

## European Territorial Cooperation



European Regional Development Fund - Instrument for Pre-Accession II Fund



### **Analysis of the territorial challenges, needs and potentials of the Adriatic-Ionian Region and strategic options for post-2020 ADRION Programme**

## **TERRITORIAL ANALYSIS**

*(Appendixes in separate volume)*

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**WARNING**

The ADRION 2021-2027 Territorial Analysis is completed by three appendixes, available under a separate volume:

- A Spatial Perspective
- A Macro-Economic Perspective
- Other multilevel governance framework and cooperation programmes in ADRION region

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### Acronyms

ACRONYM	FULL MEANING
ASCI	Areas of Special Conservation Interest
BBVA	Banco Bilbao Vizcaya Argentaria
BiH	Bosna and Herzegovina
BRI	Belt and Road Initiative
DESI	Digital Economy and Society Index
EASME	European Agency for SME
EBRD	European bank for Reconstruction and Development
EIS	European Innovation Scoreboard
ESPON	European Spatial Planning Observation Network
ETC	European Territorial Cooperation
GDP	Gross Domestic Product
GFCM	General Fisheries Commission for the Mediterranean
GVA	Gross value Added
ICT	Information and Communication Technology
IMF	International Monetary Fund
INSTAT	National Institute of Statistics (Albania)
ISTAT	National Institute of Statistics (Italy)
LIP	Logistic Performance Index
MakStat	National Institute of Statistics (North Macedonia)
NDICI	Neighbourhood, Development and International Cooperation Instrument
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
RIS	Regional Innovation Scoreboard
SWOT	Strengths Weaknesses Opportunities Threats
TEN-T	Trans-European Transport network
UNCTAD	UN Conference on Trade and Development
WHO	World Health Organisation

*Executive summary.***A macroeconomic perspective**

*Even though the ADRION countries have been converging, on average, with EU27 for the period 2007-2018, they still present a heterogeneous set of countries spanning from EU higher-income group, the intermediate-income Croatia and non-EU lower-income countries - when measured as GDP per capita in PPS<sup>1</sup>. During that same period, the GDP PPS differences among the lower income candidate-countries increased after 2015, while countries the GDP PPS differences for the higher-income EU members decreased for the period 2007-2018.*

*The situation is even more challenging when looking closer at local level (NUTS 3 and especially NUTS 3), where the internal inequalities are rising, when measured with the coefficient of variation<sup>2</sup> of the GDP per capita at current market prices.*

*Namely, while some primary cities of the high- and intermediate-income countries from the ADRION region can compare with the EU27 average GDP per capita at market prices, still, secondary cities are lagging behind as they cannot compete effectively with primary cities given the agglomeration effects, productivity growth and higher earnings in primary cities. We also identified significant inequalities between coastal NUTS 3 regions and the internal NUTS 3 regions in ADRION, but the inequalities between the coastal and internal NUTS 3 regions have been decreasing in the period 2012-2017, when measured in GDP per capita at current market prices.*

*Fostering inclusive growth and the need for infrastructure investment, human capital improvement, addressing deficiencies in the labour market (especially targeting long-term unemployment) could be beneficial at regional level in the ADRION countries.*

***Policies to address potentials of NUTS 2 and NUTS 3 regions and the capital stock gaps.*** *The inequalities illustrate that the secondary and internal cities are failing to employ their full potentials. This is important for the ADRION area, because cities are driving the growth and the territories where the secondary internal cities are placed can - to a large extent - improve the growth of the ADRION countries. That is why giving opportunity on the equality of the potentials across regions can increase their competitiveness and finally accelerate the convergence with EU27 average. The challenge remains to find the right policy to identify and to help the potential growth poles in the secondary and internal cities (challenges with the urban/rural difference, proximity/remoteness to high growth gravity centres, coastal/internal dichotomies for example).*

*Policies could move toward equality of the potentials across regions and their better utilization especially for:*

- *The quality of **human potential** in the ADRION region countries could be improved by increasing competences and skills of the unemployed, e.g. targeting NEET in the 15-24 age-group*
- *Increase **R&D** as percentage of GDP but also, endorse a business environment favourable to higher spending in R&D.*
- *Improvements in the **unemployment structure** to address the long-term unemployment, the youth unemployment and active ageing by working on the skill mismatch.*

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<sup>1</sup> PPS (Purchasing Power Standards) is a common measure eliminating the differences in price levels between countries and allowing meaningful volume comparisons of GDP between countries (Eurostat).

<sup>2</sup> Coefficient of variation measures the average dispersion of distribution of outcomes and is defined as the ratio of the standard deviation to the mean of a set of outcomes from a variable. In our case it measures the average dispersion of the GDP per capita at market prices for regions within a sets of NUTS regions (NUTS 1, NUTS 2, NUTS 3).



- **Capital stock gap** needs to be addressed by improving the sustainable road and rail transport infrastructure especially in the EU candidate countries.

### **A spatial perspective**

The ADRION regions is still characterised by evident **spatial and socioeconomic disparities**. Alongside more advanced economic development poles, it features numerous territories that are lagging behind, often due to their **isolation**. The historical dichotomy between inner and coastal areas are clearly visible in some countries and less in the others. Seeking a more balanced and cohesive territorial development, the ADRION programme should **counter-balance the existing disparities** by privileging spatial and economic integration, which means activating interventions and actions that privilege **integrated spatial approaches and strategies**.

To this end, the strategic geographical position of the ADRION region, extending from the Mediterranean Sea to the Central and Eastern part of the European continent, provides it with a clear gateway connotation, in turn offering a number of opportunities for further integration within both the Danube economic system as well as the Adriatic-Ionian one. In this light, the ADRION programme should aim at seizing this opportunity, positioning the region as **space for connection** between people, goods, services and environmental resources – rather than a space of transit. Attention should be given to valorise existing intra-regional flows and synergies, as well as to provide spatial anchorages to extra-regional processes that are growingly incorporating the ADRION area within integrated European territorial patterns.

From a spatial perspective, overcoming borders through the development and further consolidation of **functional interconnections** should be one of the main goals of the ADRION programme, to be pursued through increasing attention to the development potentials and synergies existing in national and cross-border functional regions. Beside the existing functional regions, mostly located on the Western side of the Adriatic Sea, the polymorphic nature of the ADRION region presents a number of territorial potentials for developing links between similar geographical realities such as coastal areas, mountain settlements and islands. In so doing, particular attention should be paid on developing synergies among these emerging functional networks and the potential **functional urban areas** that characterise the region, in order to valorise urban-rural development potentials and counteract those territorial disparities that still characterise each country as well as the region as a whole.

### **A Territorial Analysis**

The ADRION programme spans a geographically and politically fragmented region, rich for its environmental and cultural heritage, strongly interconnected at economic level but where the divide in GDP per capita and infrastructural investments is considerable and the pace of convergence remains slow.

**PO1: a smarter Europe.** Overall, ADRION is not a region standing out for its **investment** in R&D, digitalisation, internationalisation or innovation capacity in the business sector: small, medium and micro enterprises are the cornerstone of the local economies in all sectors.

All differences taken into account, among the most relevant problems identified among SMS in the region there is the digital transformation. In a region where the digital skills of the workforce were up to now well below EU27 average, a positive legacy of unfolding pandemics might be the input for the **digitalisation** of the public administrations, the business sectors and the societies at large.

**Wholesale and retail trade** is the most prominent sector in almost every ADRION country except for Italy, where most SMEs operate in the **manufacturing**. Targeted investments in the biotechnology and food sector

could boost a sustainable development of agriculture, food production and aquaculture that are core sectors in the regions' economy.

**PO2: a greener Europe.** The ADRION region is especially **rich in biodiversity**, but it is also **vulnerable** to natural disasters, such as earthquakes, floods, wildfires, storms, droughts and climate change is making the situation even more unpredictable. Moreover, as experienced lately with the Covid-19, the region discovered itself unprepared to face complex emergencies that may include large epidemics. The transnational initiatives to prevent and address environmental hazards cannot overcome – all of a sudden - the long- standing lack of cooperation culture and the limited institutional capacities to tackle disaster risk reduction.

The Adriatic, Ionian and Aegean **seas** have been **overexploited** for decades and now are seriously at risk. Recently, Marine Protected Areas (MPAs) have been introduced as well as Fisheries Restricted Areas (FRAs) that are effectively contributing to the rebuilding of fish stocks in the Adriatic-Ionian Sea basin. However, problems such as high levels of contaminants and marine litter affect the region.

Despite the fact that the ADRION region has great potential for the development of **renewable** energy sources notably, solar and wind energy, it performs below the EU average as for eco-innovation and energy efficiency. Nonetheless, it is encouraging to notice that investments in solar and wind energy are increasing in some countries and that legislative frameworks are in place throughout the regions.

**Decarbonisation** of the energy sector, to abide by the EU Green Deal initiative, constitutes a major challenge for the majority of ADRION countries: private heating is a major cause of air pollution in South-East Europe and the increasing urbanisation is worsening the situation.

The **energy** infrastructure needs modernisation to limit significant distribution losses. By offering incentives for the renewal of the building stock, the region could quickly improve in energy consumption performance and reduce air pollution.

The recycling rate of municipal waste is low and landfilling is still the common way to dispose of collected **waste**. Overall, there is a high consumption of water and secondary wastewater treatment deserve stronger efforts, to enforce the legal and regulatory frameworks for waste management already adopted within the region.

There is a growing interest of private companies in investing in **circular economy** activities as well as to develop organised electricity markets within the region. Some countries have either launched or have under preparation/consultation revised energy strategies, adopting lower emissions arrangements. It is noticeable the growing **environmental awareness** in the local civil society and the effective networking capacity with the international civil society.

**Climate change originated events**, particularly floods and heat waves, may affect as well the touristic attractiveness, that constitutes a strong component of the regional economies. At present, the negative impact of Covid-19 emergency on the tourism industry is worrisome and the sector may remain in a stalemate for an unpredictable period.

**PO3: a more connected Europe.** The **EU integration** of the Western Balkans is a fundamental process shaping the future of the ADRION region, for the MSs as well as the candidate and potential candidate countries and, among other aspects, it is central for the normalisation of the political relations that are key for regional prosperity.

Major **international players** such as China, which is increasing its presence in the region with its Belt and Road Initiative, show the potential attractiveness of the region as an "entry point" of people and goods for the global market.

Yet, it is the heavy **EU investments** that ensure the bulk of the infrastructures for regional connectivity and offer opportunity for its economic integration.

The ADRION region is a geographically fragmented area where coastal, mountainous and insular areas all demand investments on technical infrastructures and the application of new mobility methods.

The network of **airports** has inadequate capacity to sustain tourism development and connectivity in general, mostly due to doubtful economy of scale of the related catchment area. Various bottlenecks have limited the development opportunities stemming from the **Motorways of the Sea** concept throughout the region. **Railway** transportation is lagging behind the EU average both in terms of infrastructure as well as in freight and passenger volumes. In most ADRION countries, there are poor and unsafe rail systems.

**Road transport** dominates the freight sector and, especially in the south-eastern part of the region, the multimodal transportation system is underdeveloped. This is why the “connectivity agenda” is a key asset for Western Balkans within the enlargement process and international financial institutions are willing to invest in the WB transport sector.

A few **ports** across the ADRION region are committing to multimodality and there is a renewed consciousness for the need of investments on railway infrastructures and services. There are new investments in airports and initiatives for new means of transportation (seaplanes). Finally, new approaches, as MaaS (Mobility as a Service), will offer new opportunities to existing transportation infrastructure.

**PO4: a more social Europe.** In a context characterised by demographic decline, ageing population and low fertility rates, by and large, the labour force is old and/or unskilled and features high **unemployment** rates. Indeed, there are pronounced inter- and intra-regional disparities in social capital distribution, unemployment as well as social protection expenditures. They include a north and south divide and, for the Western Balkan area, between urban and rural areas.

As for **youth unemployment**, for instance, there are strong disparities between the Southern and Northern ADRION areas. It is worrisome to note that NEETs are highly above EU27 average but the highest Early-leavers rates are concentrated in a central area of ADRION, consisting of Sicilia, Calabria, Puglia and Albania. Looking at the considerable gender gap, one notices that the tertiary education attainment is in favour of women but it does not entail employment rate in almost every region.

**Emigration** depletes the region of parts of its qualified workers that leave due the unfavourable local context and missing opportunities, either in terms of salaries, professional perspectives or welfare offers. Indeed, migrant remittances play an important role for some countries and cover their negative trade balance, but the brain-drain is impoverishing the region of its **human capital** and is vanishing the effort in public education services.

The region is strongly interested by **immigration** waves and is at the centre of the two main migrants' routes in Europe: the Central Mediterranean and the Balkans route. The Western Balkan countries are working to harmonize their reception system to the EU one but despite the technical and financial support provided, the presence of the EU external border cutting across the region puts non-member states under severe strain.

**PO 5: a Europe closer to citizens.** Clearly in the ADRION region the rich natural **environment** as well as the **cultural heritage** of the region - with 72 cultural and natural properties belonging to UNESCO World Heritage List, or 15% of the whole European continent, plus 44 elements inscribed in the UNESCO list of Intangible Heritage Humanity - operate as valuable attractors for tourism development.

The ADRION region is heavily dependent on mass tourism. In the most attractive places, it has already created a situation of **over-tourism** at the expense of natural resources, cultural heritage and welfare of local communities. Moreover, the tourism industry is characterised by high **seasonality** affecting employment, environment and availability of local services. What the rich cultural and natural heritage of the region would benefit from are expenditures and investments for **conservation, maintenance, protection and promotion**.

*There are notable differences in tourism infrastructure in the region, with most of the non-EU member states lagging behind in terms of marketing, promotion, standards of accommodation. Although the digitalisation of the tourist industry demands for new products (sites, experiences etc) there is a low investment of R&D in this sector. However, new emerging patterns in the tourism industry - in terms of customer approach, new products and experiences, and supply side - call for quick innovative reactions.*

**Transnational networks** of cultural routes and eno-gastronomic stakeholders provide the basis for extending the offer on rural and active tourism. Cities and territories in the inland regions have great cultural and natural heritage potential and they show rising rates in tourism arrivals.

Rural and cultural tourism could provide employment opportunities to inland marginal areas, isolated from the main lines of development and affected by depopulation and emigration. The interconnection of tourism with the creative and cultural economy could improve and benefit the underperforming **cultural and creative industries** of the region.

Tourism and cultural heritage strategies are often limited to a local or state-wide level, lacking the transnational element and failing to promote the ADRION region as a whole. The presence of transboundary cultural and natural heritage elements provides opportunities to enhance networking between stakeholders and to promote the destination as part of a **unique tourist region**.

In order to create a shared touristic destination, there are inadequate or missing **connections** between coastal areas, (minor) insular areas and inner territories, these latter being particularly vulnerable in the Western Balkans even though there are spaces for development in the touristic sector.

**COVID-19: a disclaimer.**

*This territorial analysis was conducted during the weeks of the outburst of the Covid-19 pandemics. The economic consequences of this global health crisis are expected to be extensive and entail a drastic drop in GDP and the deterioration of the fiscal position of all the countries involved in the ADRION region with negative long-term impacts as the recovery in 2021 is foreseen as incomplete.*

*The present territorial analysis could not take into full account potential consequences of the health emergency.*

## 1. Territorial analysis

### 1.1. Policy objective 1 A Smarter Europe

#### 1.1.1. INNOVATION

The ADRION's best performing regions in terms of **competitiveness and social progress** are located in Northern Italy, Slovenia (Zahodna Slovenija), and Attiki in Greece (OECD 2019:16). The Croatian regions show an average level of competitiveness performance, while the lower performing regions are located in Southern Italy, Greece and in the candidate and potential candidate countries (Albania, Montenegro, North Macedonia, Serbia and Bosnia and Herzegovina).

Among the indicators of the strengthening research, technological development and innovation one can consider the level of **R&D spending**. The EU set the target of the 3% of GDP to be invested in the R&D sector by 2020 but, as noted by OECD (2019), across the ADRION region there is a remarkable heterogeneity of the research and development expenditures and no country is even close to the defined goal.

Graph. 1. Gross domestic expenditure on R&D

Source: UIS, Eurostat, own elaboration

Research is crucial for the development of innovative services, processes and products.

Such a statement affects also those mature sectors, not traditionally linked to the mainstream of research priorities such as tourism.

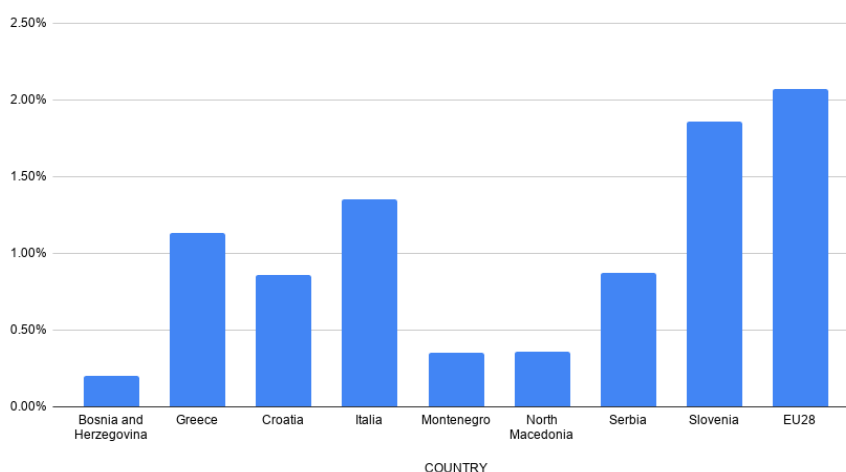
Indeed, the tourism sector represents an important share of ADRION's countries GDP and it is now challenged by new demands stemming from the establishment of specific measures issued for containment of the COVID-19 pandemic. An immediate and general push towards innovative measures is registered, as well as a stronger need of widening the scope of digitalised support services.

According to the Oslo Manual (2018), firms can undertake different activities in pursuing innovation, first of all research and experimental development activities. R&D activities are conducted in order to increase the stock of knowledge and to devise new applications of available knowledge (ESPON, 2018).

The inquiry conducted for the European Commission (11-2017) with the Estonian European Semester highlights that in the EU there are three categories of research and innovation (R&I) policy challenges: the low quality of public R&I systems, weak science-business linkages and bottlenecks in investment.

The European Innovation Scoreboard (EIS) provides a comparative assessment of the research and innovation performance in the EU Member States and in selected third countries. Based on the average scores in selected indicators, the EIS summarises the performance in the Summary Innovation Index. It classifies the countries in four groups: innovation leaders, strong innovators, moderate innovators and

Gross domestic expenditure on R&D as a percentage of GDP - 2017



modest innovators. Croatia, Greece, Italy, Slovenia and Serbia are considered moderate innovators, while North Macedonia is a modest innovator (EIS 2019).

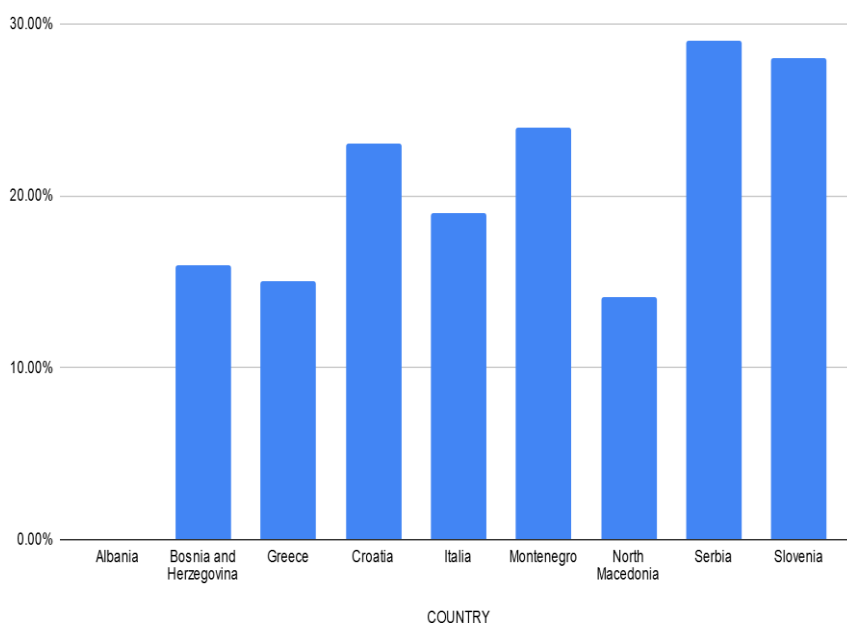
The European Innovation Scoreboard (2019) stresses that the inclusion of all the Western Balkans countries is foreseen, but they can be covered only if data are available for at least twenty indicators. At the moment, there are data for eight indicators in Albania, ten indicators in Bosnia and Herzegovina and fifteen indicators in Montenegro.

For the EU, the document highlights that performance improved by 8.8 percentage points between 2011 and 2018. The only country in the ADRION area whose performance has worsened over the period considered is Slovenia (-10.6%), that used to be the best performing country in the ADRION region, and its current negative turn is almost entirely due to declining performance in 2018 on doctorate graduates. In the same years, North Macedonia's performance relative to the EU increased by 5.5%, with a performance relative to the EU going from 37.9 to 43.4. Nevertheless, the country remains in the group of the modest innovators.

The Regional Innovation Scoreboard (RIS) is the regional extension of the EIS. According to the last publication (RIS 2019), in Greece the performance has increased for all regions except for Notio Aigaio and the Kriti region is the only strong innovator. In Croatia, the performance of Kontinentalna Hrvatska has increased, while Jadranska Hrvatska has worsened. In Italy, regional performance differences are high: Friuli-Venezia Giulia (the only strong innovator in the country) performs 80% higher than Sicily. In Serbia, Beogradski region and region Vojvodine are the most innovative regions.

The level of **innovation of the firms** is one of the most important dimensions to analyse while looking at the innovation of a country. One measurement included in the EIS is the firms' investment in the ICT-related skills of their personnel. Relying on Eurostat and MakStat (for data related to North Macedonia), it is possible to note that Serbia and Slovenia have the highest percentage of enterprises providing training to develop or upgrade ICT skills (29% and 28% respectively). The lowest performance of the region is registered by North Macedonia (14.1%) followed by Greece (15%). (Italian figure refers to the whole country).

Percentage of enterprises that provided training to develop/upgrade ICT skills of their personnel - 10 persons employed or more - 2019



Graph. 2. Enterprise providing training on ICT

Source: Eurostat and MakStat, own elaboration

Another interesting dimension concerning the human resources is the level of **R&D personnel** as a percentage of total employees of a region. The best performing regions in the ADRION area are Zahodna Slovenija (2.4%) and Emilia Romagna (2.2%). The worst performing countries are

North Macedonia (0.25%) and Montenegro (0.27%).<sup>3</sup>

Graph. 3. Percentage of R&D staff

Source: Eurostat and the Agency for Statistics of BiH, own elaboration

The goal of the European Commission (2016) Strategy on research and innovation defined in 2016 is to involve a large group of actors in the innovation process. To do so, it is fundamental to let knowledge circulate more freely through digital and collaborative technology and R&I should be characterised by international cooperation in the research community.

As the EU Commission's Orientation Paper (2020)

stresses one can observe a low level of cooperation (links and synergies) between research centres, the higher education sector, public administrations and private companies; technology transfer and capacity building. In terms of RTD collaboration patterns, OECD (2019) notes that the co-patents and scientific publications co-authored across the ADRION region show a considerable West-East divide.

The expectation is that the transnational EU programme ADRION, by promoting an increased degree of collaboration, favours knowledge sharing and learning process in the area. This should take place across regions and between stakeholders.

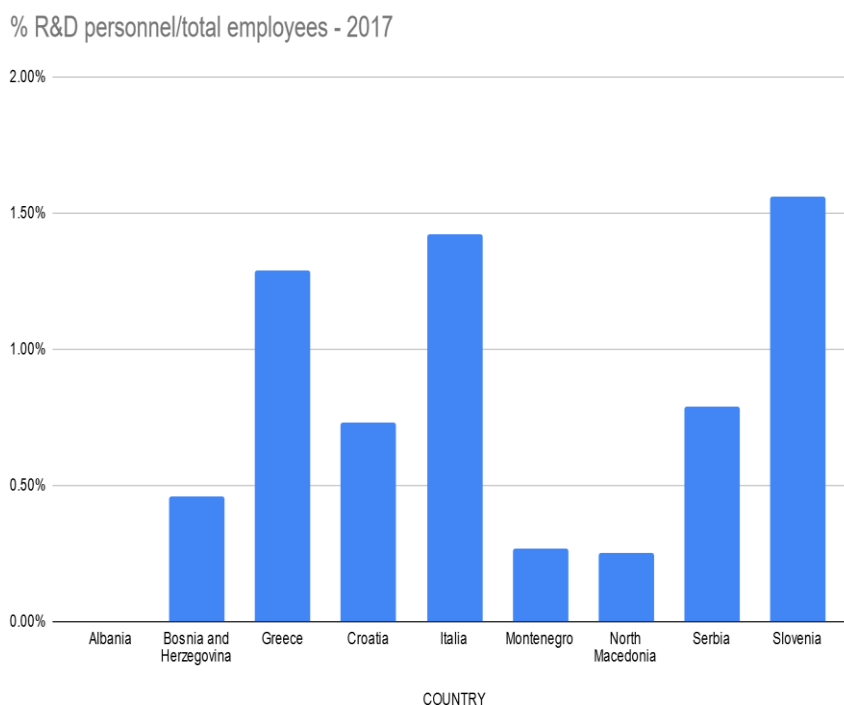
### 1.1.2. SMART SPECIALISATION STRATEGY

Since 2011, the European Commission has provided advice to regional and national authorities on how to develop and implement their smart specialisation strategies through a tool called “**Smart Specialisation Platform**”. This Platform facilitates mutual learning, data gathering, analysis, and networking opportunities for around 170 EU regions and 18 national governments.

