develop possible approaches to tackle those obstacles, including "b-solutions"[28] type of actions. The new specific objective of Better Interreg Governance could provide support.

4.2.3. GROWTH, COMPETITIVENESS AND CONNECTIVITY

Overall economic performance

Available data (at the NUTS 2 level only) indicates very weak GDP per capita across the area, at 41% below the EU average. All six regions, from both Italy and Greece, are in the lowest category in Europe on this indicator, at levels below 75% of the EU average. Moreover, in the period from 2007 to 2016 all of the regions in the Italy-Greece maritime border area have seen a decline in GDP per capita relative to the EU average.

As regards the overall size of the economies, based on total regional GDP (2017), the regions of Puglia and Calabria dominate the area, accounting for 80% of the total area GDP, with Puglia alone accounting for 55%. The largest regional GDP in the Greek regions is in Western Greece, at 6% of the total Italy-Greece maritime border area GDP, with both Epirus and the Ionian Islands accounting for just 5% combined of the area GDP.

Economy in the area is mainly dominated by the tertiary sector. Tourism, maritime/shipping and blue economy are particularly relevant in the maritime cross-border cooperation perspective between Greece and Italy.

Innovation

Based on the ESPON Territorial Review of Knowledge-Economy (KE) cluster analysis at NUTS 2 level, all regions in the area are assessed as "less competitive with low incidence of KE". Similarly, the Regional Innovation Scoreboard for 2019 assessed that the area has no regional innovation leaders or regions with strong innovation performance. Epirus, Western Greece, Puglia, Basilicata and Calabria are seen as "moderate performers" on innovation, the third of four identified levels. The Ionian islands, Western Greece and Basilicata registered the biggest improvements in relative performance in innovation in the period 2011-2019.

The levels of R&D intensity are in general extremely low in the whole area. The share of human resources working in science and technology as well as the shares of employment in knowledge-intensive services is very low (below 30% on average) with no significant differences between Italy and Greece (all regions are below the EU average). The levels of international patent applications are also very low or non-existent in some Greek NUTS3 regions and are also very low in NUTS 3 regions in Puglia, Basilicata and Calabria.

[28] https://www.b-solutionsproject.com/

Digitisation

With regard to digital economy, available data only at national and/or NUTS2 overall shows that the Greece-Italy area is lagging behind in comparison with EU averages for all indicators (daily internet use, use of e-banking services, e-Government, digitisation in business and commerce). Some differences exist between the Italian regions (generally better performing) and the Greek regions but they are not substantial.

Enterprises/entrepreneurship

The combined scoring for all indicators of the Regional Competitiveness Index (RCI) ranks all regions in the area far below the EU average (i.e. more than 50% less competitive than the EU average) for regional competitiveness overall and, on most indicators (institutions, macroeconomic stability, infrastructure, labour market efficiency, and technological readiness) the gap is substantial (i.e. lower than 40% of the EU average).

Transport - Maritime/Shipping

Most available data on seaborne transports and freight shipping are at national level and do not differentiate the Adriatic-Ionian "sea-basin" area that is generically included within the Mediterranean Sea. Data shows a substantial difference between Greece, handling seaborne freight at almost 17 tonnes per inhabitant, and Italy at 7.8 tonnes per inhabitant. More than 50% of seaborne transport of freight from main ports is non-EU28 freight. A large majority of total short-sea shipping (SSS) of freight from ports in Italy (79%) and Greece (78%) is with other ports in the Mediterranean Sea Region, the Black Sea being the second-largest destination.

In terms of seaborne passenger traffic, the level is extremely high, including both international and domestic ferry routes. Greece had 70 million passengers in 2017, this being equal to a ratio per inhabitant more than 8 times higher than the EU average. The ratio per inhabitant was 1.5 times the EU average in Italy, with over 73 million passengers. Above 95% of seaborne passengers in both countries in 2017 were non-cruise passengers.

The Greece-Italy maritime border area itself has 15 ports (3 in Puglia, 1 in Calabria the rest in Greece) that handled more than 200,000 passengers in total (domestic and international routes) in 2017. Only five handle any material cross-border passenger ferry traffic within the Italy-Greece programme area: two in Italy (Bari, Brindisi) and three in Greece (Igoumenitsa, Patras and Kerkyra).