Cohesion Policy encourages EU regions to build regional coalitions to support the creation of new European value chains in areas associated with strategic growth; for this reason, in 2015 three thematic S3 platforms have been launched, to provide an interactive and participatory environment in fields related to Agri-Food, Energy and Industrial Modernisation. The **thematic S3<sup>4</sup> platforms** are contributing to building an

<sup>3</sup> The data derive from our own elaboration of two indicators: the total R&D personnel and the level of employment. The sources of these data are Eurostat and the Agency for Statistics of Bosnia and Herzegovina.

<sup>4</sup> Smart Specialization Strategy (S3) has been introduced in the context of the 2014- 2020 programming period, as “ex-ante conditionality” within the context of Thematic Objective 1 – research and innovation. It is based on 3 main steps: identify each region's strengths and comparative assets, prioritise research and innovation investment in competitive areas and define a shared vision for regional innovation.



increasing number of interregional partnerships across the EU, exploiting synergies across partnerships and across sectors.

The countries and regions belonging to the ADRION space outlined their S3 strategies on the basis of a global SWOT analysis of the economic system, through a dialogue with local stakeholders and a process of "entrepreneurial discovery". This approach embraces a broad view of innovation including, but certainly not limited to, technology-driven approaches, and can be summarized in the following **areas of specialization**<sup>5</sup>:

Priority description and Topics	GREECE	CROATIA	ITALIA	SLOVENIA	ALBANIA	BOSNIA	MONTENEGRO	SERBIA	NIMACEDONIA
<b>ICT systems and technologies:</b> Industry 4.0, smart cities and communities, cyber security, big data, gamification, internet of things, digital platforms, solutions for e-government	X	X	X	X	X	X	X	X	
<b>Energy and sustainable environment, disaster prevention:</b> Energy efficiency and saving, smart grids, circular economy, biomass transformation, eco-materials, reduction of carbon footprint, biodiversity protection, disaster prevention and mitigation, early warning systems	X	X	X	X	X	X	X		No data available on S3 platform
<b>Health and quality of Life:</b> Biomedicine, preventive medicine and diagnostics, biomaterials, functional foods and nutraceuticals, e-health, regenerative medicine, active ageing	X	X	X	X	X	X	X		
<b>AgriFood and safe nutrition:</b> products traceability, sustainable food production and processing, food quality and security, aquaculture	X	X	X	X	X	X	X	X	
<b>Sustainable Tourism and creative economy:</b> Social innovation, imaging technologies, open innovation, experience tourism, living labs, digital media production, creative design, solutions for e-education	X		X	X	X	X		X	
<b>Smart mobility:</b> zero emissions vehicles, Euro NCAP security standards, e-mobility, smart logistics systems and <u>interconnectivity</u>	X	X	X	X				X	
<b>Innovative production technologies and advanced materials:</b> mechatronic systems, smart sensors, <u>nanomaterials</u> , polymers, robotics and human-machine interface, automation, aerospace, marine mineral resources	X		X	X	X		X	X	

SOURCE: s3platform.jrc.ec.europa.eu

Table 1. Areas of specialisation for regional innovation policies

The apparent overlapping of chosen themes represents a converging view on the development strategy and, as it is the case for tourism in Croatia, the background idea is not to underestimate the importance of that industry, but to acknowledge its widely scattered presence in terms of crosscutting interest based on a vast network of small-scale operators.

In 2019 the ADRION programme launched its third call for proposal on priority axis 1, specifically targeted on two topics: Social innovation and **Blue Growth on S3**. Specific support should be also provided to inland areas (Serbia, North Macedonia) to be aligned and match with the needs of Adriatic-Ionian coastal areas when developing projects on Blue growth.

Regional systems should ensure a stronger planning and impact orientation, and a greater role of transnational and interregional cooperation through macro-regional strategies (e.g. Interreg, Vanguard initiatives). In addition, greater synergies are considered also possible between shared programming and EU non-structural funds (e.g. Horizon Europe, COSME) that should be fully exploited by local initiatives.

S3 approach is considered as a key ingredient for the forward-looking evidence-based economic cooperation in the macro-region, as well as a facilitator of implementation of the innovation strategies across the macro-region and beyond. With reference to the EUSAIR strategy, Blue Growth is one of its pillars and has identified three main topics on which to concentrate its intervention in the area: Blue technologies; Fisheries and aquaculture, and Maritime and marine governance and services. In 2017, the representatives of the ADRION countries Governments recognized the significant potential of the Blue Economy and confirmed their commitment to support sustainable growth in the marine and maritime sectors of the Adriatic and Ionian Region, by promoting sustainable growth and jobs through research, innovation and business opportunities in the blue economy. Since many regions are currently in the process of revising

<sup>5</sup> ADRION Italian regions.



their S3, an updated and periodic analysis of the Macro regional innovation potentials should be developed in order to constantly align the ADRION projects' challenges with the most recent innovation requests of territories involved.

### 1.1.3. DIGITAL ECONOMY

Digital connectivity is considered a social right in the EU (DESI 2019:3). The availability of information and communication technologies (ICTs) affects people's lives in many ways. Enhancing access to, and use and quality of, information and communication technologies is among the priorities for the EU cohesion policy.

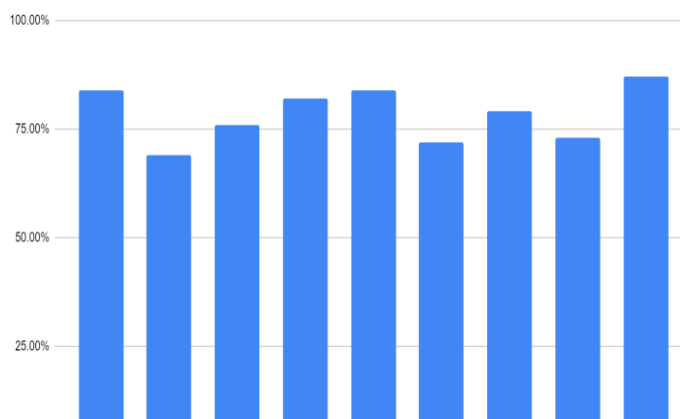
Two relevant indicators to understand the ICTs usage in households are the broadband access and the internet access.

Graph. 4. Households with broadband access

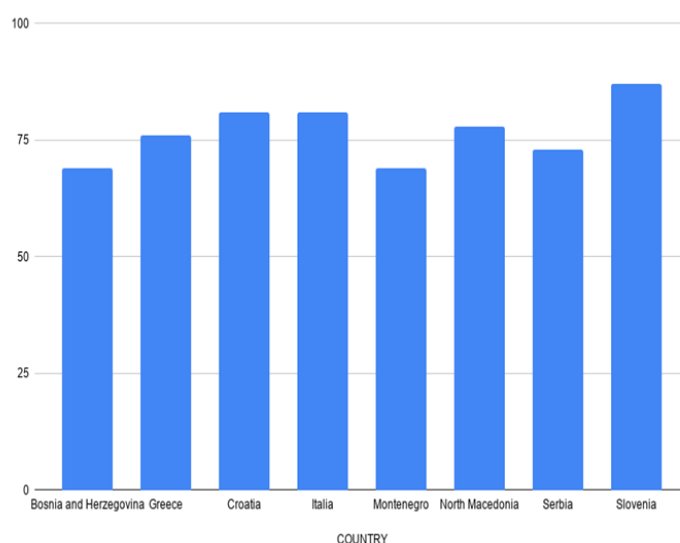
Source: Eurostat, own elaboration

The proportion of households in the EU with access to the internet was 89%, while the broadband access was 86%. As for the ADRION region, the proportion is lower (78.4% and 77.4%, respectively). Yet, the WB countries recorded significant increases from 2013 onward, improving significantly their position Eurostat (2019a). Zahodna Slovenija is the region that scores better in both the indicators with 90%. Slovenia is also the best performer as a country, while Bosnia and Herzegovina is the worst, reaching only 69% in both the indicators. Among the Italian regions that belong to the ADRION space, Molise is the worst performer with 75% and 72% for internet and broadband, respectively.

Households with access to the internet at home - 2018 (Percentage)



Households with broadband access - 2018 (Percentage)



Graph. 5. Number of households with home access to Internet

Source: Eurostat, own elaboration

There is a clear urban-rural divergence in terms of internet access in many countries. The divide is particularly strong in Greece. On the contrary, in Italy, although the indicator is higher in the cities, there is no major discrepancy in the number of households with internet access between towns and rural areas Eurostat (2019b). Moreover, the differences in broadband speed between European regions - or digital divide - are considerable in the region and have an impact on the development chances.

The Digital Economy and Society Index (DESI) is a comprehensive way to measure the digital performance among EU countries.<sup>6</sup> Looking at the DESI index, the EU Member States, on average, compare well with the non-EU countries and the top EU countries are among the best performers globally, with six EU Member States in the "top ten".

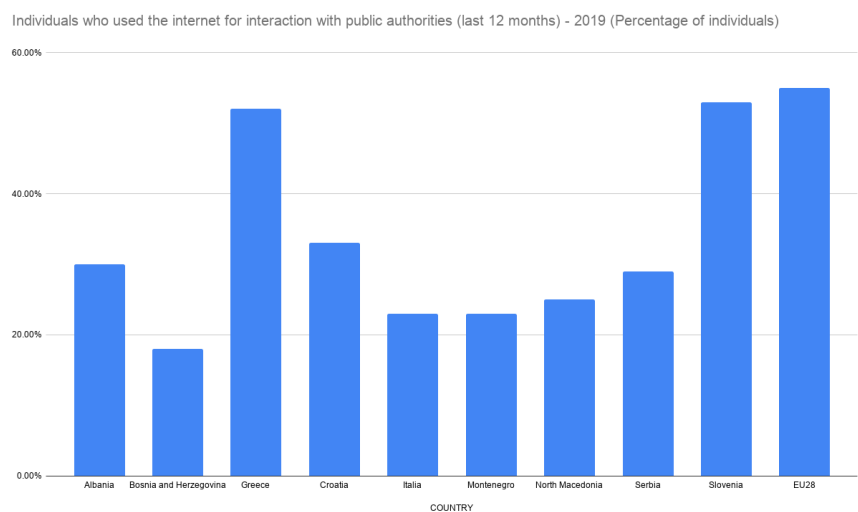
However, as underlined by the DG Connect (2018), the average hides significant differences between MS and similar differences can be found within MS themselves. This is true for the ADRION region as well where countries such as Slovenia score high as well as the Italian Emilia-Romagna but southern Italian regions are among the worst performing in the EU space.

In the Western Balkans I-DESI covers only Serbia that recorded the largest increase in performance as it increased its score by 75 per cent in I-DESI between 2013 and 2016 and rose from the last position amongst the 45 countries analysed to 34th place (DG Connect 2018).

One index connected to the digitalisation of society where all ADRION countries are all covered measures the percentage of individuals who use the internet for interaction with public authorities. In this case, relying on Eurostat regional data, it is possible to see the differences between and within EU and non-EU States.

While Slovenia and Greece are the best performers in the ADRION region in 2019, Bosnia and Herzegovina, Italy and Montenegro are the lowest performers (the data for Albania refers to 2018). Sicily is the worst region among the considered ones, with only 15% of individuals using the internet for interactions with public authorities.

Graph. 6. Use of Internet in interactions with PA



Source: Eurostat, own elaboration

The uptake of digital solutions for the public administration, not only increases the internal efficiency and facilitates interactions between administrations, citizens and businesses, it also serves as the main drivers of the digital transition of territories (ESPN 2018:25).

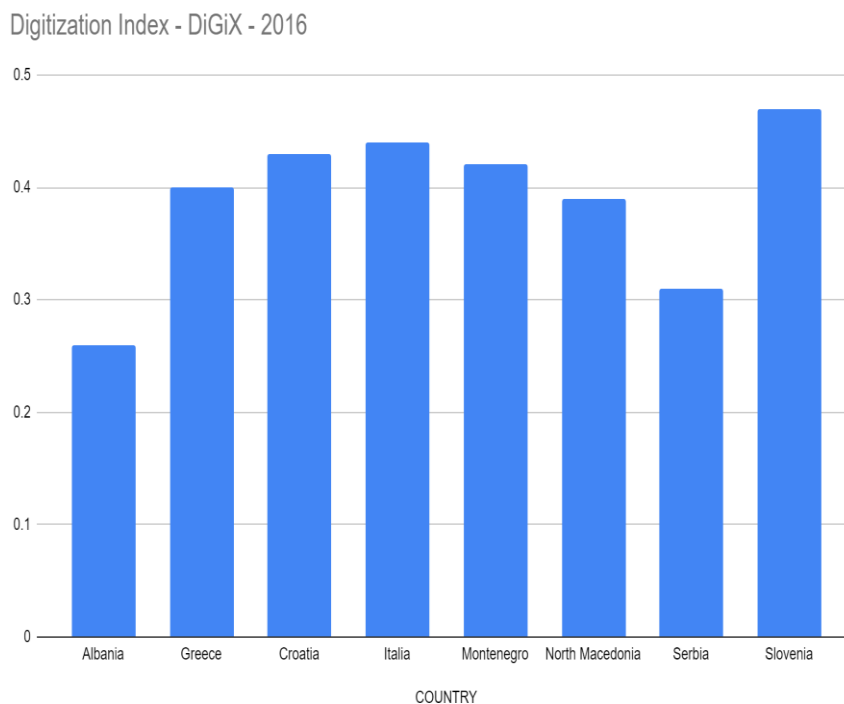
The DiGiX is another useful index to examine the digital economy (Cámara & Tuesta 2017). It summarises relevant indicators about the digital performance of 100 countries, including all the ADRION countries except Bosnia and Herzegovina. The DiGiX analyses the factors that enable a country to fully leverage the ICTs for increased competitiveness. It is structured around six dimensions: infrastructure, households' adoption, enterprises' adoption, costs, regulation and contents. None of the countries of the ADRION region has a DiGiX above the average of the

<sup>6</sup> The DESI index takes into account five dimensions, themselves divided in sub-dimensions, in order to track the progress of the EU Member States in the digital economy: 1) the demand and the supply side of fixed and mobile broadband; 2) the individuals' level of digital skills and advanced skills and development (related to ITC specialists' graduation and employment); 3) the frequency and types of activities and transactions of citizens online; 4) the digitisation of the business sector and e-commerce 5) the digitalisation of public services: e-Government and e-health.

100 countries analysed globally (0.48). Not even Slovenia, that is the highest-placed country in the region and it is the only one ranked among the first 50 countries analysed by the index.<sup>7</sup>

Graph. 7. DiG,X index (2016)

Source: Cámara & Tuesta (2017), own elaboration



#### 1.1.4. SERVICES TO SME

The 2019-2024 Agenda for Europe stresses that small and medium-sized enterprises (SMEs) are vital for the economy, accounting for two thirds of private sector jobs in the EU and representing around 99% of all enterprises DG REGIO (2020).

The Cohesion policy is the largest European source of investment in SMEs. Funds are essential to address the challenges that the SMEs face due to their dimension in different areas, such as access to finance, decarbonisation, digitalisation, internationalisation and innovation.

According to the Annual report on European SMEs (EASME 2019), for the first time since 2008 the sector expanded in all EU countries in terms of both employment and value added. In 2018, the SMEs in EU generated on average 56.4% of total value added and had an employment share of 66.6%.

The fact sheets published in the framework of the Small Business Act for Europe provide information about the SMEs in Member States and WB countries. **Wholesale and retail trade** is the most prominent sector in almost every ADRION country except for Italy, where most SMEs operate in the **manufacturing**, and Montenegro, for which data are not available.

Overall, the most relevant problems are identified in digital transformation, cooperation between businesses and research centres, weaknesses in the business environment and internationalisation (although some countries in the region perform well in some of these dimensions).

<sup>7</sup> As for labour force and digitalisation see below the chapter devoted to social rights in the labour market.

### 1.1.5. ALBANIA

In 2017, SMEs in the Albanian non-financial business economy created 80.3% of all employment, corresponding to four out of five Albanian jobs and generated 68.3% of total value added. The most challenging dimension is the internationalisation of SMEs (EC 2019a).

According to the document “Entrepreneurial Ecosystem in Albania”, developed as part of the EU for Innovation project, as the term “innovation” is used ambiguously, it is not clear how many businesses can be classified as innovative in the Albanian context (Hach and Trenkmann 2019: 12). The survey carried out by the Albanian Institute of Statistics for the period 2016-2018 on SMEs belonging to NACE sectors related to ICT, reveals that 46.9% of these enterprises have been innovative, and the majority of innovating enterprises belong to the group 0-9 employees (95.6%). According to the same source, 73.5% of the surveyed SMEs state that the most important factor in preventing innovation from happening is the high cost of innovation activity (INSTAT 2019). In 2017, 24,924 new businesses were registered in Albania. Among them, 95% are micro enterprises. The numbers suggest that most activities remain in traditional sectors such as agriculture, forestry and fishery (5,767 registrations), accommodation and food services (4,268) and trade (6,237), suggesting little innovative activities.

Cooperation between government, academia and industry remains weak. Transfer of knowledge is rare and only takes place with highly entrepreneurial private universities as the POLIS university.

### 1.1.6. BOSNIA AND HERZEGOVINA

In 2016, SMEs generated 66.3% of total value added and 71.9% of employment. Wholesale and retail trade contributed the most to SME value added, with a share of 32.9%, along with a share of 30.9% in SME employment. The manufacturing sector was the second sector for SMEs, generating 26.3% in value added and 28.6% in employment. SME value added fell in both information and communication and real estate activities (EC 2019b).

Access to finance performs in line with the EU average, while internationalisation and information availability perform below the EU average. The country should increase investment in R&I and take measures to prevent brain drain. According to the Agency for Statistics of Bosnia and Herzegovina, the percentage of small enterprises which were innovation-active in the period 2014-2016 is 36.8%. The rate of medium enterprises which undertook innovation activities stood at 49.7% in the same period. The most relevant barrier in the implementation of innovation activities is identified in the lack of funds (Agency for Statistics of Bosnia and Herzegovina 2018).

Strategies exist only at entity and cantonal level, as there is not a countrywide framework for SMEs policy. The Federation entity implemented the scholarship programme for the professions required by industry, while Republika Srpska started the “Innovation and digitalisation of SMEs in BiH” project to support the digitalisation and to raise innovation and research capacities (EC 2019b).

### 1.1.7. GREECE

In 2018, SMEs in Greece have an employment share of 87.9% and represented 63.5% of total value added. Wholesale and retail trade and manufacturing generated nearly half of SME value added. The increase in SME employment in 2014-2018 was due to growth in the food products sub-sector, due to its synergistic relationship with other sectors such as agriculture and tourism.

In 2018, Greek SMEs in the specialised knowledge-intensive services and high-tech manufacturing sectors accounted for 24.5% of the value added in the services and manufacturing sectors (the EU average is 33 percentage points).

The country is in line with the EU average in skills & innovation. Fiscal incentives have been introduced to encourage the development of the R&I competencies of SMEs. Four measures were adopted during the current reference period: the second cycle of “Research-create-innovate” programme, which fosters connections between R&I and business; the “Research and innovation strategies for smart specialisation” that aims to encourage the recruitment of young scientists in manufacturing, ICT and construction; “Business Innovation Greece”, designed for enterprises engaged in green industry, blue growth, shipping and ICT; “Digital skills for digital Greece”, which aims to promote digital skills.

Policy action is needed to improve the internationalisation. The country has among the lowest share of SMEs purchasing online (6%) and selling online (11%) (EC 2019c).

#### 1.1.8. CROATIA

SMEs account for 68.9% of employment and for 59.4% of value added in 2018. In the period 2014-2018, SME value added in the wholesale and retail trade sector increased by 37.5%, but the level is still lower than in 2008. The accommodation and food services sectors generated a strong growth, as a result of government programmes aimed at stimulating tourism.

Croatia has the lowest performance in the EU in “responsive administration”. Nevertheless, it posted the third best score in internationalisation and it is above the EU average for environment.

The lack of a qualified workforce continues to be a relevant issue. Between 2017 and 2018 there were improvements in the share of adults who intend to start a business and in the entrepreneurial activity of women. Croatia’s performance in skills & innovation has experienced a downward trend since 2008. SMEs in the specialised knowledge intensive services and high-tech manufacturing sectors, R&D intensive, accounted for 26.6% of SME value added in the manufacturing and services sectors, significantly below the EU average (33%). However, there are improvements in the percentage of SMEs introducing product or process innovations and marketing or organisational innovations.

A policy measure implemented by the Government is the introduction of innovation vouchers for SMEs, that facilitate the cooperation between entrepreneurial activities and scientific research organisations through the provision of expert support to SMEs (EC 2019d).

#### 1.1.9. ITALY

The share of employment generated by SMEs is 78.1% in 2018, while the value added is at 66.9%. Micro firms are particularly important, providing 44.9% of employment. 30.4% of overall SME value added is generated in the manufacturing sector.

Italy has one of the lowest scores in responsive administration, state aid & public procurement. Italy is in line with the EU in skills & innovation, but the share of SMEs selling online is low, as is the introduction of product or process innovation. With regard to the internationalisation, Italy performs below the EU average but its share of SMEs exporting outside the EU is above it.

The 2016 “Industria 4.0” plan acted as an incentive to increase innovation and digitalisation (EC 2019e).

#### 1.1.10. MONTENEGRO

In 2017, SMEs accounted for 80.1% of total employment and 69.5% of total value added. The share of SMEs selling online and the resulting turnover ranks well below the EU average. Montenegro ranks among the highest performers in border agency cooperation and online exports outside of the EU (EC 2019f).

#### 1.1.11. NORTH MACEDONIA

SMEs generated 74.2% of jobs and 63.4% of value added in 2017. Most SMEs (40.7%) operate in the wholesale and retail trade sector. Information and communication was among the fastest growing sectors in 2012-2017.

North Macedonia performance in skills and innovation is below the EU average. The country has one of the lowest shares of SMEs selling and purchasing online. The SMEs selling online are only 3%, while the EU average is 18%.

The business in the country is faced with weaknesses in the business environment and informal economy. With regard to the environment, North Macedonia is the worst performer of all the countries considered. The internationalisation is in line with the EU average, but the contribution to exports is the lowest of the Western Balkans (EC 2019g).

#### 1.1.12. SERBIA

99.8% of all firms in the Serbian non-financial business economy are SMEs. They account for 66.3% of employment and 55.6% of total value added in 2017. One third of SMEs operate in the wholesale and retail trade sector, followed by the manufacturing sector.

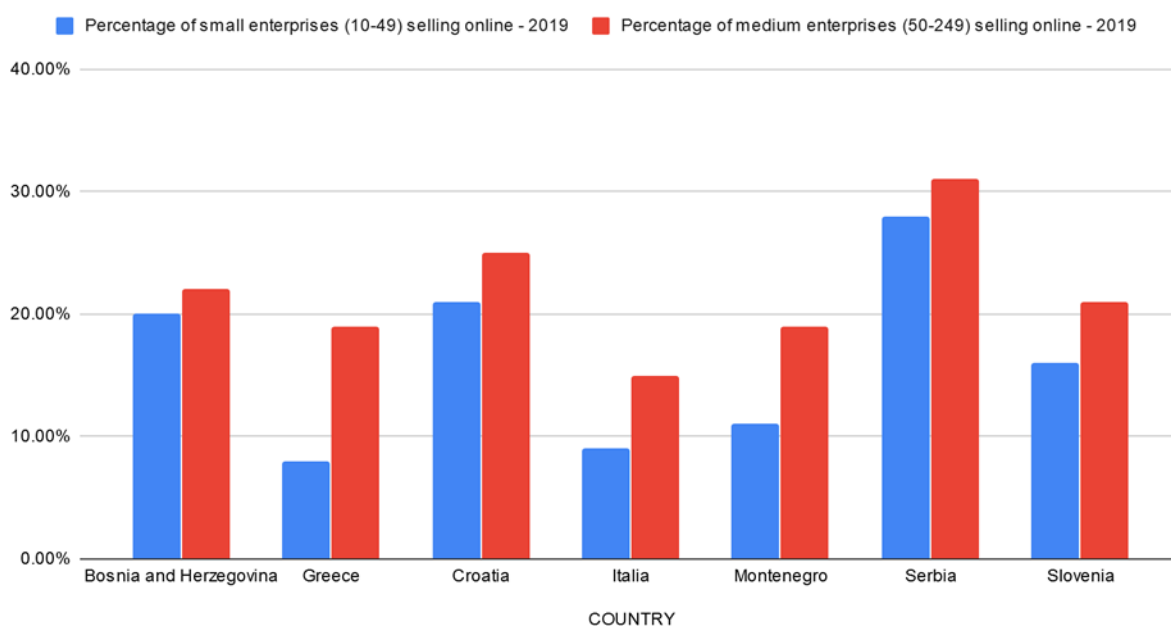
Between 2017 and 2018, the proportion of SMEs purchasing online decreased, while those selling online increased. The percentage of employees with ICT skills decreased from 20.7% to 18.2% (EC 2019h).

#### 1.1.13. SLOVENIA

The employment share of SMEs in Slovenia (72%), as well as the value added (64.5%), exceed the EU average in 2018. The majority of SMEs are active in wholesale and retail trade and manufacturing.

One of the most relevant issues is the lack of qualified workforce. Other challenges are the slow digital transformation and the low level of cooperation between business and research, development and innovation institutions. The percentage of SMEs offering green products or services dropped from 33% in 2015 to 23% in 2017. Slovenia performs in line with the EU average in internationalisation (EC 2019i).

Percentage of small enterprises (10-49) selling online - 2019 and Percentage of medium enterprises (50-249) selling online - 2019



Graph. 8. Online selling for SMEs

Source: Eurostat, own elaboration

An important indicator in the SMEs' skills & innovation is **e-commerce**, which refers to the trading of goods and services over computer networks (Eurostat 2019c). The EU average of small enterprises (10-49 persons employed) selling online is 16 percentage points, while regarding the medium enterprises (50-249 persons employed) the average is 25 percentage points. In the ADRION region, Serbia is the best performing country for both the categories of enterprises (respectively 28 and 31%). Greece is the worst performer (8%) with respect to small enterprises. Considering medium enterprises, the worst performing country is Italy (15%).

Looking at the Italian regions included in the ADRION, ISTAT data show that Calabria is the best performer with regard to the percentage of enterprises with more than 10 employees selling online (29.4%), while Molise is the lower performer (8.6%).

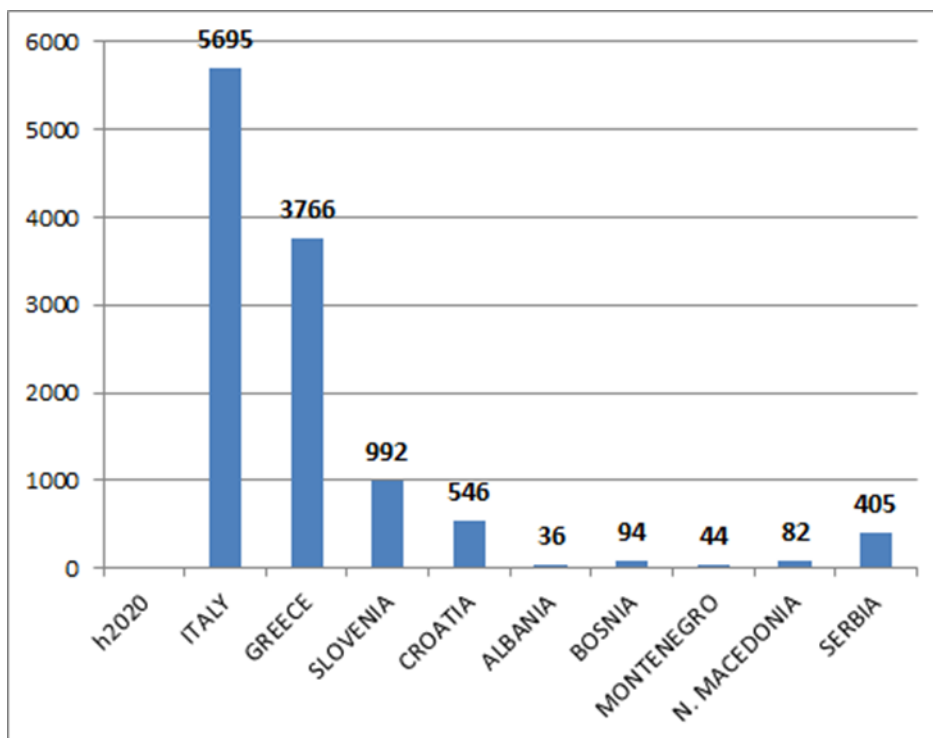
Enhancing the competitiveness of SMEs is among the goals of the EU structural funds. Progress in the digital economy is critical to improve the competitiveness (Eurostat 2019c). The use of the internet by enterprises is not limited to e-commerce, as it is related to many different dimensions.

Between them, it is interesting to look at the **purchase of cloud** computing services. Data provided by Eurostat allows to make a comparison of the enterprises with 10 persons employed or more that bought cloud computing services in 2014 and in 2018. The EU average was 19% in 2014 and grew to 26% in 2018. Slovenia was aligned to the EU average in 2018, while Croatia was the only country in the ADRION region above it (31%). The Italian case is apparently relevant, as the percentage fell from 40% in 2014 to 23% in 2018 in official statistical terms, though this is due to a change in data criterion collection. On the other hand, the percentage has almost quadrupled in Serbia (from 4% in 2014 to 15% in 2018). Cloud computing services were mostly used in 2018 for email, storage of files and office software.

#### 1.1.14. PARTICIPATION TO H2020 PROGRAMME: INNOVATION AND RESEARCH

The first priority of the new EU Cohesion Policy covers a crucial role in European policy investments; as the former Commissioner for Regional policy Corina Crețu said: *"Smart specialisation will be more important than ever in the post-2020 period. For these strategies to express their full potential in the coming years, we need two things: more partnership and more ownership, especially in those regions that need to catch up the most. This initiative will help prepare the ground for solid innovation strategies in the post 2020 period."* To facilitate this process, Commission is helping Europe's regions to prepare for the future, with solid innovation strategies supported by EU funds in the next long-term EU budget for 2021-2027, for example with the initiative "Stairway to Excellence" that provides tailored support and expertise to regions lagging behind in terms of innovation and helps regions to identify adequate EU resources to finance innovative projects, and pair up with other regions with similar assets to create innovation clusters.

A new programme – **Horizon Europe** – will build on the achievements and success of the previous research and innovation programme, **Horizon 2020** (H2020), and keep the EU at the centre of global research and innovation. H2020 showed its capability to help to create jobs and growth, tackle biggest societal challenges and improve people's lives, with a clear European added value, producing demonstrable benefits compared to national or regional-level support. The table below shows the high number of participating organisations in the H2020 Programme in the 2014-2020 period from ADRION Countries.



Graph. 9. Number of organisations participating to H2020 projects and based in the ADRION

It should be noticed the high participation in the Programme especially by organisations from Italy and Greece (respectively 5,695 and 3,766), but even the remarkable participation of IPA countries, Serbia (405 entities), Bosnia-Herzegovina (94) and North Macedonia (82).

About two-thirds of Europe's economic growth over the last decades has been driven by innovation, to which H2020 contributes with more than 10 BEUR/year (80 BEUR in the 7-year programme period). Horizon Europe is expected to generate new technologies, promote scientific excellence, and to have



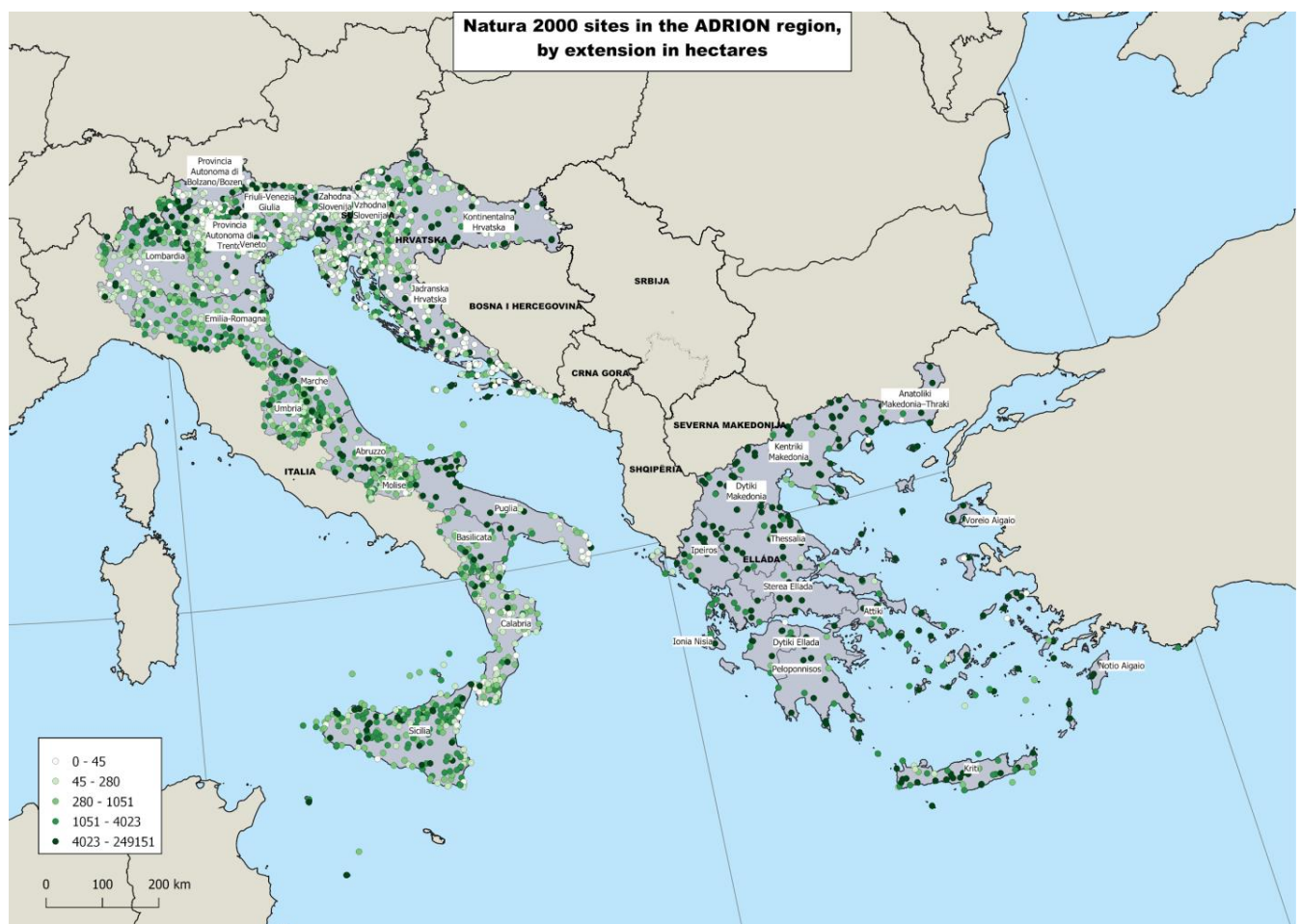
positive effects on growth, trade and investment and significant social and environmental impact. Each euro invested by the programme can potentially generate a return of up to 11 euro of GDP over 25 years.

## 1.2. Policy objective 2 A greener and low carbon Europe

### 1.2.1. HABITATS AND BIODIVERSITY

Natura 2000 is the EU-member states' network of protected areas, aiming to ensure the long-term survival of most valuable and threatened species and habitats listed under both the Birds Directive (2009/147/EC) and the Habitats Directive (92/43/EEC). The Emerald Network is an ecological network of Areas of Special Conservation Interest (ASCIs) set up by the Contracting Parties to the Bern Convention<sup>8</sup>, including a wider group of countries.

The ADRION region contains 3,027 NATURA 2000 sites in the member states with a total area of 117,993 square kilometres and 1,338 natural protected areas<sup>9</sup> in the non-member states with a total area of 16,894 square kilometres.



Map 1. Natura 2000 sites

Source: Natura 2000 database (2020), own elaboration

<sup>8</sup> <https://www.coe.int/en/web/bern-convention/emerald-network>

<sup>9</sup> <https://www.protectedplanet.net>

The share of protected areas is much larger among Member States as compared with candidate and potential candidate countries in the WB. This indicates a different approach in designation and management of the areas to be protected.

The process of EU integration is going to improve the environmental protection in the WB with the large *acquis communautaire* in this field. Indeed, the accession process to the European Union (EU) provided Croatia the chance to join the ecological network Natura 2000. The national designation of protection areas should be founded on scientific criteria but a review of these processes in different EU member states shows, however, that many factors affect the designation process, such as power and influence of different interest groups and capacities of the administrations responsible for implementation (Lovrić 2018).

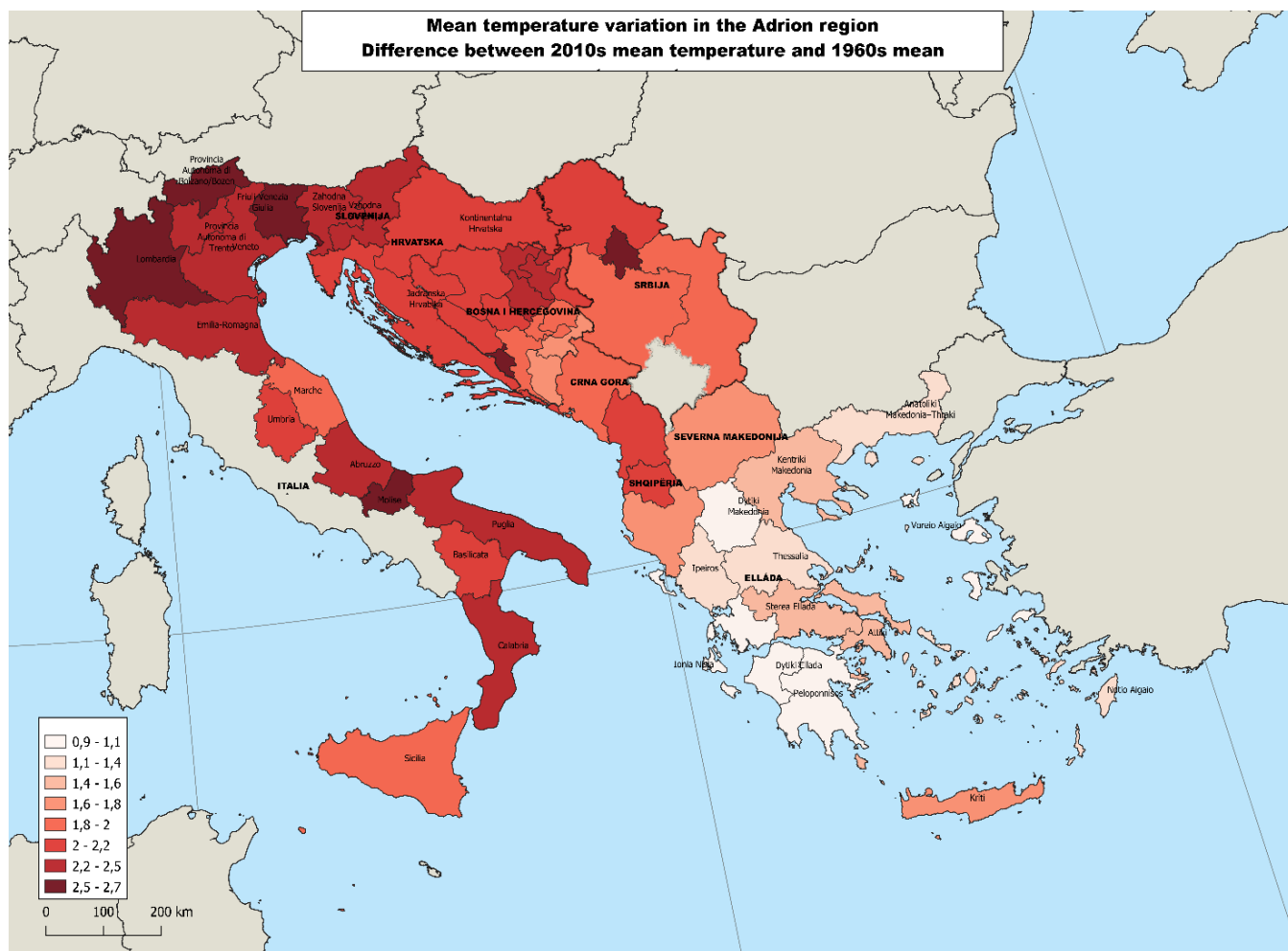
Table 1. Environmental situation, some basic context indicators

	Mountain area (% of land area)	Forest area (% of land area)	Agricultural area (% of land area)	Annual freshwater for agriculture (% of total water withdrawal)	Terrestrial and marine protected areas (% of total territorial area)	Population Density (persons per square km)	Rural population (% of total population)	% of population in urban agglomerations of more than 1 million
<b>Albania</b>	65	26	43.1	NA	13.5	99.6	40	-
<b>Bosnia Herzegovina</b>	55	42.7	43.1	NA	1.4	64.9	52	-
<b>Greece</b>	45	31.6	47.6	80.4	11	82.5	21	29
<b>Croatia</b>	20	34	27.6	10.6	23.6	73.2	43	-
<b>Italy</b>	35.2	31.7	43.2	49.7	13.4	202.9	30	19
<b>Montenegro</b>	65	61.4	19	NA	4.2	45.7	33	-
<b>North Macedonia</b>	72	39.5	50.2	26.5	9.7	83.4	42	-
<b>Serbia</b>	44.2	31.1	39.3	12.2	6.6	91	44	20
<b>Slovenia</b>	40	62	30.6	0.4	55.1	102.9	45	-
<b>Source</b>	<i>Nordregio (2004), MakStat (2020)</i>	<i>FAO (2016)</i>	<i>FAO (2016)</i>	<i>Aquastat (2020)</i>	<i>World Bank (2018)</i>	<i>Eurostat (2018)</i>	<i>World Bank (2018)</i>	<i>World Bank (2018)</i>

### 1.2.2. CLIMATE CHANGE

Climate change is due to natural and man-made hazards and risks. The current transformations that climate is experiencing are not to be neglected. The whole ADRION region's temperature is higher now than it was a few decades ago.

The changes, however, are not the same for every subregion. As it is evident from the data visualization, the Adriatic regions are more exposed than the Ionian ones. In general, only Greece seems to be marginally affected, whereas the other countries have experienced major changes when it comes to their climate<sup>10</sup>.



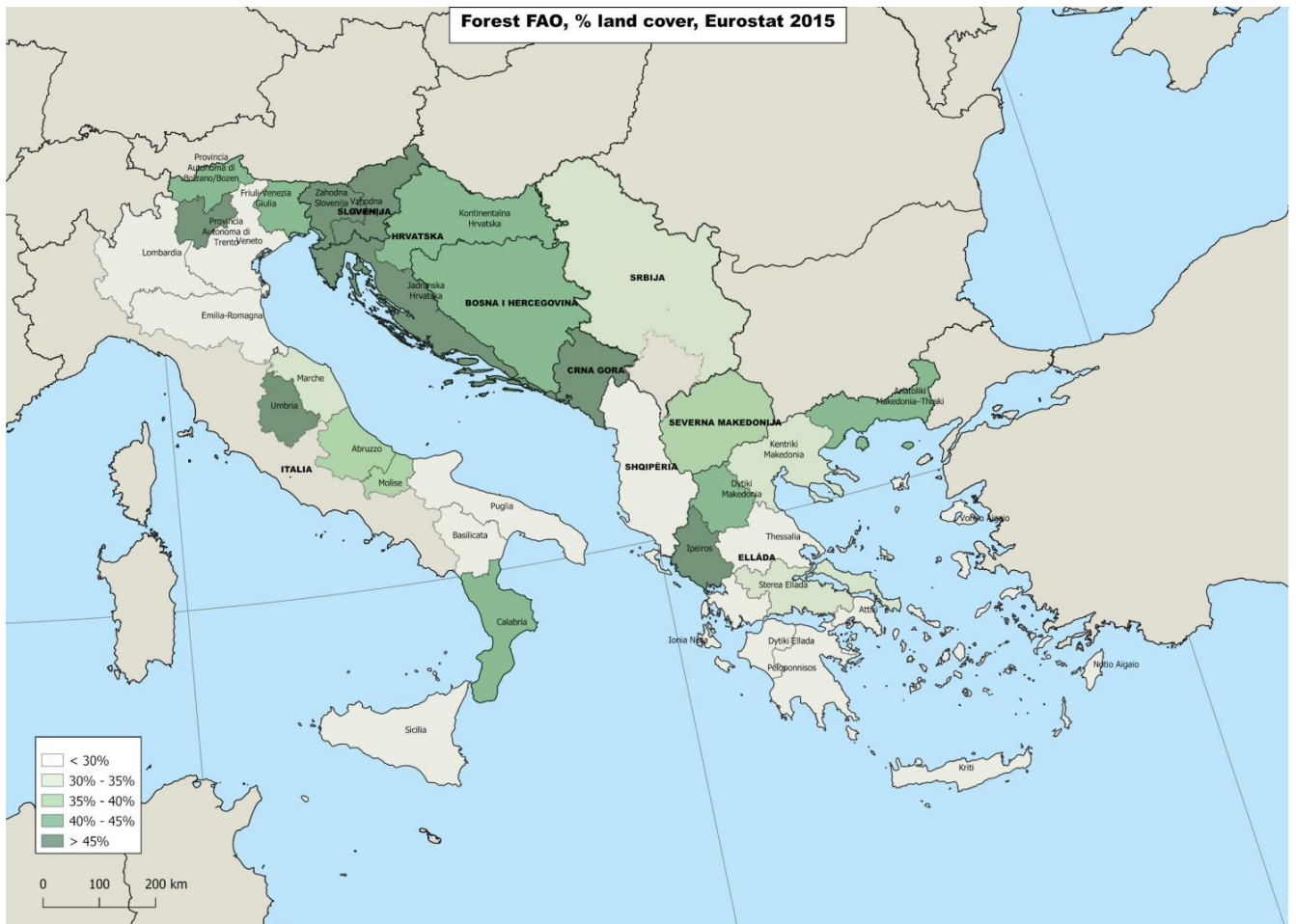
Map 2. Mean temperature change in ADRION area

Source: original elaboration of ECMWF data

### 1.2.3. FORESTS

According to the Food and Agriculture Organisation of the United Nations (FAO), forests are land with tree canopy cover of more than 10% and an area of more than 0.5 hectares. Besides providing numerous ecosystem services, such as soil protection against erosion and regulation of climate, they generate resources and sources of employment. Forests extend over at least 34.7% (FAO, Eurostat data, 2015) of the ADRION region, their coverage ranging from 6.9% in Puglia, Italy, to 67.6% in Zahodna Slovenija. The macro-regional share is in line with the EU-28 average (36%).

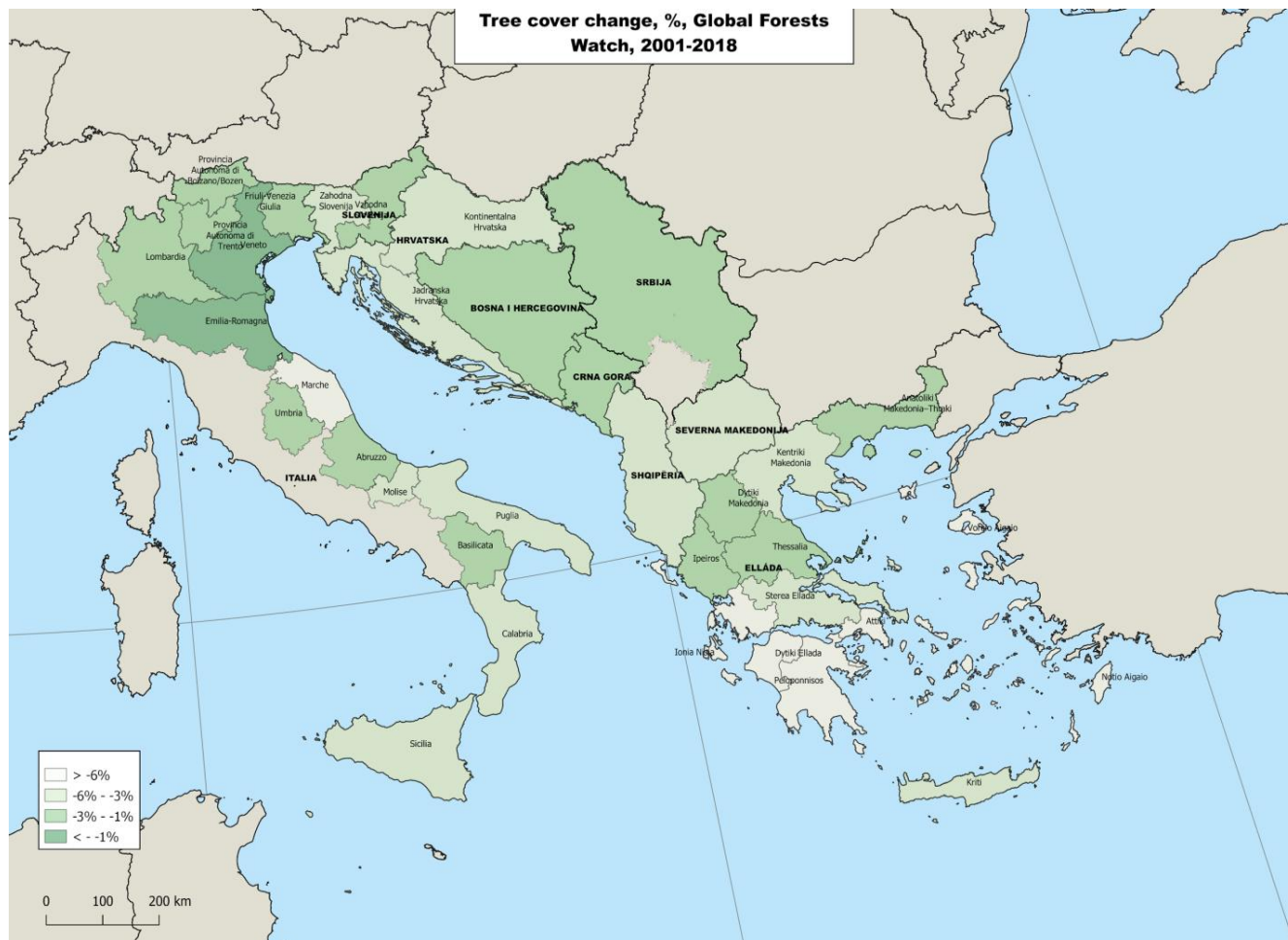
<sup>10</sup> <https://www.ecmwf.int/en/research/projects/uerra>



Map 3. Forest coverage

Source: Eurostat (2015), own elaboration

The monitoring online platform Global Forest Watch (2020) records significant tree cover losses in Greece. The forest changes occurring in Notio Aigaio (-19%) and Attiki (-17%) from 2000 to 2018 are markedly above the macro-regional average (-4.4%).