With regard to cross-border ferry routes connecting ports within the specific Greece-Italy programme areas, there are several operating, although all routes are very seasonal and involve long sailing times (at least six hours).

Maritime and hinterland accessibility (assessing both sea-side and land-side connections of the ports based on ESPON analysis) is uneven in the area, i.e. relatively high in the Italian ports but much lower hinterland accessibility in the Greek ports (due to the relatively low population and relatively poor general accessibility).

A further consideration in respect of maritime/shipping is the issue of **maritime safety**. In its latest overview of marine casualties and incidents the European Maritime Safety Agency (EMSA) has noted that in total there were over 100 marine casualties and incidents reported to EMSA in the period 2011-2017 in the waters of the Adriatic Sea and over 1,000 in the Ionian Sea.

Tourism

Tourism is one of the most important and growing sectors of the economy in the programme area and contributes up to 10% of the total GDP, but it is also strongly **concentrated both geographically** (on Ionian Islands mainly and Foggia and Lecce provinces as well) **and seasonally** (August and July).

Regional data reporting the total number of tourist nights per thousand inhabitants indicates that Greece-Italy has a score more than double the EU average, but with a relevant difference among regions (i.e. Ionian Islands having 10 times more than the EU average while Epirus in Greece is equal to the EU average and all other regions (Western Greece and the 3 Italian regions) are below 75% of the EU average).

The average share of tourist accommodation nights taken by foreign tourists is at 41% for the whole area, slightly below the EU average of 49%. The situation is very different between the Greek regions and the Italian regions. All three of the Greek regions are above the EU average with the Ionian Islands in particularly having very high shares of foreign tourists (86%). All three of the Italian regions have shares of foreign tourists below 25%, with Basilicata having the lowest with only 10% foreign tourists.

As regards the territorial dimension, **coastal tourism** is the most important category in the whole area with the unweighted average share of nights spent in tourist accommodation establishments in coastal localities being 82% for the Italy-Greece area overall. Unsurprisingly, the share of nights spent in tourist accommodation establishments in coastal localities is particularly high in the Ionian Islands (100%), Calabria (92%) Puglia (89%) and Western Greece (85%). (2018 data).

Bedroom occupancy rates vary substantially between almost 60% in the Ionian Islands and below 40% (so in the lowest of the five EU categories on this indicator) in the Greek regions of Epirus and Western Greece and the Italian regions of Puglia, Basilicata and Calabria. More generally, while the statistics on tourism over the past five years show an increasing trend in the whole area, it should be noted that in absolute figures, the nights spent in tourist accommodations in the Greece-Italy areas are substantially lower compared to some of the other coastal regions in the Adriatic/Ionian area (i.e. for 2018 data there were 15.4 million nights in Ionian Islands, 15.2 million nights in Puglia, 9.3 million nights in Calabria, 2.7 million nights in Epirus, 2.6 million nights in Basilicata and 2.1million nights in Western Greece compared with 84.8 million nights in Adriatic Croatia, 69.2million nights in Veneto and 40.7million in Emilia-Romagna).

Sustainable Blue economy

A major issue to be considered in relation to the economic development of the Greece-Italy maritime area is the potential for developing a sustainable blue economy. The European Commission has recently published a major report, "The EU Blue Economy Report 2019", which provides access to valuable data although mainly referring to the national level. Information of relevance in respect of the Greece-Italy maritime border area shows different, and opposite, trends in Greece and in Italy.

In Greece, the blue economy’s share in national gross value added (GVA) is 3.8%, amounting to just over EUR 6 billion in 2017. It has substantially increased the share from 2.2% compared to 2009. Coastal tourism made the greatest contribution to GVA in the Blue Economy in Greece (EUR 3.34 billion), followed by maritime transport (EUR 1.02 billion), port activities (EUR 767 million) and marine living resources (EUR 637 million).

There has also been a substantial increase in employment in the blue economy in Greece in the period from 4% in 2009 to 9.4% in 2017. In 2017 just over 347 000 were employed in the blue economy (whereas in 2009 less than 180 000 were employed), with the vast majority of these being in coastal tourism (266,300). There were also reasonable levels of employment in marine living resources (38 100), maritime transport (17.700) and port activities (15 500). It is notable that the positive impact of the Blue Economy on Greek GDP and employment has happened at a time that the Greek national economy has faced substantial issues.

In Italy, the blue economy's share in national GVA in 2017 is 1.3% (EUR 19.8 billion), very slightly above the share of 1.2% in 2009. Coastal tourism made the greatest contribution to GVA in the Blue Economy in Italy (EUR 7.1billion), followed by maritime transport (3.9bn EUR), marine living resources (EUR 2.7 billion), port activities (EUR 2.2 billion) and shipbuilding/repair (EUR 2.1billion).

There has also been a slight fall in both absolute levels of employment and share of blue economy employment of national employment, from 448 200 (2% of total) in 2009 being employed in blue economy to 413 100 and 1.8% in 2017. Around half of all blue economy employment was in coastal tourism in 2017, followed by 74 100 in marine living resources, 49 900 in marine transport and 35 200 in both port activities and shipbuilding/repair.

ORIENTATIONS:

– Select a limited number of topics of common interest to focus the future cross-border cooperation in support of innovation and clusters of enterprises. Priority should be given to those topics having an identified maritime profile and boosting a sustainable blue economy. The smart specialisation strategies could be considered as a starting point.

– Explore the possibility to develop cross-border e-government services that could better serve cross-border interactions (i.e. inter-modality of transport, maritime safety, risks management).

– Improve cross-border connectivity exploring possible multi-modal schemes. Consider complementarities and synergies with investments under national/regional frameworks.

– Promote sustainable approaches to tourism development with a positive impact on the marine environment and based on the strengths of the region (i.a. cultural heritage).

– Identify and develop complementarities with investments in relevant priority objectives under the Adrion TN programme.

4.2.4. GREENER, LOW CARBON ECONOMY

Pollution

Some information in the UN Environment Programme's reporting is specifically relevant for the Greece-Italy programme area. The Adriatic and Ionian Seas include areas with high and very high risks of hypoxia; hypoxia being the condition where oxygen dissolved in water is reduced in concentration to a level where it becomes detrimental to aquatic organisms living in the water. A hypoxic hot spot has been identified in the Ionian Sea, with particular concentrations in the waters off Western Greece.

Moderate to high concentrations of cadmium are found in the coastal areas of the Adriatic and Ionian Seas. High concentrations of mercury are present in many coastal areas of the Adriatic and, to a more limited extent, in the coastal areas of the Ionian Sea.

In respect of the environmental impact of tourism, a recent study has identified that the Ionian Sea, along with other areas of the Adriatic and Mediterranean Sea areas, face substantial issues of air pollution caused by emissions from shipping. Cruise ships raise issues in relation to emissions of sulphur and nitrogen oxides as well as particulate matters, with the potential impacts being particularly significant as cruise-ships typically operate close to coastal areas and have long port calls. High-speed ferries and international shipping are responsible for significant air pollution too. Moreover, whilst there are Sulphur Oxides Emissions Control Areas (SOx ECAs) and Nitrogen Emissions Control Areas (NOx ECAs) currently in place in some EU territorial waters (North and Baltic Seas and English Channel), these are not yet in force in the Greece-Italy maritime border area. Notably, both countries are engaged under the Barcelona Convention framework towards the establishment of a SOx ECA in the Mediterranean Sea as a whole.

It is recalled also that the deposition of air pollutants in waters is a harm to biodiversity and hence fisheries. Air pollution is also the cause of monuments deterioration and buildings degradation as well as it affects visibility in many areas interested by tourism, therefore action on air pollution has benefits on health but also on economic activities related to fisheries and tourism.

Waste management

Management of waste is a major concern notably in coastal areas where human activities, and particularly coastal tourism and maritime transports, create environmental pressure, degradation and pollution.

In terms of recycling and waste management, data is only available at the national level. Greece puts a significantly higher share of waste into landfill (at 81%) while Italy, at 21%, is below the EU average. Waste generation per capita in both countries is slightly above the EU average of 1 717 kg per capita (based on 2014 data). In terms of recycling of municipal waste, Greece (at 17.2%) is substantially below the EU average of 45.8%, while Italy is in line. The potential of circular economy policies to reduce marine litter (e.g. reducing single use plastics) should be taken into account.