Map 4. Tree cover change (2001-2018)

Source: Global Forests Watch (2018), own elaboration

The main reason for tree losses in the ADRION region is forestry, that is temporary reduction from plantation and natural forests harvesting, while occasionally agriculture is responsible in some cases. (Global Forest Watch 2020).

Wildfires are an important driver in most of the ADRION region, and a dominant one in Greece where in July 2018 two fires in Kineta and Mati (Attiki) resulted in the death of 101 people. However, the European Forest Fire Information System (EFFIS:2019) reports a declining trend both in terms of number of fires and burnt areas in the whole ADRION region from 2008 to 2018. Notably, in 2018 the fire risk was higher in September than in July/August due to the combined effect of an unusual rainy summer and an exceptionally warm early autumn.

EFFIS stresses that preventive fire protection measures and operational activities of the firefighting system must deal with wildfires campaigns that are “no longer well defined in terms of space and time” due to climate change.

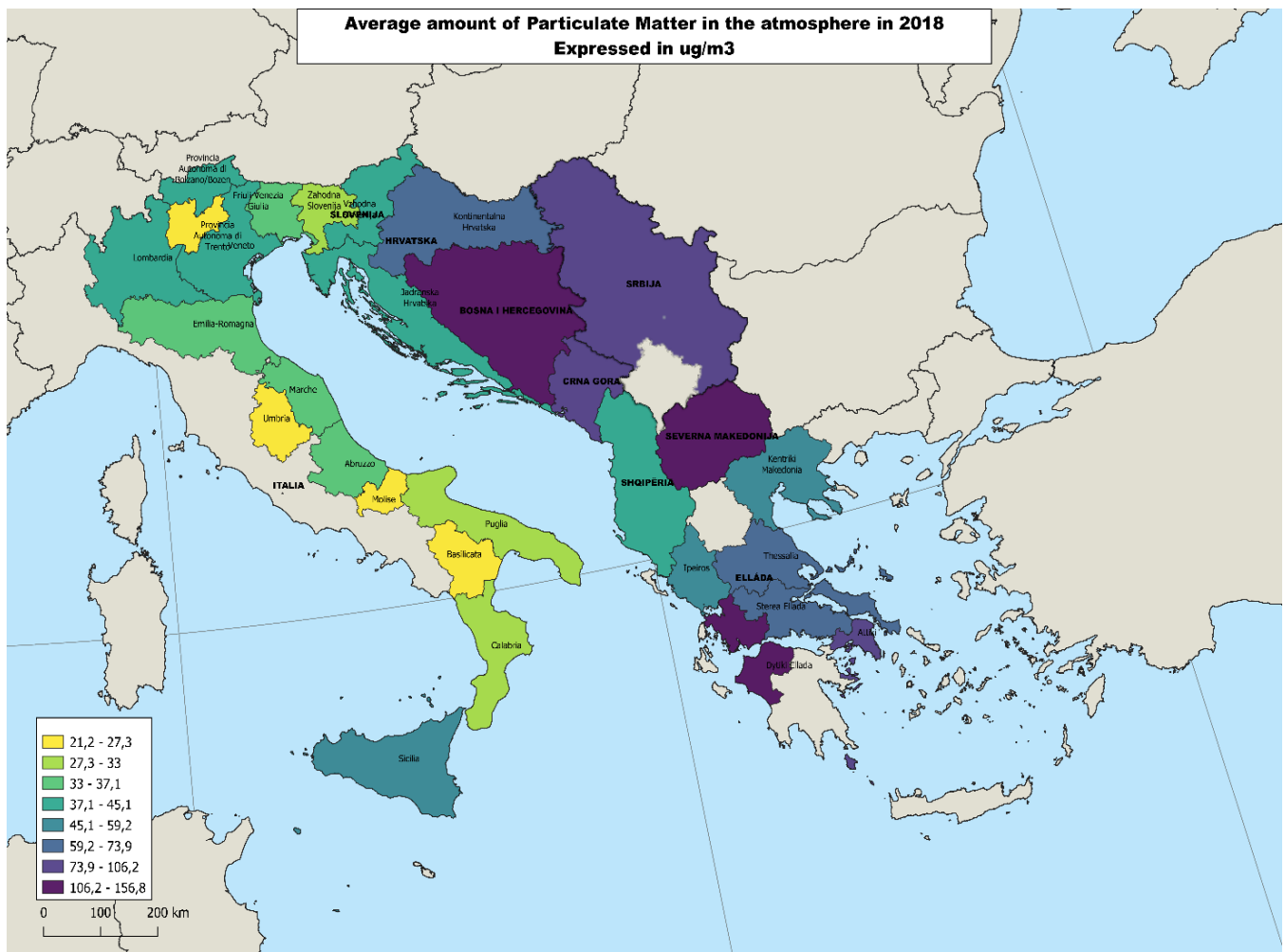
In October 2018 a heavy storm (known as ‘Vaia’) leveled 8.6 million cubic meters of trees in North-Eastern Italy. Wind is indeed an increasing source of damage to forests (Gardiner 2012) and coniferous woods like those in the Alps are more likely to be affected in the future (Gardiner 2013) by extreme weather events.

### 1.2.4. AIR POLLUTION

Being climate change caused and enhanced by human activities, it can be shown how countries in the ADRION region come with emissions and pollution. The data<sup>11</sup> are not homogeneous: some regions have many stations that measure air pollution while others like a few regions in Greece lack them (in grey in the chart).

Moreover, today methods for calculation of CO<sub>2</sub> are not collected with the same detail neither between the ADRION countries, nor in the EU Member States. And generally speaking, non-EU ones miss a reliable quantity of data.

Yet, as it can be seen in the data below, Bosnia and Herzegovina, North Macedonia and Serbia fare significantly worse than EU countries.



Map 5. Amount of particulate in the atmosphere (2018)

Source: original elaboration of EEA data

Every country in the region, except Italy and Albania, has functioning coal plants, most of them built generations ago and plans to **build new coal plants** in the following years<sup>12</sup>.

<sup>11</sup> [http://airindex.eea.europa.eu/#\\_blank](http://airindex.eea.europa.eu/#_blank)

<sup>12</sup> <https://www.carbonbrief.org/mapped-worlds-coal-power-plants>

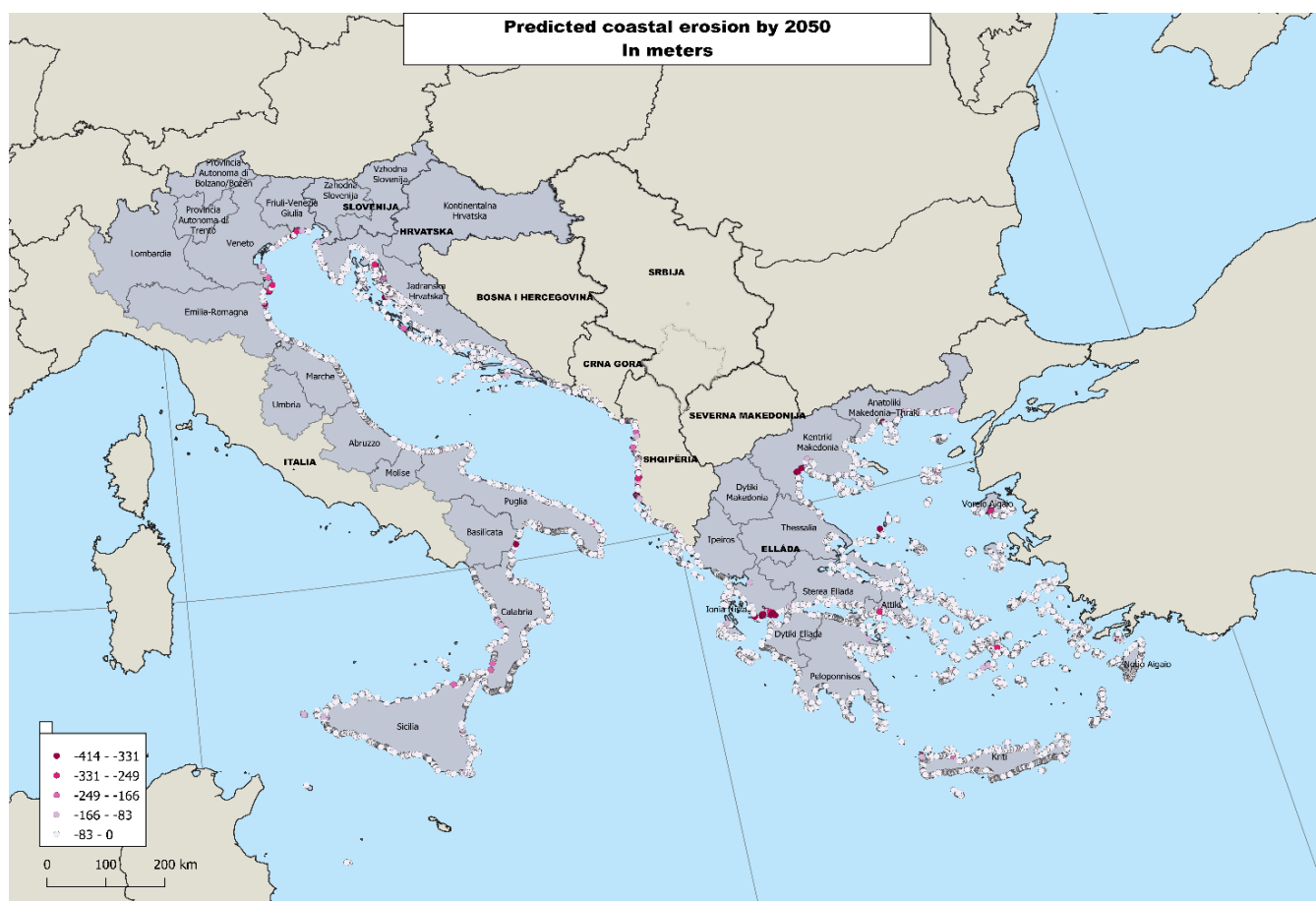
What is worse, due to widespread poverty, in the WB **private heating** is mostly ensured with wood and coal. Thus, cities in winter reach alarming peaks of PM2.5 pollution. In Sarajevo, one of the most polluted cities in the region, two thirds of homes are still heated with wood and coal. According to the World Health organisation, the per capita mortality rate in Bosnia and Herzegovina attributed to household and ambient air pollution is 223.6 per 100,000, which is one of the highest mortality rates by air pollution in the world.

A programme for the renewal of the building stock could quickly improve the situation. Incentives and funding could push for a widespread upgrading and replacing stoves with gas and electrical systems (Ferrari 2019). Road transport is an additional source of air pollution within the region.

### 1.2.5. COASTAL EROSION, SOIL CONSUMPTION AND FLOODS

Soil consumption shows a worrying trend in the ADRION region, mostly driven by the tourism sector. According to a recent research (Vousdoukas 2020), most of the ADRION coastline will be radically different by 2050. This phenomenon will severely hit countries such as Albania, that considered the rather short coastline will have major problems. Also Greece and Croatia, along with some parts of Italy where the phenomenon will have greater magnitude, will need to address their environmental policies, within a broad European initiative, in order to safeguard their natural heritage.

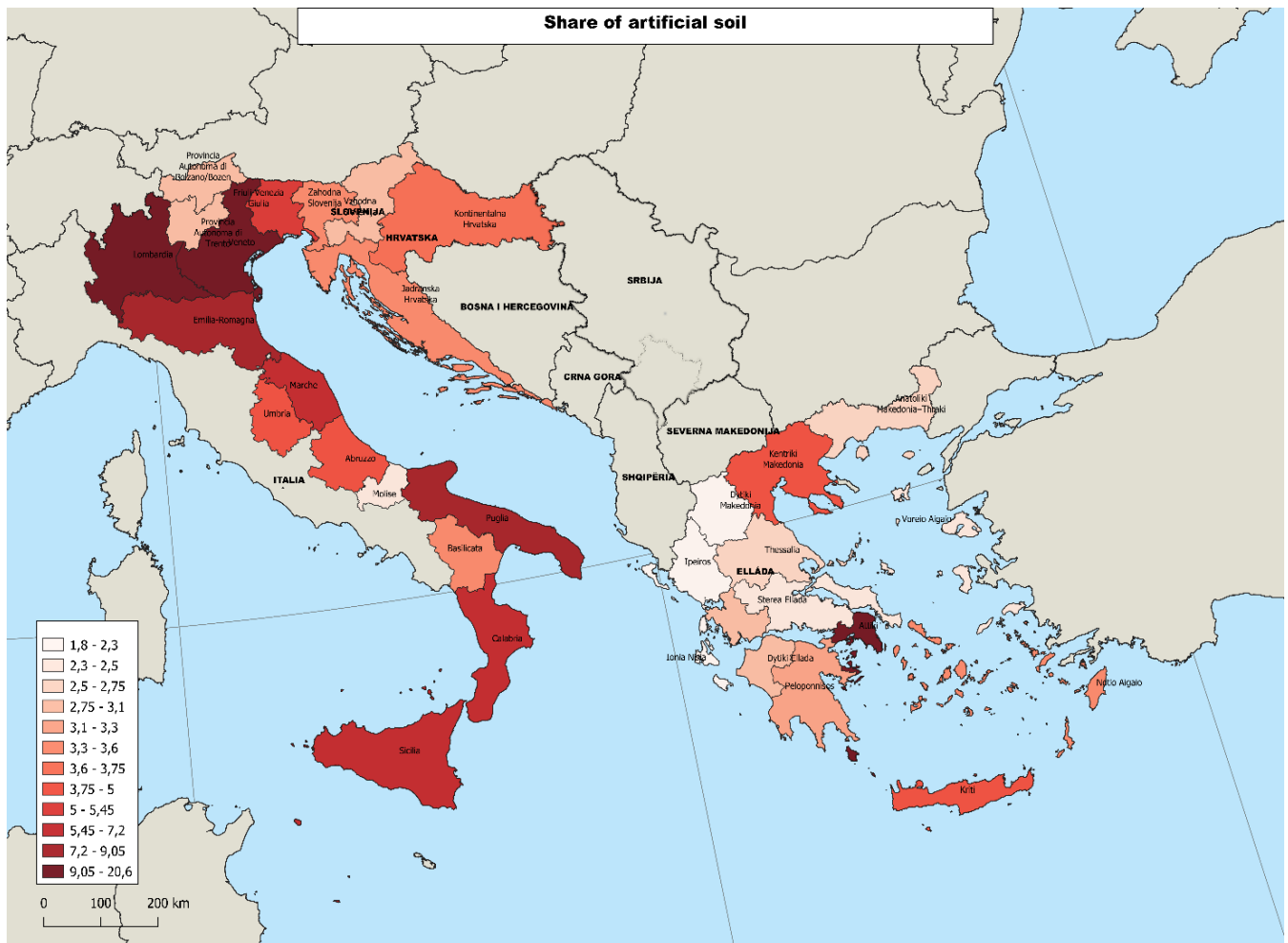
By the end of the century, indeed “up to 63% of flatland coastal regions worldwide will be threatened. In these areas, both population density and development tend to be higher than inland” (Valentino 2020).



Map 6. Predicted coast erosion

Source: original elaboration of data published in Nature

On top of it, the ADRION region, as the whole EU (Grimault 2019), is steadily getting paved over: natural landscapes are being covered with concrete, by building roads, bridges, infrastructures (Duval 2019).



Map 7. Share of artificial soil coverage

Source: original elaboration of Eurostat data

Building infrastructure is not a negative thing per se, especially considering how these can bridge the distances, and gaps, between central and peripheral areas. Yet, if left unchecked, building too much may lead to several problems. On the one hand, stressing the soil may lead to **less fertile ground** and create problems to the production of primary goods (Gatti 2019).

On the other hand, artificial land coverage makes the **soil impermeable**. This way water cannot be absorbed properly, leading to uncontrolled and dangerous floods, as it is already happening in Slovenia (Kučić 2018).

The EM-DAT database<sup>13</sup> reports 74 flooding events in the ADRION region (national data) from 2009 to 2019. The major one was the Yvette storm in May 2014, which affected over 1 million people and caused heavy damages in Serbia, Bosnia and Herzegovina, and Croatia - highlighting that floods can be addressed by further **institutional coordination** (OBCT 2014).

<sup>13</sup> EM-DAT: The Emergency Events Database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - [www.emdat.be](http://www.emdat.be)



### 1.2.6. WATER

The ADRION partners have different approaches to water treatment. Besides an overall high consumption, which is partially caused by low water prices and low collection rates, other problems in the water supply system include water shortages, especially in the coastal region and during the summer season, and insufficient level of coverage of the rural areas with public water supply systems (with poor water quality control for the waters from the rural water supply systems and other sources). The quality of drinking water is regularly monitored, for the public water supply systems, and the quality requirements are in line with WHO and EU standards.

Discharge of communal and industrial wastewater into natural recipients happens to be done with almost no treatment other than primary. An additional problem may be the lack of pre-treatment of industrial wastewater discharged into the public sewage systems, and a low level of residential connection to the sewerage especially in the remote areas.

Protection of water resources, water ecosystems and of drinking and bathing water is at the cornerstone of EU environmental policy. The secondary water treatment indicator is also part of the EU Sustainable Development Goals (SDG) indicator set and it is used to monitor progress towards ensuring universal access to safe and affordable drinking water, sanitation and hygiene while improving resource use and reducing environmental impacts.

The indicator measures the percentage of population connected to at least secondary wastewater treatment systems. The table below shows that there has been a relative improvement in the ADRION region over the last decade. However, a lot still needs to be done.

Population connected to at least secondary wastewater treatment (% of national resident population)		
Croatia (HR)	22 (2007)	36.9 (2017)
Greece (GR)	85 (2007)	93.4 (2016)
Italy (IT)	54.2 (2005)	59.6 (2015)
Slovenia (SI)	48.8 (2007)	67.4 (2017)
Albania (AL)	NA	7.34 (2017)
Bosnia and Herzegovina (BA)	10.03 (2007)	29.6 (2017)
North Macedonia (MN)	NA	NA
Montenegro (ME)	NA	NA
Serbia (RS)	6.9 (2007)	12.6 (2017)

Table 2. Population connected to at least secondary wastewater treatment

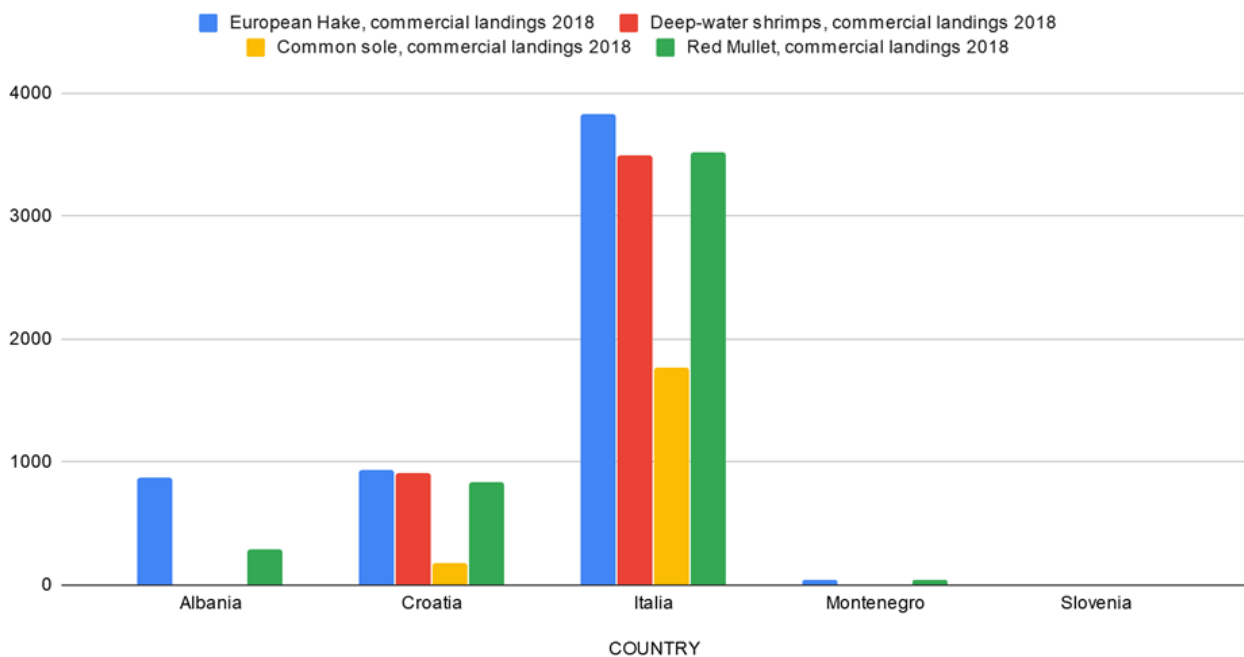
Source: Eurostat Code: env\_ww\_con; Eurostat Code: SDG\_06\_20-last update: 31/01/2020 23:00

### 1.2.7. THE STATE OF MARINE RESOURCES IN THE ADRIATIC-IONIAN SEA BASIN

According to the latest FAO report (FAO 2018), over 70% of both demersal and small pelagic species in the Adriatic-Ionian Sea basin are at low or intermediate biolevels mass, that is the average weight of specimens. The state of the European hake is particularly alarming, since its mortality is more than three times higher than the reference point (SAC 2019). The EC Scientific, Technical and Economic Committee for Fisheries (STECF 2019) reports that common sole, deep-water shrimp and red mullet are as well in **overexploitation**<sup>14</sup>.

The General Fisheries Commission for the Mediterranean (GFCM), a FAO special body which has the authority to adopt binding recommendations for fisheries conservation and for aquaculture development, is **impelling a major shift in fisheries management**. The fisheries sector in the ADRION region is on average limited in terms of contribution to the national GDPs, nevertheless important as it is often located in areas of high unemployment and socio-economic needs. Italy is responsible for 75% of the commercial landings in the Adriatic-Ionian sea basin of the above-mentioned endangered demersal species in 2018 (STECF 2019).

Commercial landings of selected demersal species in the ADRION region - tonnes - STECF 2019



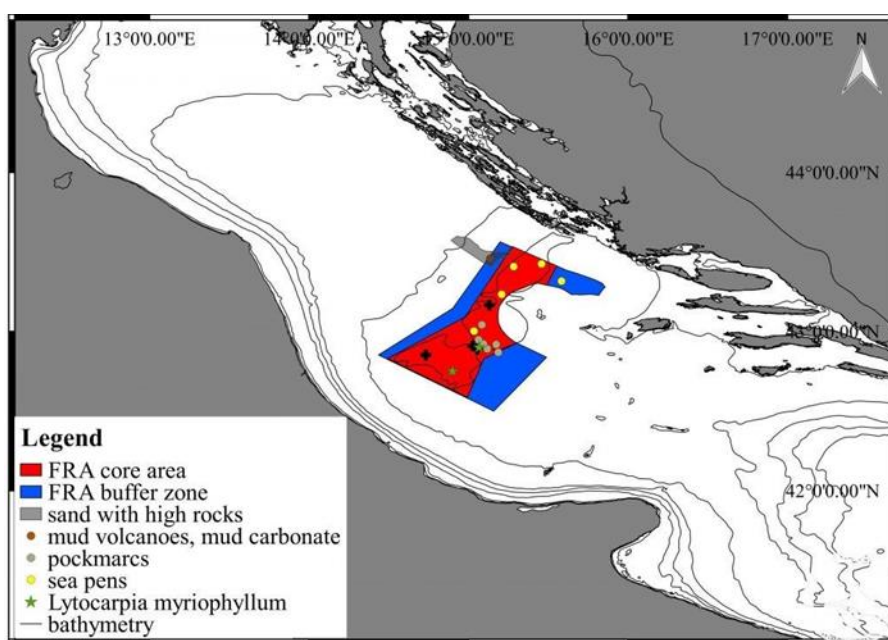
Graph. 10. Commercial landings (sea species)

Source: STECF-19-16, own elaboration

<sup>14</sup> Adriatic Sea, GSAs 17 and 18, and Ionian Sea, GSA 19, are merged for stock assessment by STECF.

The first designated **Fisheries Restricted Area (FRA)**<sup>15</sup> in the ADRION region was the Lophelia reef off Capo Santa Maria di Leuca in 2006 in order to protect a unique example of living Lophelia-bearing coral mounds in the Mediterranean basin. The site is located in the Ionian sea basin, in international waters.

The platform Medreact has identified a network of essential habitats for fish repopulation of the Southern Adriatic (Valentino 2019) within the Adriatic Recovery project. The establishment in 2018 of the Jabuka/Pomo Pit FRA, between Italy and Croatia, has divided this critical habitat for European hake in one fully prohibited fishing area (Zone A) and two restricted fishing areas (Zone B and Zone C). Primary results of the monitoring by AdriaMed study group show that the FRA is effectively contributing to the rebuilding of the stocks.



Map 8. The Jabuka/Pomo Pit FRA.

Source: University of Macerata, MaReMaP-Air project

A new FRA has been discussed at the GFCM general meeting in November 2019. The area is 2,800 square kilometres and it is located in the Otranto channel, between Italy and Albania. The two countries are opposing the plan because they fear the socio-economic impact it may have on their fisheries. Similarly, the Multiannual plan for small pelagic fisheries in the Adriatic Sea proposed by the European Commission in 2017 is on hold due to the **opposition of concerned Member States (Croatia, Italy, Slovenia)** to the setting of total allowable catches and quotas.

80% of the fish and shellfish supply is provided by the fisheries sector in the EU; however, the aquaculture sector has expanded in terms of production and sales over the last decade. The sector comprises marine, shellfish and freshwater products. Italy and Greece account for 25% of the EU total aquaculture production (STECF 2018); Greece is the main producer of sea bream and sea bass (47%) in the EU marine sub-sector whereas Italy dominates the production of clams in the EU shellfish sub-sector (80%).

Generally, the sector consists of family owned micro-enterprises, employing less than 10 employees, while in Greece a few large SA and Ltd companies, active in the marine sub-sector, are responsible for 80% of total

<sup>15</sup> FAO dataset Fisheries Restricted Areas (FRAs) <http://www.fao.org/gfcm/data/maps/fras>

aquaculture product sales. In Italy the sector is mature, whereas it is expected to grow in the other ADRION countries.

In particular, Eurofish (2020) records an upsurge in all types of aquaculture activities in Albania. In Croatia the largest freshwater segment is carp production whereas the marine production of oyster is the most promising. Because of the good quality and quantity of inland water, Slovenia has a good chance to increase freshwater aquaculture, particularly salmonid rearing such as rainbow trout, huchen (*Hucho hucho*) and brown trout. The different specialisation in fish production in the aquaculture sector can lead to effective forms of cooperation within the ADRION region.

It is deemed that **environmentally-friendly aquaculture** might alleviate the pressure on marine resources. Solid data on the environmental impact of the aquaculture sector is not available, given that pilot collection of medicine use and mortality data were launched just in 2018 across the EU member countries.

The European Market Observatory for Fisheries and Aquaculture Products (EUMOFA) provides examples of organic aquaculture production in the EU ADRION countries. In Italy there are 37 organic companies involved in either fish or shellfish farming, notably located in the Veneto region. In Slovenia there are five organic fish farms, all of them with very low production capacity. In Greece organic standards are applied only to a small share (around 20%) of the seabass and seabream production. In Croatia one company farming sea bass and sea bream is applying experimentally organic production (EUMOFA 2017).

There is an evident need for more **coordination, monitoring and planning** of fisheries and aquaculture sector in the Adriatic and Ionian Sea basin, provided that the same production standards are guaranteed in both Non-EU and EU countries.

#### 1.2.8. THE STATE OF THE MARINE ENVIRONMENT

The intensive maritime transport activity observed in the ADRION region implies ships and port emissions, underwater noise, contamination by hazardous substances and the introduction of invasive alien species through ballast water discharges (Med-Iamer 2020).<sup>16</sup> Offshore infrastructure for oil and gas extraction can entail further risks of spills and accidents. All the ADRION coastal countries are contracting parties of the Barcelona Convention (Mediterranean Action Plan, MAP) whose objectives are to assess, prevent and reduce marine pollution and to protect the environment in the Mediterranean by stronger cooperation among states. Harmonized monitoring protocols and sharing of data and information among countries bordering a common sea basin are strongly needed in the region for the proper understanding and management of the marine environment, as results from the ADRION project HarmonIA.

The first - and latest - Quality Status Report, delivered in 2017 by the UN/MAP, highlights **higher levels of contaminants** in the Adriatic-Ionian biota than in the other sub-Mediterranean basins. Worrying percentages of mercury in the coastal sediments are detected in both the Adriatic Sea and the Aegean Sea basins, due to the industrial exploitation of mines in these areas.<sup>17</sup> The DeFish Gear pilot project has surveyed the presence of **marine litter** in the Adriatic-Ionian region, finding that a significant amount (around 35%) relates to shoreline, tourism and recreational activities and, more generally, to ineffective waste management practices; among the most commonly found items, there are short-lived single-use plastic items. The fisheries and aquaculture sectors contribute to 17% of marine litter found on the seafloor (Vlachogianni, Anastasopoulou, Fortibuoni, Ronchi and Zeri 2017).

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<sup>16</sup> See as well below the chapter devoted to mobility

<sup>17</sup> <https://www.medqsr.org/>

Biodiversity and ecosystem health can be preserved through the establishment of Marine Protected Areas (MPAs). One of the policy commitments set by the Convention on Biological Diversity<sup>18</sup> is to designate as MPAs at least 10% of coastal and marine areas by 2020. By the end of 2016 (last available data), 3% of the Ionian sea and 5.8% of the Adriatic Sea were covered by MPAs. The Aegean-Levantine Sea has the lowest MPAs coverage in Europe (2.6%). Additionally, EEA (2018b) highlights that 70% of the sites in the Adriatic sea and almost 50% of them in the Ionian seas are too small (less than 5 km<sup>2</sup>) to sustain ecosystem resilience, whilst in the Aegean Levantine sea 60% of the sites measure more than 5 km<sup>2</sup>.

## 1.2.9. RISK PREVENTION & ENVIRONMENTAL MANAGEMENT

### 1.2.9.1. Tourism related environmental risks

Among many human activities with an environmental impact, it is worth mentioning the fact that tourism-related activities may be the object of a specific attention within a transnational framework. The importance of tourism sector is such that the environmental impact is significant and peculiarly linked to the geographical and seasonal concentration.

### 1.2.9.2. Major risks

The ADRION region is vulnerable to natural disasters, such as earthquakes, floods, wildfires, storms, droughts and, as experienced lately, it is unprepared for complex emergencies that may include large epidemics. In order to prevent and address them, a few transnational initiatives have been carried out over time.

Established in 2007, the Drought Management Center for South Eastern Europe (DMCSEE) involves all the ADRION countries but Italy in the monitoring of drought thus allowing the collection of harmonised data. The Interreg ADRION programme has funded the I-Storms project aimed at fostering data sharing and data interoperability between countries so as to improve risk management procedures. The European Forest Fire Information System (EFFIS) has helped in the assessment of fire danger and in the mapping of burnt areas at the European scale.

As stressed by the European Environmental Agency (EEA), “by providing regular, objective data that are consistent with wider statistical data, natural capital accounting can provide the fundamental evidence base required for informing economic and environmental decision making” (EEA 2018c). The positive impact of such initiatives is therefore remarkable, given the lack of reliable and comparable indicators in several key areas in the region. Notably, the ADRION countries would benefit from a common management framework to tackle the increasing flooding risk or the issue of air and seawater pollution.

Climate change further increases the frequency and severity of extreme natural events, resulting in biodiversity and economic damages. Promoting adaptation measures, risk prevention, data and information sharing and environmental management is a major goal for the European Union. The rich and varied natural ecosystems of the ADRION region require transnational actions at both terrestrial and maritime level. Large parts of the Adriatic-Ionian and Balkan-Mediterranean area, as well as in the mountainous part of the Alpine Space, have indeed been identified as ‘hotspots’ (EEA, 2018). Over the past decade the number of protected areas has increased across the region, but no specific adaptation strategies have been developed to date. Socio-economic considerations have further limited interventions in this field - as it is particularly evident in the fisheries sector.

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<sup>18</sup> <https://www.cbd.int/>

### 1.2.10. ENERGY TRANSITION

The energy transition implies the decarbonisation of the energy sector. Coal (mostly domestic lignite) accounts for over half of the gross electricity production in Bosnia and Herzegovina (75%), Serbia (72%), North Macedonia (60%) and Montenegro (54%), and for 35% in Greece. Governments across these countries plan new lignite power plants to replace the outdated ones, despite coal mining faces increasing social and environmental challenges related to air pollution and waste disposal.

Additionally, the Adriatic Sea is one of the sub-regions of the Mediterranean with the highest concentration of oil and gas (O&G) activities (Randone, 2016). Most of the extraction activities have occurred in Italian waters, but over the last five years Greece, Albania, Montenegro and Croatia have held various rounds of calls for offshore and onshore blocks concessions. In 2015 an oil well blast event at the Patos-Marinza site in Albania called for closer attention to the pressures of the oil extraction industry.

By contrast, North Macedonia announced a shift towards a low-carbon economy in February 2020 by approving a national energy strategy that makes it the first country in the Balkan peninsula to consider a coal phase-out before 2030. The strategy provides a roadmap and brings opportunities for investments in renewables. The closure of the Bitola lignite power plant is expected in 2040<sup>19</sup>.

In Greece a public consultation in the National strategy for energy is also on-going<sup>20</sup> and similar consultations may be expected in the remaining EU countries.

### 1.2.11. RENEWABLE ENERGY

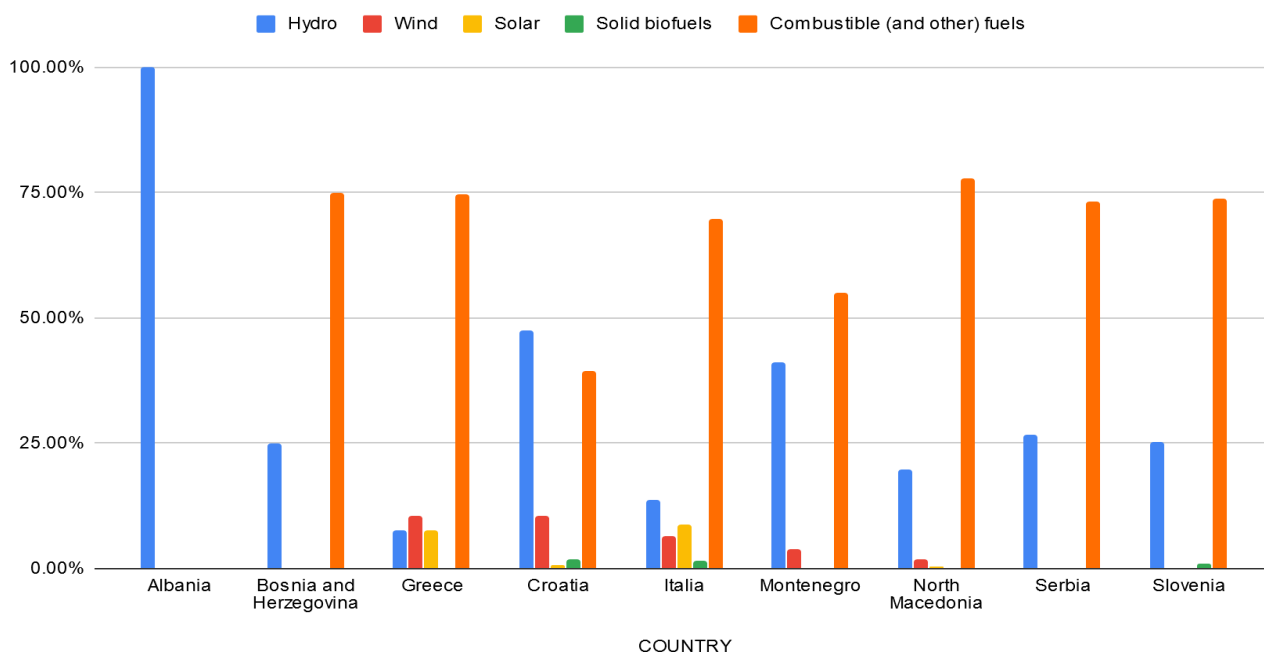
The Europe 2020 strategy includes a target of reaching 20% of gross final energy consumption from renewable sources by 2020, and at least 27% by 2030 (Directive 2009/28/EC). Renewable energy sources consist of combustible sources, such as fuels from biomass (biofuels) and municipal waste, as well as non-combustible sources, such as hydropower, wind energy, solar energy, wave energy and geothermal energy. According to Eurostat data, Montenegro (38.8%) and Albania (34.8%) have already overcome the 2030 target in 2018 while Croatia (28%), Slovenia (21.1%) and Serbia (20.3%) are all above the 2020 target and North Macedonia (18.1%), Greece (18%) and Italy (17.7%) are slightly below it.

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<sup>19</sup> <https://bankwatch.org/press-release/north-macedonia-government-contemplates-prompt-coal-exit>

<sup>20</sup> [http://www.opengov.gr/minenv/wp-content/uploads/downloads/2019/12/%CE%9C%CE%A350\\_091219\\_public-consultation.pdf](http://www.opengov.gr/minenv/wp-content/uploads/downloads/2019/12/%CE%9C%CE%A350_091219_public-consultation.pdf)

### Inland electricity production in the ADRION region (EUROSTAT, 2017)



Graph. 11. Electricity production

Source: Eurostat (2017), own elaboration

By narrowing down the analysis, it clearly appears that most of the ADRION countries heavily invest in **hydropower** for internal gross energy production. The total hydro-dependence of Albania gives it an advantage in decarbonising its electricity sector, but also makes it highly vulnerable to climate change.

Moreover, the exploitation of water resources in the EU is restricted by the Water Framework Directive (2000/60/EC) and the Habitats Directive (92/43/EEC), given its negative environmental impact in terms of reduction of protected areas, fragmentation of natural landscapes, and losses of biodiversity. Recent analyses have shown that river ecosystems in the Western Balkans are predominantly in good or very good condition, with high levels of biodiversity for species and habitats.

To protect the pristine rivers of the Balkan peninsula from the planned construction of about 2,800 hydropower plants, the NGOs EuroNatur and RiverWatch have launched a “Save the Blue Heart of Europe” campaign<sup>21</sup> in cooperation with local stakeholders.

**Solar** and wind energy production are the fastest growing renewables in some ADRION countries, although their incidence is marginal in absolute terms. Specifically, solar energy production has burst out in Croatia (+3800%), Greece (+2425%), North Macedonia (+2200%) and Italy (+1178%) while wind energy production has increased exponentially in Croatia (+766%) and doubled in Greece (+103%) and Italy (+94%) over the past decade. The low level of investment in renewable sources in Slovenia can be explained by the fact that 40% of its electricity production comes from **nuclear fuels**. The Krško Nuclear Power Plant, which is co-owned by Slovenian and Croatian state-owned companies, has been operational since 1983 and it is expected to be so until 2043.

<sup>21</sup> <https://www.balkanrivers.net/en>

**Wave energy** remain largely undeveloped in the ADRION region, but it must be noted that ENI, an Italian multinational oil and gas company, is testing a wave power platform in the Adriatic Sea (PowerBuoy<sup>22</sup>) within the MarEnergy project which aims to convert mature offshore platforms into renewable energy generation hubs.

According to the World Bank (ESMAP 2018), the diversification of the energy sector would help ADRION countries develop untapped low-cost indigenous resources and realize the benefits of regional cooperation by the creation of organized electricity markets.

#### 1.2.12. ENERGY INTENSITY

Energy intensity is defined as the ratio between the Gross Inland Energy Consumption (GIEC) of a country and its Gross Domestic Product (GDP). The lower the indicator, the higher the decoupling between the GDP growth and the demand for energy services as a result of a more efficient use of them. Over the last decade energy consumption has shifted away from energy-intensive industries to the services and residential sectors across the ADRION region, resulting in a steady decrease in energy intensity (-20%). However, the macro-regional energy intensity in 2018 (0.21) is two times higher than the EU-28 (0.10). Italy is the best performing country (0.08), whereas Bosnia and Herzegovina (0.40) and Serbia (0.35) are the worst performing<sup>23</sup>. Such figures are partly explained by a significant distribution loss (13%) in the ADRION region, particularly high in Albania (24%), North Macedonia (18%) and Serbia (15%).

#### 1.2.13. CIRCULAR ECONOMY

A circular economy is one that aims to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle at the end of their use, while minimising the generation of waste.

The European Commission adopted the circular economy package in 2015. Its impetus has trickled down to the Member States as of 2017 with the presentation of national roadmaps for moving the economy from extraction and consumption of resources (*linear economy*) to regeneration and restoration. A new circular economy action plan is among the key actions foreseen within the European Green Deal for 2020.

The concept of circular economy has entered most of the ADRION region, either directly by introducing the concept within the country legislation or indirectly by improving the legal framework on sustainable waste management EnvNet (2018). Using the approach of the EU Monitoring Framework, the assessment of the current state is grouped under the following aspects of the circular economy: (1) production and consumption of waste, (2) municipal waste management, (3) secondary raw materials and (4) competitiveness and innovation.<sup>24</sup>

As regards the overall **waste generation**<sup>25</sup> in the ADRION region, Italy has the highest level of production in 2016 with 1,799 kg/per capita, followed by Slovenia (1,457) and Serbia (1,378) whereas Croatia and North Macedonia have the lowest one with 828 and 336 kg/per capita, respectively. Italy has the highest

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<sup>22</sup> <https://www.oceanpowertechnologies.com/index.html>

<sup>23</sup> Own elaboration from Eurostat data

<sup>24</sup> Eurostat, Circular Economy Indicators, <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

<sup>25</sup> Eurostat, [Generation of waste by waste category, hazardousness and NACE Rev. 2 activity](#)



share (22%) of waste generation per domestic material consumption, double the regional average, as well as the highest level of food waste (128 kg/per capita).

In terms of **municipal waste** produced<sup>26</sup> (that is waste from households, commerce and trade, and institutions which is collected and treated by municipalities), Montenegro was the worst-performing in 2018 with 530 kg per capita (+1% compared to 2011) whereas North Macedonia was the best-performing with 301 kg per capita (-15%). The European Environmental Agency (EEA 2018) reports that **tourists** in Montenegro produce at least two times more waste than citizens.

The macro-regional average of municipal waste generation was 461 kg/per capita, in line with the EU average (488 kg/per capita). Municipal waste generation in the Italian regions included in the ADRION programme was below the national average in 2018 (479 vs 499 kg/per capita), although relevant internal disparities can be observed as the value ranges from 354 kg/per capita in Basilicata to 660.46 kg/per capita in Emilia-Romagna<sup>27</sup>.

In the ADRION region **landfilling** is still the dominant way in the management of collected waste. Slovenia stands out as an exception with 58.85% of recycled municipal waste<sup>28</sup> in 2018. The country aims to be “a recycling society” (EEA 2016), and Ljubljana was the first EU capital to declare the “Zero Waste Goal”<sup>29</sup>. The recycling rate of municipal waste within the Italian ADRION regions (58%) is higher than the national value (49.9%), and ranges from 29.53% in Sicilia to 75.51% in Provincia di Trento. The other countries rank well below the EU-28 average (47%) and, notably, in Bosnia and Herzegovina, North Macedonia and Serbia the recycling rate tends to zero. The European Environment Agency (EEA) and the ENV.net Project report the presence of thousands of illegal dumpsites in Albania, Bosnia and Herzegovina, Montenegro, North Macedonia and Serbia as a consequence, among other reasons, of poor waste collection in most rural areas.

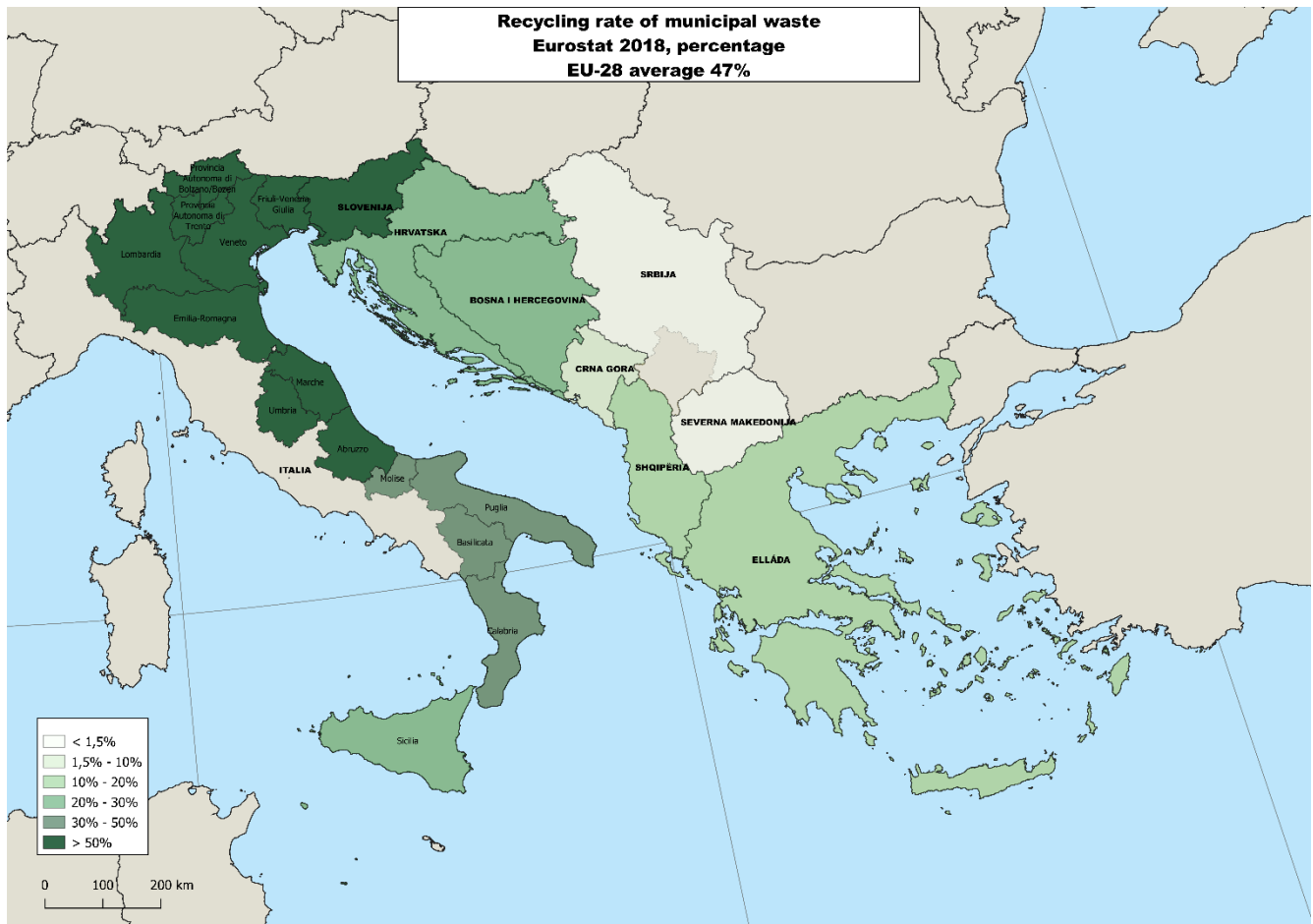
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<sup>26</sup> Eurostat, [Municipal waste by waste management operation](#)

<sup>27</sup> ISPRA (2019) <https://www.catasto-rifiuti.isprambiente.it/index.php?pg=regione>

<sup>28</sup> Portale Opendata UE (2019) Management of waste excluding major mineral waste, by waste management operation Eurostat <https://data.europa.eu/euodp/it/data/dataset/EWKq0mPNU9gfbwBPCx1Zg>

<sup>29</sup> Ibidem



Map 8. Recycling rates

Source: Eurostat (2018), own elaboration

“Secondary” raw materials are recyclable waste becoming a by-product used to manufacture new products. Eurostat classification<sup>30</sup> includes five classes, namely: plastic; paper and cardboard; precious metal; iron and steel; copper, aluminium and nickel. Within the ADRION region **exports of secondary raw materials** exceed the imports, even extensively in Croatia and in Italy (3 times more), with the exception of Greece and Slovenia where the opposite happens. In Bosnia and Herzegovina potential secondary raw materials are exported to EU countries since there are not operating recycling facilities. Likewise, in Montenegro all recycled materials are exported abroad despite a few recycling facilities are in place for plastic and paper. In Serbia, only 0,3% of waste is transformed into secondary raw materials. Waste exports have increased also in North Macedonia, where there are recycling facilities for plastic, paper, iron and steel. In Albania there are 60 recycling companies for glass bottles, paper and cardboard, and steel scrap; the majority of recycled aluminium cans is exported to neighbouring countries (EEA 2018a). For the EU member countries of the ADRION region a **Circular Material Use Rate (CMU)**<sup>31</sup>, that measures the share of material recovered and fed back into the economy in overall material use, is presented. In 2017 the only country above the EU-28 average (11.7%) was Italy (17.7%), while the indicator for the other countries ranges from 8.5% in Slovenia to 2.4% in Greece.