Energy transition

Data on renewables is primarily at national level. Overall, the share of renewables in gross inland energy consumption (2017 data) is below the EU average in Greece (at 12%), but higher than the EU average in Italy (18.1%). Biofuels and renewable wastes are the largest single source accounting for 48% in Italy and 41% in Greece. As regard hydro-power, the situation is similar in Greece (at 12% of renewables) and Italy (at 11%). On the contrary, geothermal energy is 19% in Italy, but zero in Greece, while wind power is 16% of the total renewables in Greece, but it is just 5% in Italy. Solar energy is 21% of total renewables in Greece and just 8% in Italy.

Italy has a higher share of renewable energy sources in transport than Greece, although both countries are below the EU average level of 7.6%. Renewable energy sources as a share of heating and cooling are above, or equal to, the EU average in both countries. The highest share is in Greece at 24.6%, with Italy at 18.9%.

Climate change

Parts of the Greece-Italy maritime border area have been assessed as having medium-to-very high environmental sensitivity to climate change and therefore increased level of risks due to extreme weather conditions. The highest risk is assessed to be in parts of Epirus, Western Greece and Ionian Islands.

With regard to potential floods, a number of areas with potential significant risk have been identified, particularly in certain Greek regions. With regard to potential coastal flooding/erosion, data showing trends in absolute sea level changes in the period 1993-2015, illustrate that most of the Adriatic and Ionian Sea areas have had high sea levels. As well, most of the area is forecasted to have relatively significant increases in the frequency of drought in the medium- to long-term future an also increased risks of forest fire.

Natural areas and biodiversity

Based on data from the European Environment Agency (EEA), the index of natural and protected areas in the Italy-Greece maritime border area is moderate to high, and particularly high in coastal areas.

There is a large number of Natura 2000 sites and nationally protected areas, including several "Ramsar" (wetland) sites and areas that are rated "high" on the Wilderness Quality Index (notably in the Greek regions).

There are multiple rivers and water courses in the area, flowing into the Adriatic or Ionian Seas. Based on available data the area includes classified water bodies that are affected by point and/or diffuse pressures in rivers and lakes, and that have less than good ecological status. The water quality is assessed to be the worst in the Italian region of Puglia.

ORIENTATIONS:

– Engage in a dialogue with other Interreg programmes in the Adriatic and Ionian Sea basin area, including the Adrion TN programme, in order to coordinate actions for environmental protection and climate change mitigation.
– Strengthen cross-border coordination and support for the protection of natural areas and the promotion of biodiversity notably in coastal areas/offshore.
– Identify main sources of pollution and give priority to those that can be mitigated by enhanced cross border cooperation.
– Consider supporting cross-border actions linked to strengthening renewable energy production, linked with national/regional mainstream programmes.

4.2.5. EMPLOYMENT, EDUCATION AND HEALTH AND INCLUSION

Employment/labour market

Employment rates for 2018 in the Greece-Italy area for people aged 15-64 is at 50%, lower than the EU average of 69%. The highest employment rates are in the Greek regions (60% in Ionian Islands) and the lowest in Puglia at just 45.5% and Calabria at 42.2%. This problem affects significantly **young people** (youth employment rate in the EL-IT area is 35.1% in average, less than half of the EU average rate). Accordingly, unemployment rates in all regions in the area are very high, from 24% in Western Greece to 16% in Puglia and 12.5% in Basilicata (while EU average is below 7%).

Labour productivity, based on gross value added (GVA) per hour worked (2015, NUTS 2 level data), shows that GVA per hour worked is at just 60% of the EU average in the Greece-Italy maritime border area overall, but there are significant differences within the area, i.e. the Italian regions are all above 73% of the EU average while the three Greek regions are all substantially lower, with labour productivity levels at just 41-44% of the EU average

In terms of cross-border travel-to-work, on the basis of the Eurobarometer survey of all EU internal borders, the Greece-Italy border area had the lowest share of respondents in the EU indicating that they had travelled to their cross-border neighbour for work or business purposes, i.e. 3%.

Access to services of general interest

The analysis undertaken by ESPON on the existence of inner peripheries shows that within the Greece-Italy maritime border area there are a large number of locations where access to core services of general interest (SGIs, e.g. hospitals, primary schools and train stations) is generally poor, but with higher concentrations of services and relatively easy accessibility in some of the coastal areas of Puglia.