<sup>30</sup> Eurostat, [Trade in recyclable raw materials by waste](#)

<sup>31</sup> Eurostat, [Circular material use rate](#)

In the EU-28, almost four million workers (1.69% of active workforce) were **employed in sectors related to the circular economy** in 2017, a 5% increase compared to 2011<sup>32</sup>. The industrial activities included range from repair and maintenance of goods (such as vehicles) to environmental services<sup>33</sup>.

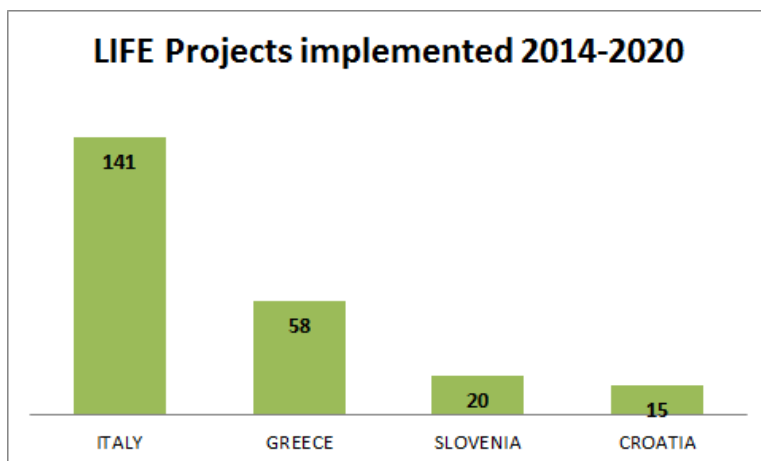
The share of persons employed in the ADRION region (1.81%) is slightly above the EU average, and it is particularly high in Croatia (2.21%), Italy (2.06%), Slovenia (2.06%) and Bosnia and Herzegovina (1.82%) whilst it is slightly below the EU average in Greece (1.52%) and Serbia (1.21%). Data are not available for Albania, Montenegro, and North Macedonia.

In 2017 circular activities generated over €18 billion in value added in Italy against over €2 billion in the other countries, while €1.6 billion were invested in the sector in Italy against €238 million elsewhere in the region. In terms of percentage of GDP, the investments and the value added in the ADRION region are in line with the EU-28 average. Italy (19) and Greece (1) are the only countries in the region where **patents** related to recycling and secondary raw materials were registered.

#### 1.2.14. PARTICIPATION OF ADRION REGIONS TO EU LIFE PROGRAMME: ENVIRONMENTAL TECHNOLOGIES, NATURE AND BIODIVERSITY

Launched in 1992, the **LIFE programme for the Environment and Climate Action** is one of the pillars of EU environmental and climate funding. It has financed over 4,600 projects across the EU and in third countries, mobilising nearly EUR 10 billion and contributing over EUR 4.3 billion to environment protection and climate action. LIFE has played a significant role in the implementation of major EU environmental legislation, including the Habitats and Birds Directives.

In the period 2014-2020, among a total of 894 funded projects, 141 involve Italian ADRION regions, and a good participation is also remarked for Greece (58 projects), Slovenia (20) and Croatia (15). No participation is registered for IPA countries that have been involved in the past programming periods thanks to a specific strand dedicated to Third Countries.



Graph. 12. number of LIFE projects implemented in the ADRION regions

LIFE presents important synergies with the second priority of EU Cohesion Policy, a “**greener Europe**”, having as main objectives the environment protection, mitigating climate change and supporting the transition to clean energy by optimising energy efficiency and increasing the share of renewable energy. The LIFE programme

is among the EU funding programmes for which the Commission has proposed the largest proportional increase for the period 2021-2027. Raising the level of ambition for climate financing, the Commission has

<sup>32</sup> Eurostat, Private investments, jobs and gross value added related to circular economy sectors [https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=cei\\_cie010&language=en](https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=cei_cie010&language=en)

<sup>33</sup> Full list available here:

[https://ec.europa.eu/eurostat/documents/8105938/8465062/cei\\_cie010\\_esmsip\\_NACE-codes.pdf](https://ec.europa.eu/eurostat/documents/8105938/8465062/cei_cie010_esmsip_NACE-codes.pdf)

also proposed that at least 25% of EU expenditure across all EU programmes should contribute to climate objectives; in addition to its own direct achievements, LIFE programme will act as a catalyst for other funds.

The main elements of the new LIFE programme include:

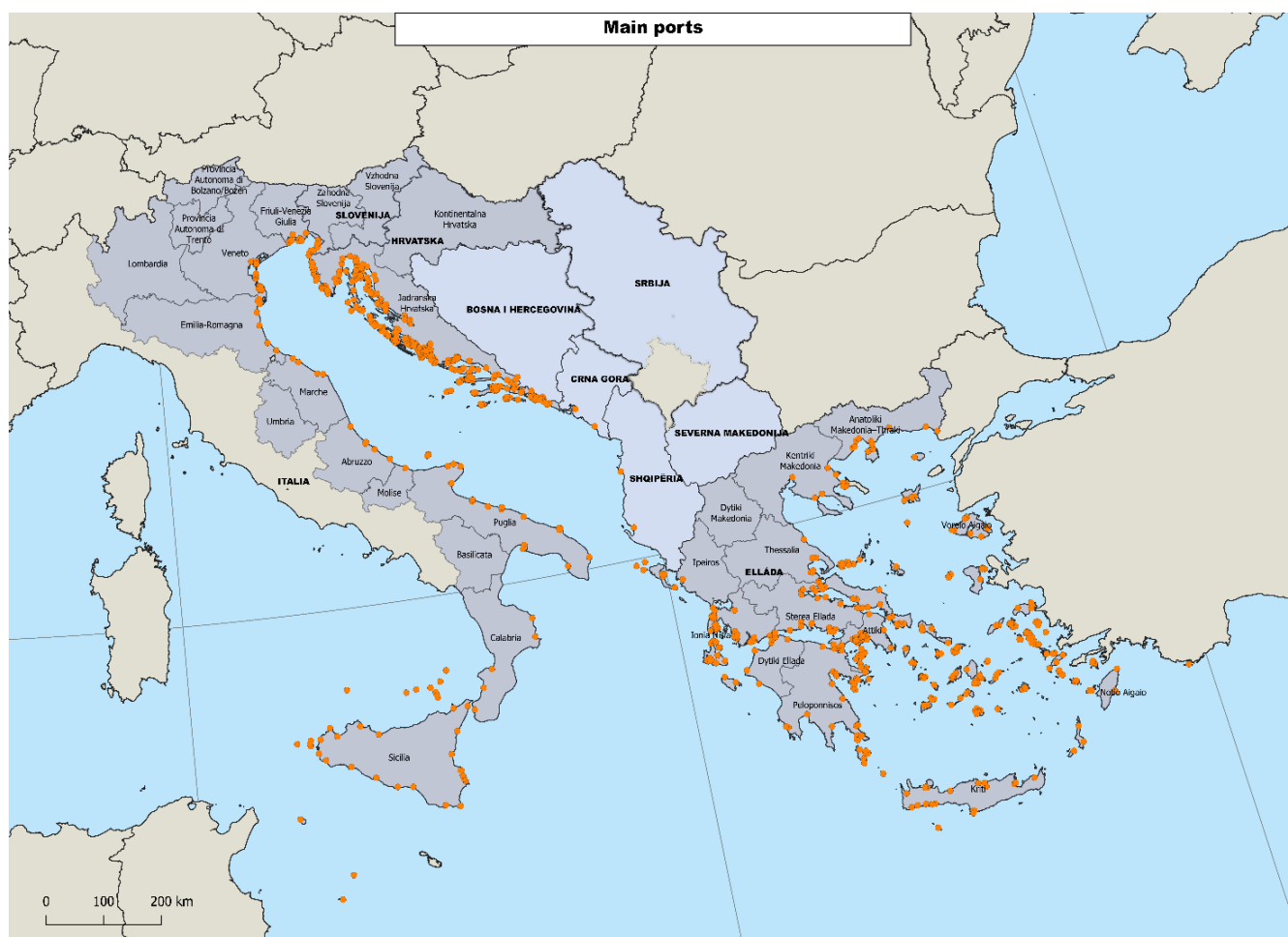
- Support for the transition to a **circular economy** and enhanced **climate change mitigation**: the Programme will focus on protecting the environment and mitigating climate change; this will be one of the tools enabling the EU to meet its climate goals and seek to become climate-neutral by 2050. Actions will support the full transition to a circular economy, protecting and improving the quality of the EU's air and water, implementing EU's 2030 energy and climate policy framework and meeting the Union's commitments under the Paris Agreement on Climate Change;
- a new specific sub-programme will stimulate investment and support activities focused on energy efficiency and renewable energy, especially towards sectors and European regions lagging behind in the **transition towards clean energy**;
- an increased focus on **nature and biodiversity**: a traditional strand of the LIFE programme, the specific "Strategic Nature Projects" for all Member States will help mainstream nature and biodiversity policy objectives into other policies and financing programmes, such as agriculture and rural development, ensuring a more coherent approach across sectors.

### 1.3. Policy objective 3 More Connected Europe

#### 1.3.1. MOBILITY AND TRANSPORT

#### 1.3.2. MARITIME TRANSPORT

Over 730 million tonnes of **goods** were carried by sea in 2018 in the ADRION region, accounting for 18% of the total handled in the European Union, while almost 200 million **passengers** moved, that is over 40% of the total registered in the EU. Notably, maritime tourism is steadily growing in the region, mostly driven by the cruise sector (+7% in 2018 compared to 2017) (Adriatic Sea Forum, 2019). The port of **Piraeus** (Attiki) is the major one in the region both in terms of freight and of traffic of passengers, according to the latest available data. The port has been controlled by the government-owned shipping and logistics Chinese giant COSCO (China Ocean Shipping Company) since 2016.<sup>34</sup>



Map 9. Commercial ports in the ADRION area.

Source: SHAPE project

<sup>34</sup> See below the paragraph devoted to the topic of Chinese investments.

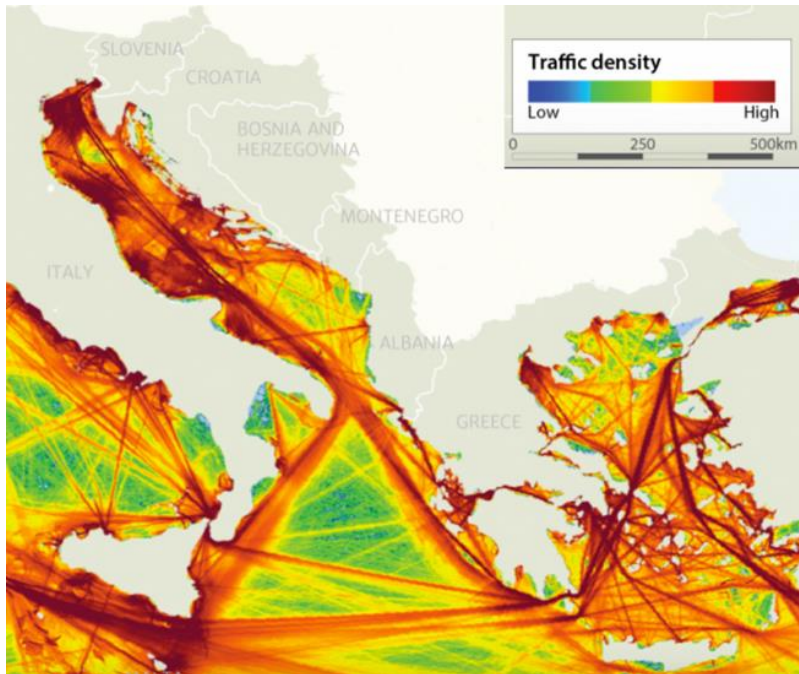
There are 352 recorded ports only in the Adriatic Sea basin <sup>35</sup>, commercial activities concentrate in the Northern Adriatic whereas the Southern ports dominate Roll On-Roll Off (Ro-Ro) transport. A similar geolocalisation and analysis is not possible as regards the Ionian ports.

Short Sea Shipping (SSS) concerns the maritime transport of goods within a sea basin. Over 350 million tonnes were transported from the main ADRION ports within the Mediterranean in 2018, a 6% increase compared to 2008 (Eurostat, 2018). **Italy is the major short sea shipping country** in the region in 2018, accounting for over 70% of the total tonnage.

The Supair project involves seven port authorities of the ADRION region, namely: Venezia, Trieste, Koper, Bar, Durrës and Thessaloniki. In March 2020 each of them delivered an Action Plan for Sustainable and Low Carbon Ports. A number of **energy sustainability** projects are being carried out in the Adriatic-Ionian region, but there is substantial room for improvement. None of the concerned ports has, for instance, put in place **on-shore power supply (OPS)** for vessels in berth, a technology which is deemed to result in substantial environmental gains but requires considerable investments (between 5 and 25 million € per installation).

The Port of Trieste adopted a "**green procurement**" initiative in order to introduce environmental criteria in the purchasing policies of goods and services.

The Susport "SUSTAINABLE PORTS" project has been recently approved by the Interreg Italy-Croatia Cross-Border Programme involving five port authorities in Italy (Bari, Ravenna, Venezia, Ancona e Trieste) and five in Croatia (Split, Dubrovnik, Zadar, Ploce e Rijeka). The project has a budget of about € 7 million and a duration of 34 months. The main goal of Susport is to improve the environmental performance and energy efficiency of the Adriatic ports involved by implementing pilot activities in several sectors, such as noise reduction, air quality, and CO<sub>2</sub> emissions<sup>36</sup>.



Map 11. Density of Marine Traffic in the Adriatic-Ionian-Aegean region

Source: Marine Traffic, 2017

<sup>35</sup> [http://data.adriplan.eu/layers/geonode%3Aports\\_harbor](http://data.adriplan.eu/layers/geonode%3Aports_harbor)

<sup>36</sup> [https://www.porto.trieste.it/wp-content/uploads/2020/05/202005\\_SUSPORT.pdf](https://www.porto.trieste.it/wp-content/uploads/2020/05/202005_SUSPORT.pdf)

The “Motorways of the Sea” (MoS) concept was introduced in 2001 by the European Commission as an alternative to overstretched land transport, aimed at making full use of maritime transport resources as well as inland waterways in the logistics chain. The ADRION region is involved in the development of the Motorway of the Sea of South-East Europe, connecting the Adriatic Sea to the Ionian Sea and the Eastern Mediterranean. This concept seems to badly suit the ADRION geography given the elevated number of scattered islands which cannot be linked by a single corridor (Caralampo Focas, 2004).

At least **seven bottlenecks** can hinder the development of MoS in WB countries, namely: i) inadequate port infrastructure to support intermodality; ii) problematic port-hinterland connections; iii) insufficient railway infrastructure; iv) over-aged vessel fleet shipping; v) lack of synergy among states and economies; vi) absence of large trans-national logistic operators; vii) lack of IT tools (Bešković, 2013).

However, different studies and projects were carried out to test its feasibility. The “East Med MoS Master Plan” identified four corridors: Igoumenitsa - Koper; Venezia - (Igoumenitsa) - Patra - (Korinthos); Igoumenitsa - Ancona - Koper; and Venezia - Koper - Ploče.

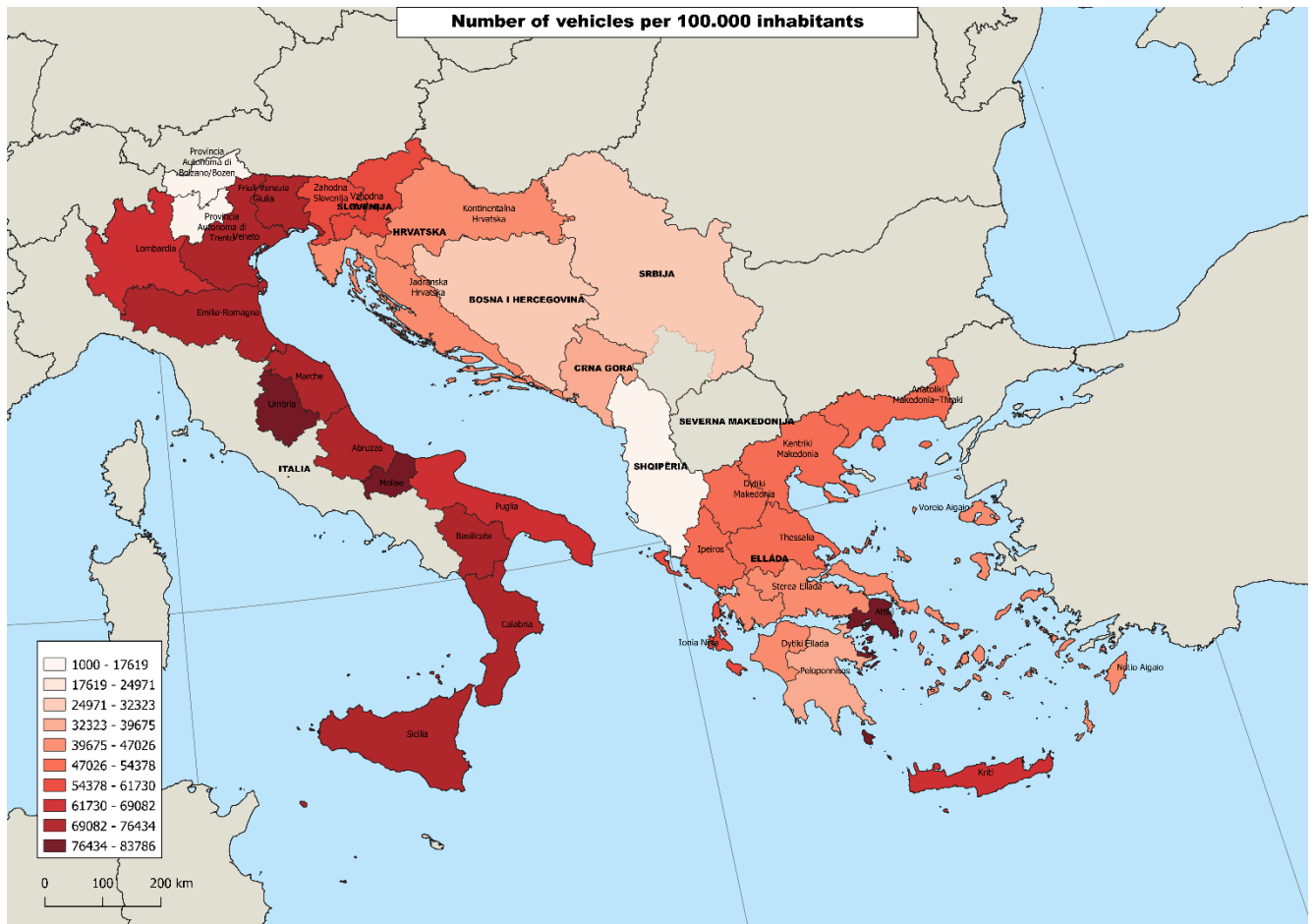
### 1.3.3. ROAD TRANSPORTATION AND SAFETY

When it comes to road transportation and its underlying variables, the picture is quite patchy. Most of the data is not harmonized and some variables are measured for some regions whilst not for others. It is not an easy task to glimpse any trend in this domain, yet it is possible to show some key differences across the ADRION region.

Taking into consideration the number of vehicles<sup>37</sup>, data shows that Attiki is the region with the highest density of motorized vehicles: almost 84,000 every 100,000 inhabitants. Yet, Attiki is an exception among the Greek regions while in Italy the number of vehicles is high from North to South, with the notable exception of Trentino-Alto Adige where the number is slightly above 10,000 every 100,000 inhabitants - the smallest in the ADRION region.

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<sup>37</sup> [https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tran\\_r\\_vehst&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tran_r_vehst&lang=en)



Map 10. Number of vehicles per 100K inhabitants

Source: original elaboration of Eurostat data.

The differences in motorised vehicles is somehow representative of the share of travel made through buses. Italy (data is only available at the national level<sup>38</sup>), has the lowest share of buses in total passenger transport and the highest car density. Greece is the country with the highest share of bus travel and, as said before, exceptions made for Attiki, has generally lower density of cars across its regions.

<sup>38</sup>[https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=sdg\\_09\\_50&plugin=1:](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=sdg_09_50&plugin=1)

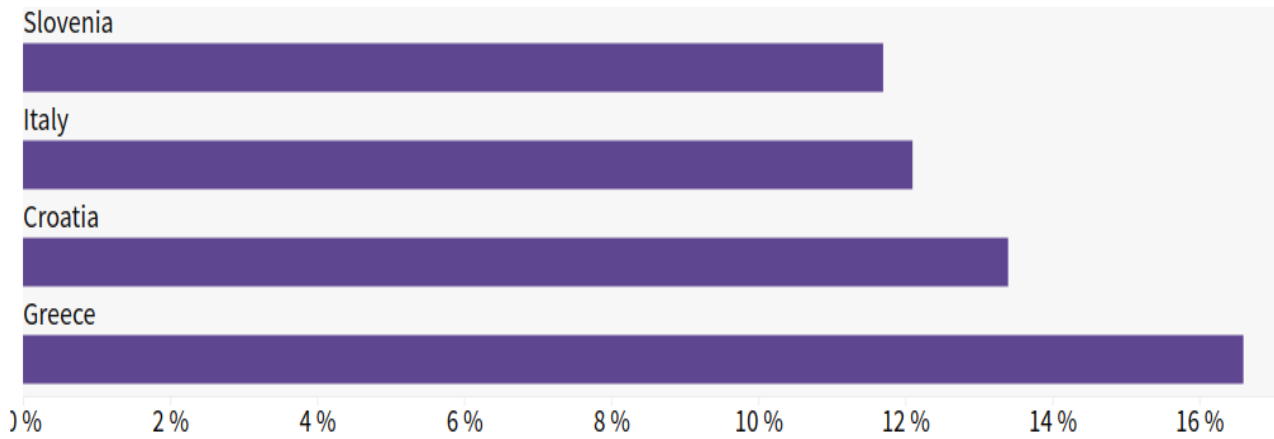
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<https://bihamk.ba/bs/vijesti/informacija-o-saobracajnim-nezgodama-njihovim-uzrocima-i-posljedicama-u-bih-u-2018-god/413>



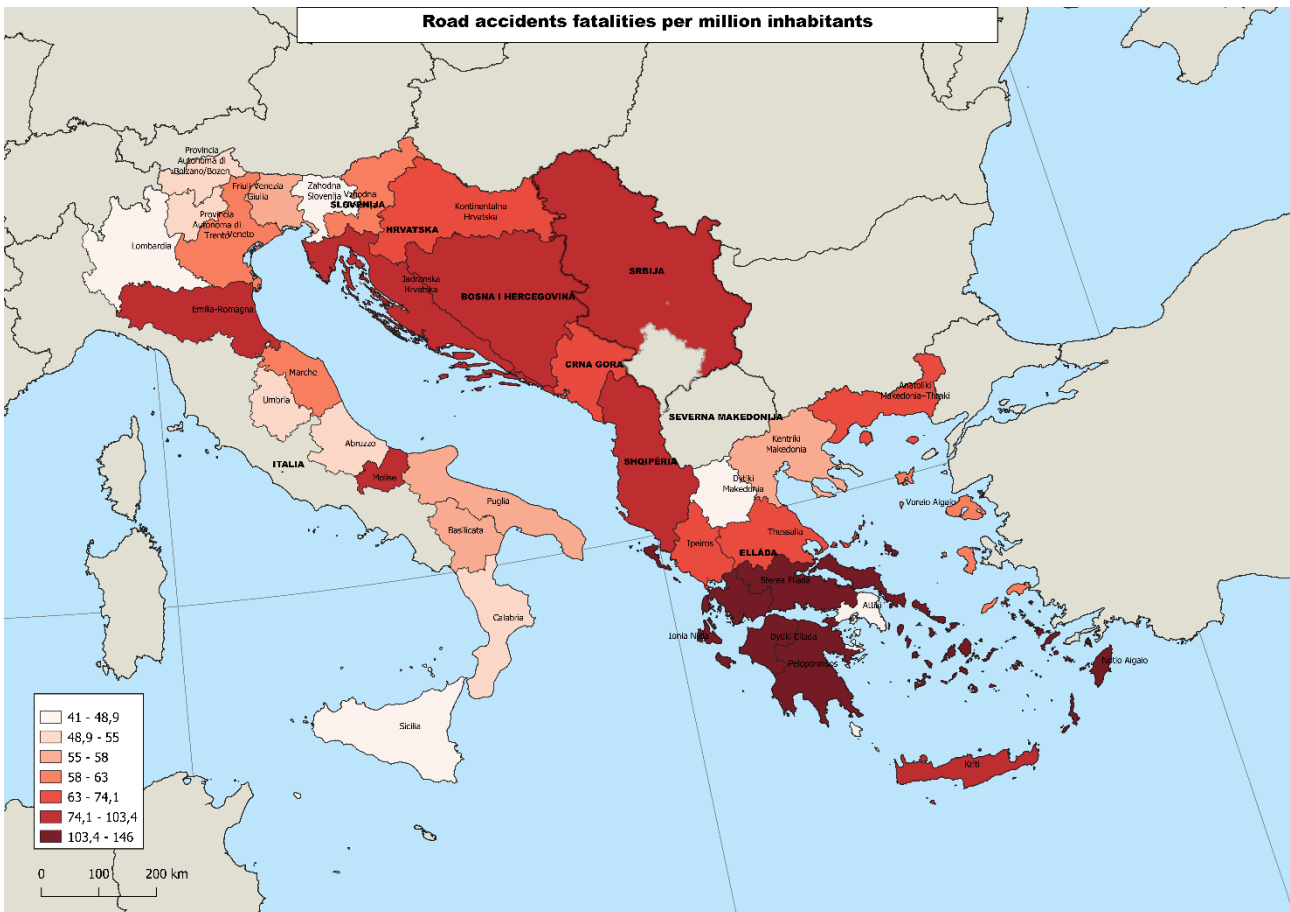
### Share of transport by bus



Graph. 13. Share of bus transport

Source: original elaboration of Eurostat data

These numbers, anyway, do not represent the important measurement of deadly accidents.



Map 11. Rate of road accidents per 1M inhabitants

Source: original elaboration based of Eurostat and national statistical institutes data

As it appears self-evident from the data<sup>39</sup>, when it comes to road safety Greece is leading a worrying rank. Some Greek regions have figures of deaths per million inhabitants due to car accidents that are 2 times higher than the other regions. Besides, also Jadranska Hrvatska and Emilia-Romagna are above the 79 deaths per million average<sup>40</sup>.

These differences may be reduced with policy actions aimed at reducing casualties. Namely, reducing the tolerated blood alcohol level is positively correlated with a reduction of road deaths. Another measure that can be undertaken is placing speed cameras, given that drivers are more diligent in complying with the Highway Code if they fear repercussions.

#### 1.3.4. RAILWAYS

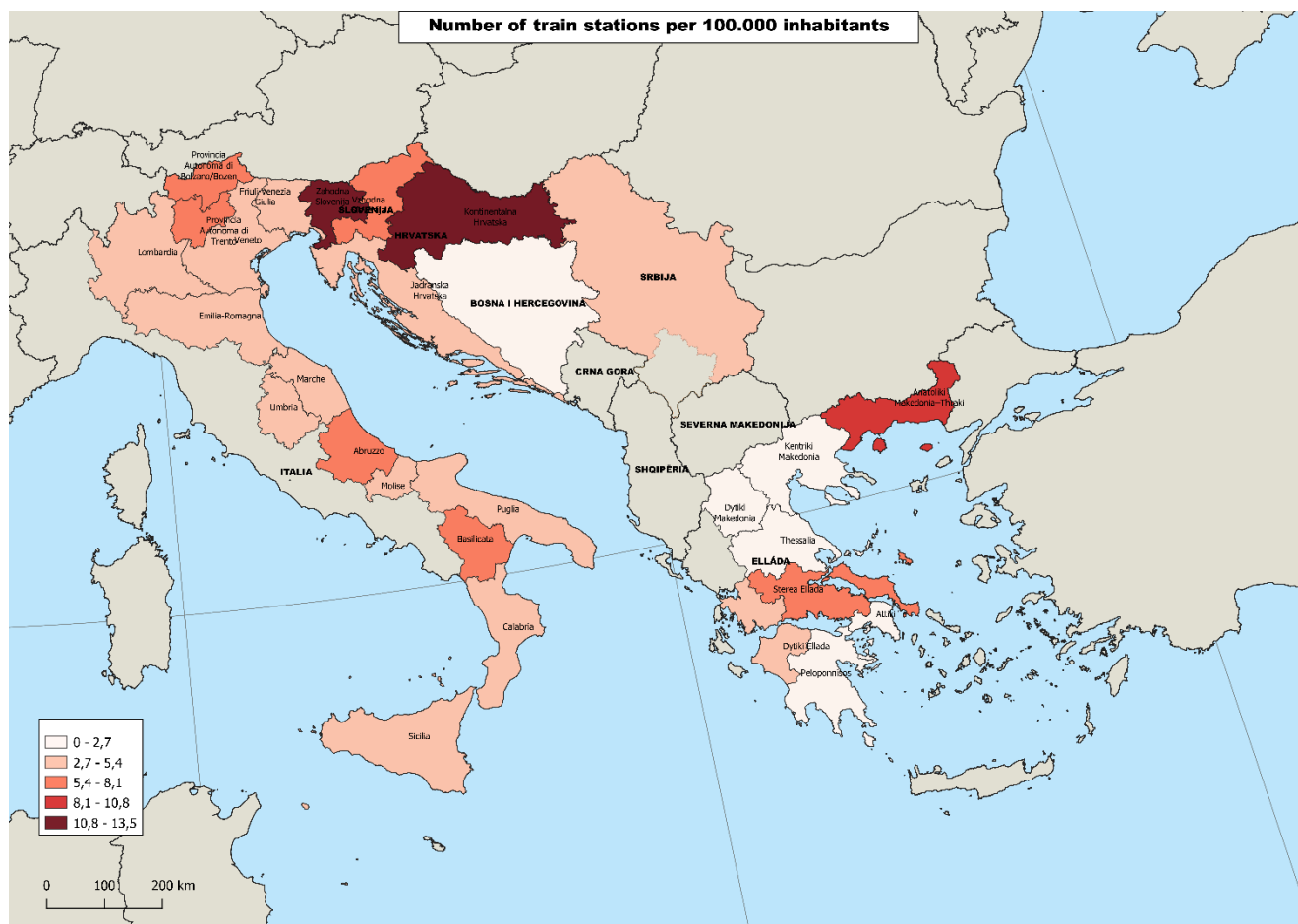
When comparing railway systems and accessibility to trains, it is evident how there are large discrepancies among the ADRION countries. Italian regions, for instance, have similar figures in that concern the **number of train stations** per 100,000 inhabitants. In the other countries with available data, instead, there are major differences. Kontinentalna Hrvatska, for instance, is better served than the Adriatic part of the country. The same comes for Eastern or Western Slovenia. While in Greece there are regions that do not have access to the railway system at all<sup>41</sup>.

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<sup>39</sup>[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Transport\\_accident\\_statistics&oldid=54178](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Transport_accident_statistics&oldid=54178);  
<https://publikacije.stat.gov.rs/G2020/Pdf/G20201050.pdf>; [https://www.monstat.org/userfiles/file/PUBLIKACIJA-%20GODISNJA%20STATISTIKA%20SAOBRAKAJA%202018-cg%20\(002\)\(1\).pdf](https://www.monstat.org/userfiles/file/PUBLIKACIJA-%20GODISNJA%20STATISTIKA%20SAOBRAKAJA%202018-cg%20(002)(1).pdf); <https://bihamk.ba/bs/vijesti/informacija-o-saobracajnim-nezgodama-njihovim-uzrocima-i-posljedicama-u-bih-u-2018-god/413>

<sup>40</sup> <https://www.europeandatajournalism.eu/eng/News/Data-news/Road-deaths-in-the-EU-are-still-way-off-target>

<sup>41</sup> <https://www.europeandatajournalism.eu/eng/Investigations/Don-t-Miss-the-Train>



Map 12. Number of train stations per 100K inhabitants

Source: EDJNet original data

The scarce level of infrastructure is also visible considering the share of people who used the train in 2018: almost 1.5% in Italy, 0.5% circa in Croatia and Slovenia and just 0.15% in Greece<sup>42</sup>.

According to Eurostat, Greece is one of the few EU member states where the **number of passengers** has been decreasing in the last decade, along with Bulgaria, Croatia and Slovenia (Stamatoukou 2020). The country with the worst record being Croatia that lost  $\frac{1}{3}$  of its train passengers in a decade. As for the candidate countries, only North Macedonia made data available and here as well we have a radical reduction of the number of passengers.<sup>43</sup>

But the worst situation is that of Albania where the rail transport has been falling dramatically in recent years, with a share in the transport sector of no more than 1%. The country has a total of 334 km of operation rail lines, but the rail sector's performance is very poor, with maximum speeds significantly lower than road transport outside the city centres.

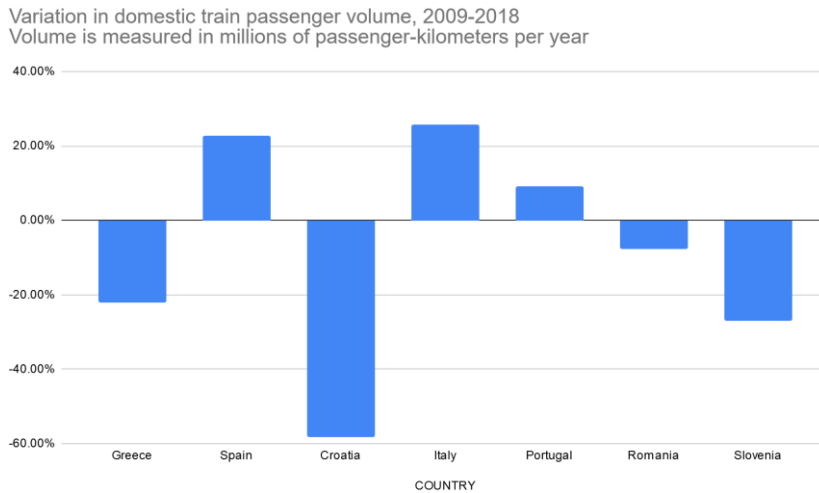
Volumes in million passengers per km have decreased by 63% from 2014 to 2018, while the transported freight is half of what it was in 2014, though it has doubled compared to its lowest level in 2016 (9 million ton per km). Though the intention of the government is to have an operational system and open the rail market in the TEN-T corridors, acting as transit for North Macedonia the sector is lagging behind. Currently

<sup>42</sup> Eurostat, [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=rail\\_pa\\_typepas](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=rail_pa_typepas)

<sup>43</sup> Eurostat, [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=rail\\_pa\\_typepas](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=rail_pa_typepas)

the progress is limited to the preparation of the legal database, the opening of the joint railway station of Tuzi (Montenegro), and the preparation of feasibility studies for internal routes.

Tirana does not have to date a central station and there are intentions to build a light rail line from the city centre to the airport, but practical steps have not been yet undertaken by the authorities. There are not enough measures aimed at ensuring that the railways are made safe through improved signalling and the removal of unauthorized crossings.

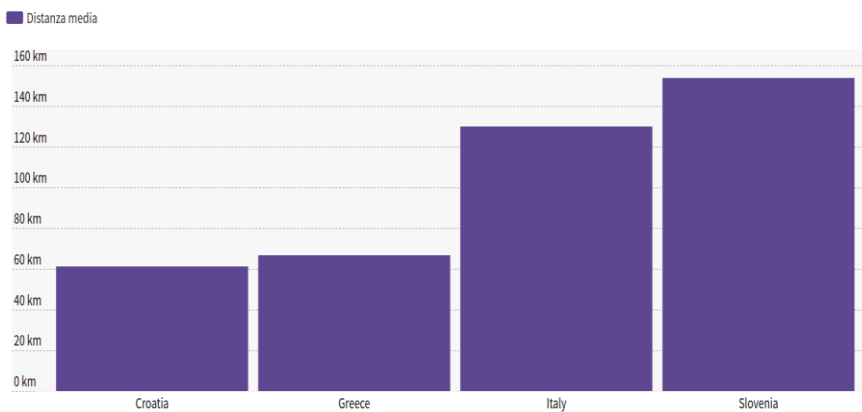


Graph. 14. Variation in domestic train passenger volume, 2009-2018

Yet not every service is the same. As an EDJNet investigation showed (EDJNet 2020), there are wide differences among states when it comes to **affordability** of train tickets. In Italy and Slovenia, for instance, an individual can travel at least twice as much as a Croatian or Greek citizen for the same share of purchasing power (here 1% of average monthly salary).

**Average distance covered by train**

Spending 1% of the average monthly salary



Graph. 15. Distances covered by train with the same relative amount of money

On top of that, an analysis on selected routes showed how, especially for Croatia, short routes are more expensive, and sensibly slower, than moving by car<sup>44</sup>, *de facto* discouraging citizens from more environmentally friendly means of transportation.

Member States national markets are too small to attract investors and there are many border crossing points in a rather small area. Improving the railway network and simplifying border crossing (Schengen and non-Schengen countries) is important and can only be tackled at regional level.

In terms of **accidents**, the Greek railway system is the most affected. According to the most recent data available, Greece ranks first in the EU with regards to the number of deaths from rail accidents in proportion to the kilometres travelled by trains in the country during that year. Greece takes the lead with about 25

<sup>44</sup> <https://www.europeandatajournalism.eu/eng/News/Data-news/These-six-graphs-show-how-affordable-and-fast-trains-in-Europe-are>

victims per year. Problems are mainly caused by unsafe level crossings, poor infrastructure and traffic management systems, and understaffed companies.

According to the data from ERA's "Railway Safety in the EU - Safety Overview 2017", there are 31 unprotected ("passive") level crossings per 100 km of railway in Greece, whereas the EU average is 23. While the primary cause for derailments is the poor state of the infrastructure as well as traffic mismanagement.

The sole provider of passenger and freight rail services in Greece is TrainOSE, which was state-owned until 2017, when it was acquired by the Italian railway company Ferrovie dello Stato Italiane (FSI). Despite the considerable amounts of money spent on safety and the small, ever-shrinking size of its network, the network in Greece suffers from structural issues and requires decisive interventions (Stathatos and Morfonios, 2019).

### 1.3.5. AIRPORTS

Airports are a key infrastructural and strategic asset. Within the ADRION region there are some stark disparities. Italy (considering only the Italian regions that are part of ADRION) and Greece, for instance, have many airports scattered across the country with important volumes of passengers. These flows are important and comprise a large part of the flows of tourists who reach Italy and Greece by international flights.

On the other hand, the other countries in the region are not that developed when it comes to airports. Slovenia and North Macedonia are poorly served and present reliable data only for the airport of their capital city. For the other countries of the region, instead, there is a lack of available data for the volume of passengers. For instance, in Albania only the Airport of Tirana is fully functional and, whilst the project for building a new airport in Vlore has already been discussed, for a country that wants to invest in its touristic attractiveness, having just one airport, hence few and more expensive flights, is a limitation.

Country	Passengers in 2019	Airports	Population	Passengers/Population
Greece	53.78 millions	39	10.72 millions	5.01
Croatia	11.35 millions	7	4.08 millions	2.78
Italy (Ardion regions)	89.17 millions	36	37.28 millions	2.39
North Macedonia	2.67 millions	2	2.08 millions	1.28
Slovenia	1.72 millions	1	2.08 millions	0.83

Table 3. Main data on air traffic

For Bosnia, Serbia and Montenegro the situation is similar: there is no harmonized data as for the other countries but, generally speaking, the main airport is the one serving their capital city and smaller ones, when there, are not ready to serve high numbers of passengers.

### 1.3.6. MULTIMODAL TRANSPORT

Multimodality or combined transport refers to the use of different means on the same journey, applying to both passenger and freight transport. The **lack of a reliable rail system** in most of the ADRION region hinders the creation of a well-functioning transport infrastructure. Multimodal transport is particularly limited, curbing the potential exchange of goods both from the coast to the hinterland and vice-versa.

A few major ports in the ADRION region seem to buck the negative trend. The port of Trieste in Italy has a leading position at national level in terms of modal share of rail freight transport and aims to fully integrate its whole logistic supply chain at local and regional level in the global multimodal logistics network. The port of Bar, in Montenegro, is integrated with the Belgrade-Bar railway and road traffic network, making it an important link of the intermodal transport chain (Schmidt 2019). Thanks to the Chinese investments,<sup>45</sup> the Port of Piraeus is also planning to develop multimodality. Lastly, the port of Durrës is the first multimodal terminal now operational in Albania. The country aims to strengthen four other ports along the coast, from north to south. Feasibility studies for two intermodal logistics centres have been undertaken. However, implementation seems to be on a slow path and it is not supported by investments in the rail system.

Within the framework of the Trans-European Transport network (TEN-T), several initiatives contributed to the integration of the WB in the European mobility space. The South-East Europe Transport Observatory (SEETO) was launched in 2004 and in 2009 the Western Balkans Investment Framework (WBIF) which combines funds from Council of Europe Development Bank (CEB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Kreditanstalt für Wiederaufbau (KfW) and the World Bank as well as bilateral donors.

The extension of the TEN-T to the WB has entailed investments in the railway system in Serbia and North Macedonia for the Orient/East-Med Corridor<sup>46</sup> as well as in the road system in Bosnia and Herzegovina for the Mediterranean Corridor. The Transport Community<sup>47</sup> is of importance to connect the WB to the EU Single Transport Area, but greater commitment from national authorities is needed and it is contained in the 2017 community treaty on transport.

The “connectivity agenda” became a key chapter for WB in the framework of the EU enlargement process when the Berlin process, a diplomatic initiative born in 2014 to relaunch the region’s integration process, put a renewed emphasis on building transport and energy infrastructure to better connect it to the EU. Since 2015 it has given a strategic framework for combining the main EU financial instruments with the need to improve and reform the transport connections sector all over the region.<sup>48</sup>

In each regional annual meetings, connectivity has been at the centre of any political decision as has been confirmed by the Western Balkans Strategy of the European Commission of February 2018 as well as in the last Zagreb Summit (May, 2020) where has been affirmed that future initiatives in the region should focus on “strengthening connectivity in all its dimensions: transport, energy, digital and people-to-people, including tourism and culture”.

From an investment perspective, according to the European Investment Bank (2018), over the past years (2009-2017), the transport sector in the Western Balkan economies has received considerable investment, estimated at EUR 12.2 billion by SEETO and more is expected for the next years. Road (EUR 9.9 billion) and

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<sup>45</sup> See the paragraph on Chinese investment below.

<sup>46</sup> [https://ec.europa.eu/transport/themes/infrastructure/orient-east-med\\_en](https://ec.europa.eu/transport/themes/infrastructure/orient-east-med_en)

<sup>47</sup> [https://ec.europa.eu/transport/themes/international/enlargement/western-balkans/transport-community\\_en](https://ec.europa.eu/transport/themes/international/enlargement/western-balkans/transport-community_en)

<sup>48</sup> [https://ec.europa.eu/transport/modes/rail/ertms/corridors/mediterranean-corridor\\_en](https://ec.europa.eu/transport/modes/rail/ertms/corridors/mediterranean-corridor_en)

rail (EUR1.8 billion) account for the bulk of that effort. The financing sources were mostly the national budgets as well as loans and grants from International Financial Institutions.

At date, 55 infrastructure projects have started and partially implemented – 23 of which focus on road infrastructure and 22 out of 55 concentrate on railway projects. For those initiatives, the EU has dedicated a EUR 1 billion grant to facilitate and address the extensive infrastructure needs of the Western Balkans. According to the last data, the WBIF has mobilized a total of EUR 9.4 billion of investments, EUR 0.82 billion grant that have been already awarded and EUR 3.3 billion of loan<sup>49</sup>.

Despite the technical and financial support from the EU and other international donors, the absorption capacity in each WB country in the field remains limited and the requirements of the EU acquis are still beyond local administrative capacity (Madhi 2018).

#### 1.3.6.1. Internal areas and tourism

In the ADRION territory, the internal areas are potentially interested by tourism-related development actions, and these are facing a double bottleneck by the point of view of connectivity. This is true both as far as the broadband distribution is missing thus hampering the Internet connectivity, and in that concerns the last-mile public transport service. Distances from the main hubs or from the major railways / motorways / seaports are often important and they miss an appropriate multimodal approach to transport, such as common ticketing, synchronisation of services, specific holiday timetable etc.

#### 1.3.7. THE IMPACT OF CHINESE INVESTMENTS

The Chinese strategy for commercial growth named the “Belt and Road Initiative” (BRI) exploits the existing routes and hubs but also builds new infrastructure. Officially launched by President Xi Jinping in 2013, the BRI aims to connect the major Eurasian economies.

South-East Europe represents its natural gateway to Europe, and a testing ground for China’s growing European ambitions through the construction of roads, investments in ports, power grids or railways.

In these last years, China's infrastructure investments were mainly focused in Greece and Serbia. In Greece, China controls the strategic port of Piraeus - through by the government-owned shipping and logistics giant COSCO (China Ocean Shipping Company) - since 2016, when the company acquired 51 percent of Piraeus Port Authority for €280.5 million, turning it into a hub for Asian container vessels traveling via the Suez Canal to and from Europe (Martino 2017).

In November 2019, during an official visit by Chinese President Xi Jinping to Athina, China and Greece agreed to push ahead with a 600 million euros investment by COSCO, with the goal of turning the port of Piraeus into a major cruise hub and transshipment logistics centre for travel and trade between Asia and south-eastern Europe, potentially the biggest in Europe.

In February 2020, an expansion project of the port's cruise terminal was launched, aimed to better accommodate "new generation" cruise ships of over 280 meters long and significantly increase the number of tourists reaching Piraeus every year (Xinhua 2020). In the meantime, apart from the initial maritime focus, Chinese investments in Greece have expanded to other sectors, most prominently tourism, retail and energy.

China is increasingly active in modernising the infrastructural network in the Western Balkans, especially in Serbia, but also in Montenegro, Bosnia and Herzegovina and North Macedonia, with the aim of connecting the port of Piraeus to the heart of Europe.

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<sup>49</sup> <https://www.wbif.eu/sectors/transport>

Currently, the main active project is the modernization of the Beograd-Budapest railway, financed for 85 percent (EUR 2.2 billion) by China Export-Import Bank. In Serbia, several Chinese companies are also involved in building sections of the highways part of the Pan-European Corridors X and the so-called Corridor XI that connects Serbia with Montenegro (Martino 2018). In North Macedonia, the two highways, the Miladinovic-Shtip and the Kichevo-Ohrid (EUR 520 million) are being implemented by Sinohydro Corporation, while the Peljesac bridge in Croatia, connecting the Croatian mainland to the Dubrovnik “enclave”, is being built by a consortium led by the China Road and Bridge Corporation (CRBC).

In Albania, up to 2015 the value of Chinese investments was up to 87 million USD and increased significantly in 2016 to reach a value around EUR 700 million (Embassy of the PR of China, 2017). By the end of 2018, the investments’ value was above EUR 700 million. Major projects include the management of Tirana International Airport, Bankers Petroleum, etc. There has also been an increase in Chinese tourists (17,000 in 2018, or 60% more than in the previous year) (Embassy of the PR of China, 2019).

Chinese “investment” in the region often refers to concessional loans from Chinese policy banks. This is financing that needs to be paid back, with interest: there is a serious risk that, in the medium and long term, Chinese loans might overwhelm the Western Balkan economies, especially the smaller ones (Zeneli 2020).

### 1.3.8. ENERGY NETWORKS

Connecting the energy networks for the electricity and natural gas distribution is a crucial theme, both improving the efficiency in energy use and moving towards a stronger integration of economies, beyond borders.

Electricity will have an increasing role and share in all the national energy systems through the Adriatic-Ionian Region as one of the drivers in the energy transition towards a low-carbon economy. It is in the interest of all EUSAIR Member States to interconnect their power grids, as a means to optimise the deployment of low-carbon power generation, to maintain grid stability and security while expanding the use of intermittent and diversified power sources. Electricity storage, digitalisation of the power grid and smart grids will offer further opportunities for reducing costs and improving the service.

The issue is peculiarly focused by EUSAIR flagships initiatives (Pillar 2), targeting larger money investments, beyond the direct reach of an ETC programme, whose task would be study the local territorial and social impact of such infrastructures.