With regard to cross-border travel to use public services, only 3% of those surveyed in the Greece-Italy programme area have travelled cross-border to use public services. This is a very low figure, placing it at the bottom end of all EU internal border regions

Health and inclusion

In terms of health outcomes, life expectancy at birth in the Greece-Italy border area is at 83 years and all regions in the area are equal to, or above, the EU average of 81 years.

On social factors, data is very limited at regional level. This shows (2018 data) that the level of people at risk of poverty or social exclusion is at 37.2% in the Greece-Italy maritime border area overall, far above the EU unweighted average of 24.7%. It is extremely high in Calabria at 44.5% and in Western Greece at 44.6%.

The unweighted average rate of severe material deprivation (2018 data) is at 15.8% in the Greece-Italy maritime border area overall, almost double the EU unweighted average rate of 8%. The rate is exceptionally high in Western Greece (28%), although it is also high in all other regions in the area (in the range from 12.2% in Basilicata to 15.3% in Calabria).

Education

Several regions have very high shares of working population with low educational achievement, compared to the EU average. Puglia has by far the highest with 49.8% (more than double the EU average of 21.9%), with Calabria also having a very high level at 45.9% and several other regions having shares above 30% (Basilicata, Ionian Islands and Western Greece).

With regard to working population (aged 25-64) having higher, tertiary education, the Greece-Italy border area has an average rate of 20.7%, well below the EU average of 32.3%. Only Epirus at 33.8% is above. The lowest performing regions are the Italian regions (all three within a range of 14.8% to 15.9%).

Regarding adult participation in learning, the situation is not encouraging with a rate of 4.8%, substantially below the EU average of 11.1%. No regions are above the EU average with the highest level being in Basilicata at 7.9% and the lowest level in Epirus at 2%.

ORIENTATIONS:

– Explore the possibility to develop targeted measures in education to address identified obstacles (e.g. recognition of skills) or to support cross border cooperation in strategic sectors (e.g. specialised curricula or trainings related to relevant sectors for blue growth)

5. EXISTING SOURCES OF INFORMATION

- Border needs study (Commission, 2016) – Collecting solid evidence to assess the needs to be addressed by Interreg cross-border cooperation programmes - Regional Policy - European Commission
- EC ex-post evaluation of ETC 2007-2013 http://ec.europa.eu/regional_policy/en/policy/evaluations/ec/2007-2013/#11
- Comprehensive analysis of the existing cross-border transport connections and missing links on the internal EU borders (Commission, 2017-2018) – https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/cb_rail_connections_en.pdf
- European Territorial Cooperation - best practices and innovative measures, European Parliament, 2016 REPORT on European Territorial Cooperation - best practices and innovative measures - A8-0202/2016
- Flash Eurobarometer 422: Cross-border cooperation in the EU: http://data.europa.eu/euodp/en/data/dataset/S1565_422_ENG
- DG SANTE's study on cross-border health care Building Cooperation in Cross-border Healthcare: new study published! | FUTURIUM | European Commission
- ESPON's Targeted Analysis on Cross-Border Public Services CPS - Cross-border Public Services | ESPON
- ESPON's study on scenarios for accessibility by the sea, road, rail, air and multimodal: https://www.espon.eu/access-scenarios
- Smart Specialisation Strategies for all the NUTS2 regions covered by the Adriatic-Ionian area: http://s3platform.jrc.ec.europa.eu/
- Strategy of the 2014-2020 programmes (ex-ante evaluation, SWOT, priorities, evaluations)
- EU Strategy for the Adriatic Ionian Region: www.adriatic-ionian.eu
- Latest Eurostat data on gross domestic product (GDP) per inhabitant, by NUTS 2 regions, in 2016 (based on data in purchasing power standards (PPS) in relation to the EU-28 average, EU-28 = 100):
  http://www.nsi.bg/sites/default/files/files/pressreleases/ECP_GDP-Regional_2016_en.pdf

  https://ec.europa.eu/eurostat/statistics-explained/index.php?title=GDP_at_regional_level#Regional_gross_domestic_product_.28GDP.29_per_inhabitant
- EU Regional Competitiveness Index: https://ec.europa.eu/regional_policy/en/information/maps/regional_competitiveness
- EU Blue Economy Report 2019: https://publications.europa.eu/en/publication-detail/-/publication/676bbd4a-7dd9-11e9-9f05-01aa75ed71a1/language-en/

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