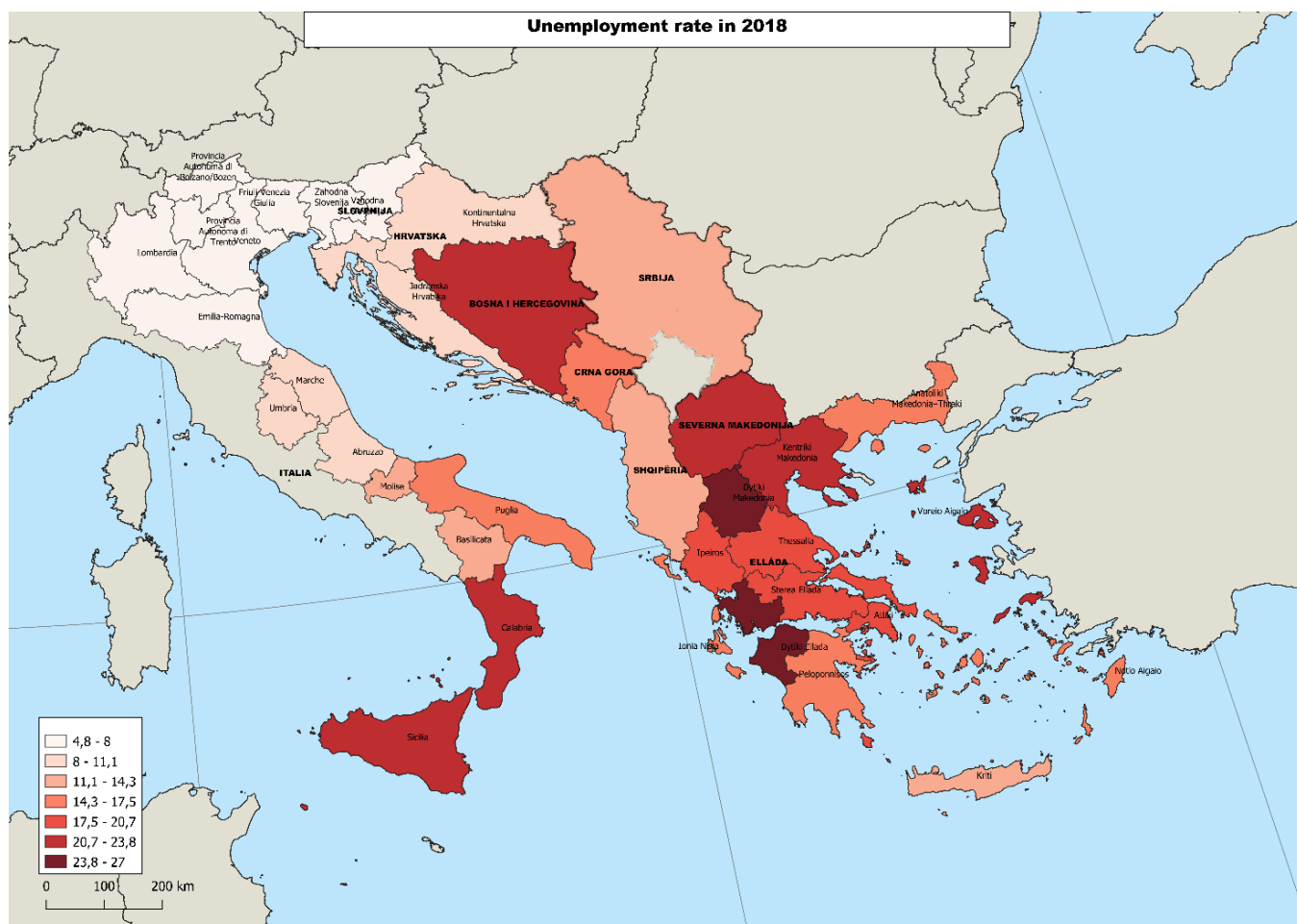
## 1.4. Policy objective 4 More Social Europe

### 1.4.1. SOCIO-ECONOMIC DISPARITY AND SOCIAL RISK

The ADRION region faces a number of challenges in the social realm. It is a region of deep economic disparities. The ADRION region shows acute internal differences in terms of economic prosperity. Looking at the internal disadvantaged areas, one may find there is a great difference between the mountainous areas of Albania and those of Lombardia or Trentino-Alto Adige in Italy, and these differences are significantly larger than those existing between Tirana and Milano or Trento. But the differences among the ADRION regions are also wide when it comes to socioeconomic variables.

**Unemployment** for instance is due to great variations within the ADRION region: from the 4.5% of Trentino Alto Adige to the alarmingly high 27% of Dytiki Makedonia, in Greece, a country that suffers from diffused unemployment in all of its regions.

These differences does not seem influenced by being or not a Member State of the European Union: as we can see, Italian regions have stark differences from North to South, to the extent that Calabria and Sicily, for instance, have unemployment levels similar to those of Bosnia and Herzegovina, and higher than Albania, Serbia, and Montenegro.



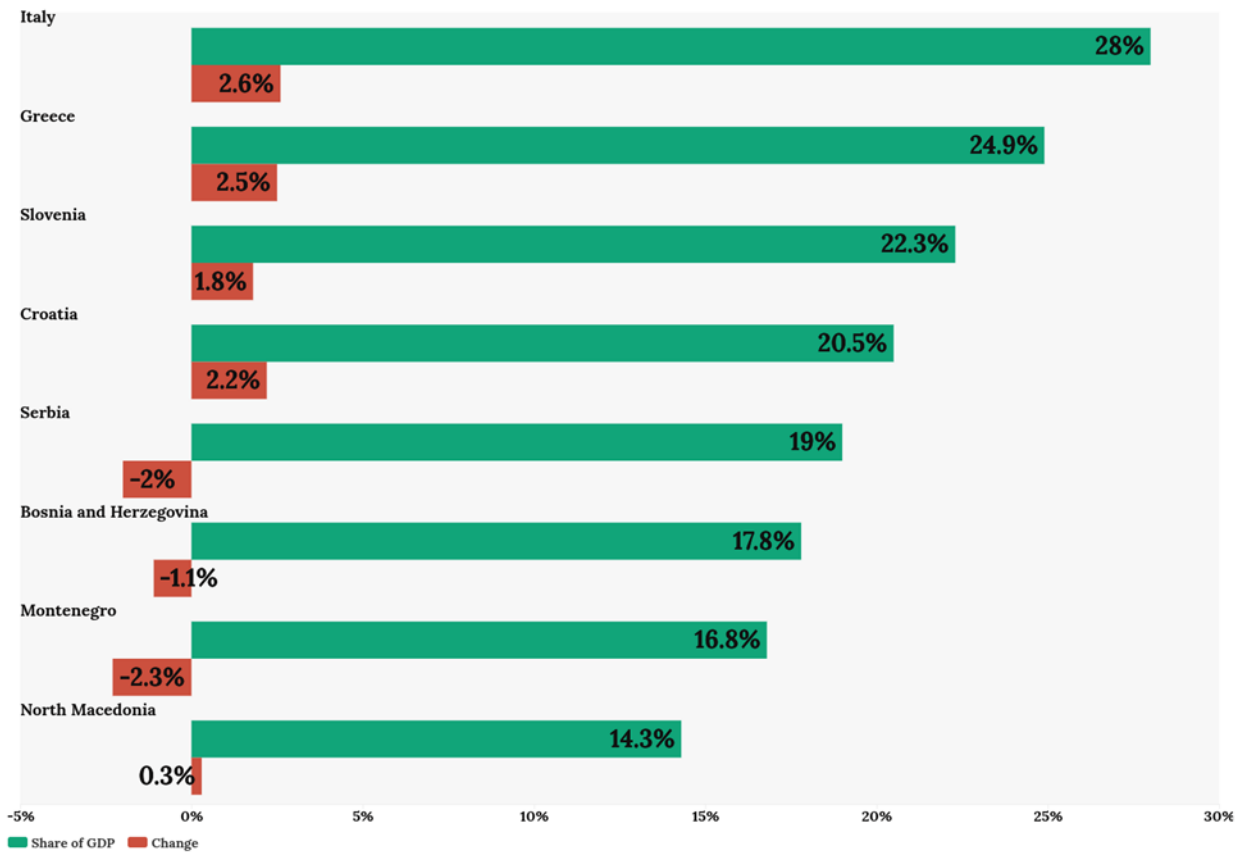
Map 13. Unemployment rates

Source: original elaboration of Eurostat data

In this situation, for many people, the reliance on the welfare state is crucial. Yet, in the aftermath of the 2008 economic crisis, not every country in the region raised its **social spending** and, among the ones who did that, the increase has been limited. Italy leads as the country that raised its GDP share in social expenditure, whilst Greece has the second highest share of GDP allocated for welfare.

### Total share of GDP spent in social protection in 2017 and relative change

Relative change as the difference between 2018 and 2008 (or oldest available data)

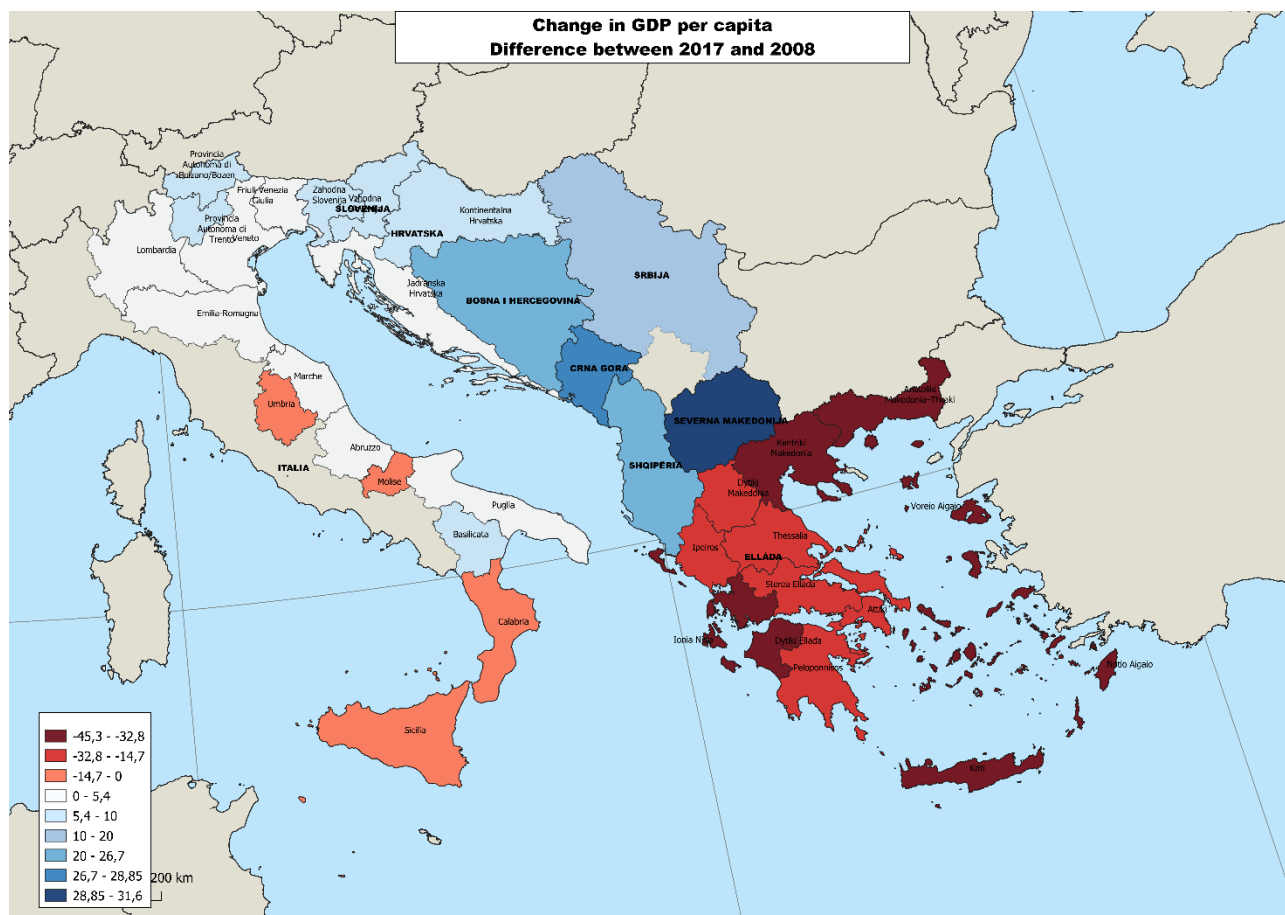


Graph. 16. Share of GDP allocated to social protection

Source: original elaboration of Eurostat data

Apparently, Albania, not included in the Eurostat dataset, is the country that spends less in social protection: 9.17% of its GDP in 2018 (Monitor.al, 2018).

Yet the share of GDP spent for social security may be misleading, especially if the nominal GDP has relevant fluctuations. Taking for instance the Greek example, even considering that the country spends a quarter of its GDP in social expenditure, it must be considered how much the GDP has changed in the last few years, in the economic crisis' aftermath.



Map 14. GDP per capita changes

Source: original elaboration of Eurostat data<sup>50</sup>

In light of this, it is by no surprise that the number of persons at risk of poverty or social exclusion in Greece rose from the 28.1% of 2008 to the 31.8% of 2018 (a variation of almost +12%), an extraordinarily increase if we consider that the only other country (according to the available data, Albania and Bosnia and Herzegovina are missing) who saw its share of people at risk of poverty increase, besides Greece, has been Italy - but with a relative change of 4.5% for the same period.

Generally speaking, in 2018, 21.9% of the population of the EU was at **risk of poverty or social exclusion**. In North Macedonia the percentage was 41.1; in Greece 31.8; Serbia 34.3; in Italy 27.3; in Croatia 24.8; in Slovenia 16.2.<sup>51</sup>

Finally, it is worth looking at the 2018 Oxfam's CRI index, the Commitment to Reducing Inequality (CRI) Index, that ranks countries based on what their governments are doing to tackle the gap between rich and poor.<sup>52</sup> The index combines three elements: social spending, progressive taxation policies and labour rights. In this field the highest **inequality rate** is that of Serbia that ranked 73<sup>rd</sup>, at global level and Albania 66<sup>th</sup> while Slovenia 12<sup>th</sup>; Croatia and Italy 16<sup>th</sup>; Greece 37<sup>th</sup>.

<sup>50</sup> Eurostat, <https://ec.europa.eu/eurostat/databrowser/view/tgs00005/default/table?lang=en>

<sup>51</sup> [https://ec.europa.eu/eurostat/databrowser/view/t2020\\_50/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/t2020_50/default/table?lang=en)

<sup>52</sup> <http://www.inequalityindex.com/>. The previous year Albania scored 149th showing the limited reliability of data from some countries <https://exit.al/en/2017/08/07/oxfam-albania-one-of-the-most-unequal-countries-in-the-world/>.

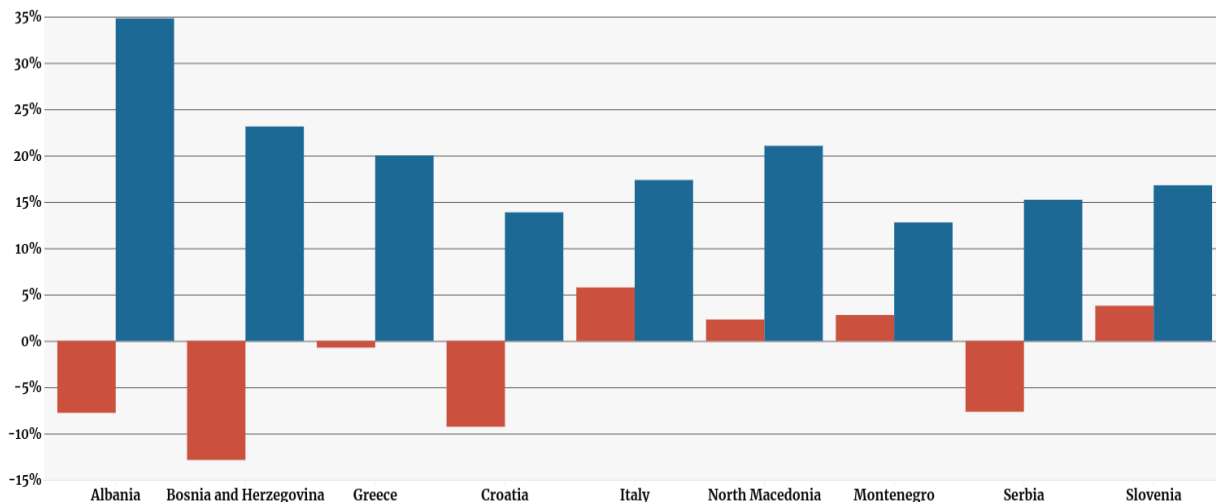
### 1.4.2. DEMOGRAPHIC TRENDS: DEMOGRAPHIC DECLINE AND EMIGRATION

The demographic trends show an ageing population in a context where consistent emigration flows are associated with immigration. There is an actual **demographic decline** in most ADRION countries, either because of low fertility rates or because of depopulation that is being widely discussed. Fertility rates are especially low in the Italian and Greek regions, with 1.4 children per woman on average (Eurostat 2020). Except for the regions in Northern Italy, all the other Italian ADRION regions are among those with the lowest fertility rates in Europe, with Basilicata performing particularly bad. The other regions or countries in the area for which there is data result below the EU average when it comes at fertility rate, except for Vzhodna Slovenija and Montenegro.

The demographic situation of the ADRION region is worrying especially if considering non-EU countries. Generally speaking, the median age has grown by 20% since 2000 for every country, except for Albania, that saw its median age rise by 35% in two decades. Yet this growth, if accompanied by significant population decline as in Albania, Bosnia and Herzegovina, Croatia, and Serbia, signals that in all probability the younger generations are migrating from their countries of origin looking for a better life abroad.

#### Population and median age relative change in the Adrion region

From 2000 to nowadays



Graph. 17. Population and median age

Source: original elaboration of World Bank data<sup>53</sup>

This could lead to unsustainable welfare, where there won't be enough people in working age, therefore taxpayers, to sustain the costs of the State.

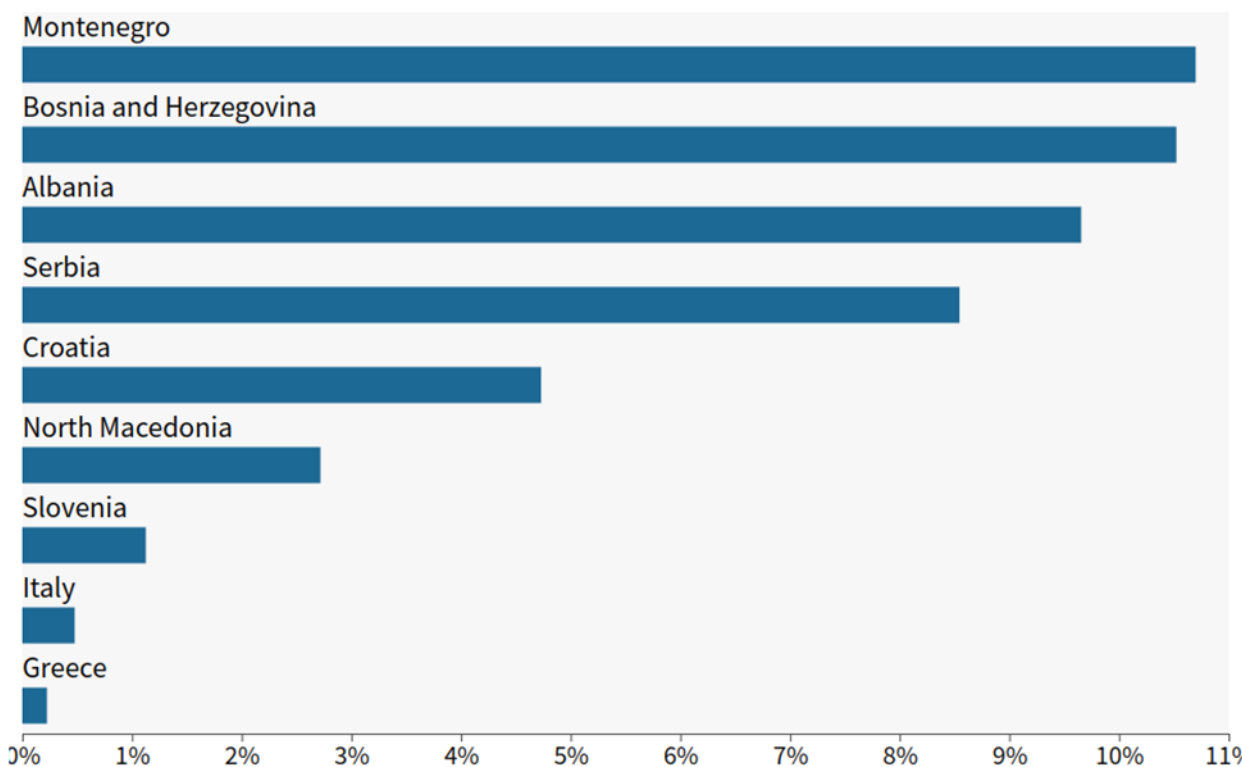
Yet there are at least two different factors that have to be taken into consideration when trying to explain the effects of emigration. First of all, for how high emigration numbers may jeopardize the labour market and create an unwieldy situation for policy makers, it has some beneficial outcome when it comes to the economy.

In countries with lower purchasing power, that have a generally weaker currency compared to rich countries, the sums of money that are sent home by emigrants make up for relevant GDP shares. This is

<sup>53</sup> <https://data.worldbank.org/indicator/sp.pop.totl> and <https://data.worldbank.org/indicator/sp.pop.1564.to.zs>

evident in countries such as Albania, Bosnia, and Montenegro in which 10% if not more of the GDP comes from remittances. It is by no coincidence in fact that Albania instituted a dedicated ministry for the diaspora.

### Percentage of GDP from remittances



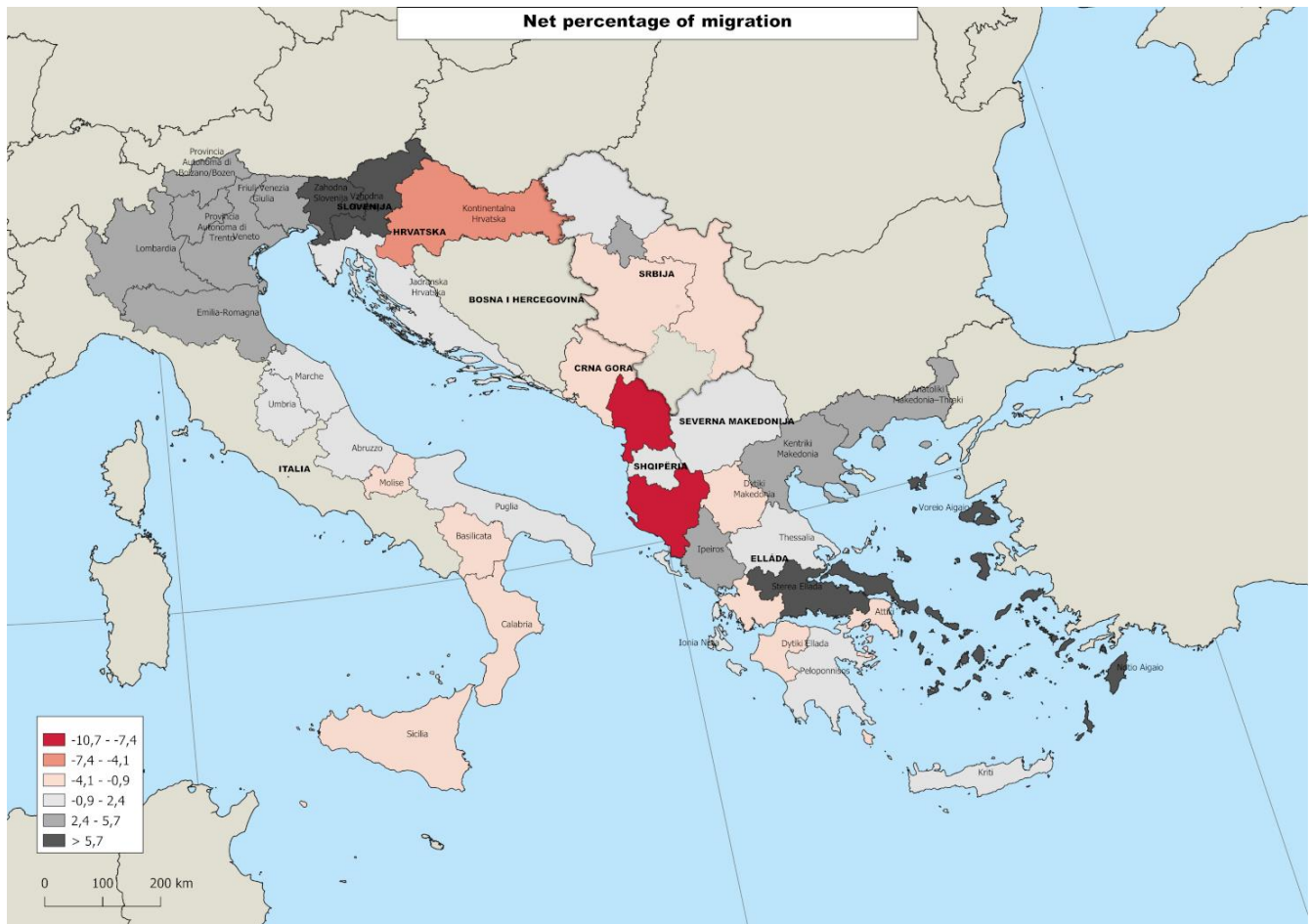
Graph. 18. GDP originated by remittances

Source: original elaboration of World Bank data<sup>54</sup>

Also, far from being only inter-national, emigration is also intra-national. As the data<sup>55</sup> show, there are differences among the sub-national administrative areas when referring to net immigration or emigration. Countries like Albania and Serbia, for instance, have a clear loss of population in rural areas and see their capital cities and the surroundings growing due to positive net migration. In Italy as well this phenomenon can be seen by the stark differences between southern regions (that are losing people) and northern ones (that welcome new workforce).

<sup>54</sup> World Bank, <https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT>

<sup>55</sup> <https://ec.europa.eu/eurostat/databrowser/view/tgs00099/default/table?lang=en>



Map 15. Net percentage of migration

Source: Eurostat, own elaboration<sup>56</sup>

According to the latest Eurostat report on this matter<sup>57</sup>, most of the ADRION countries have neutral balances of migration when considering **skilled labour**: they tend to lose some workers but also gain others from third countries. The only notable exception is Croatia, which has witnessed high numbers of emigration within its skilled labour and is in a shortage of workers in its labour market (Rolandi, 2019).

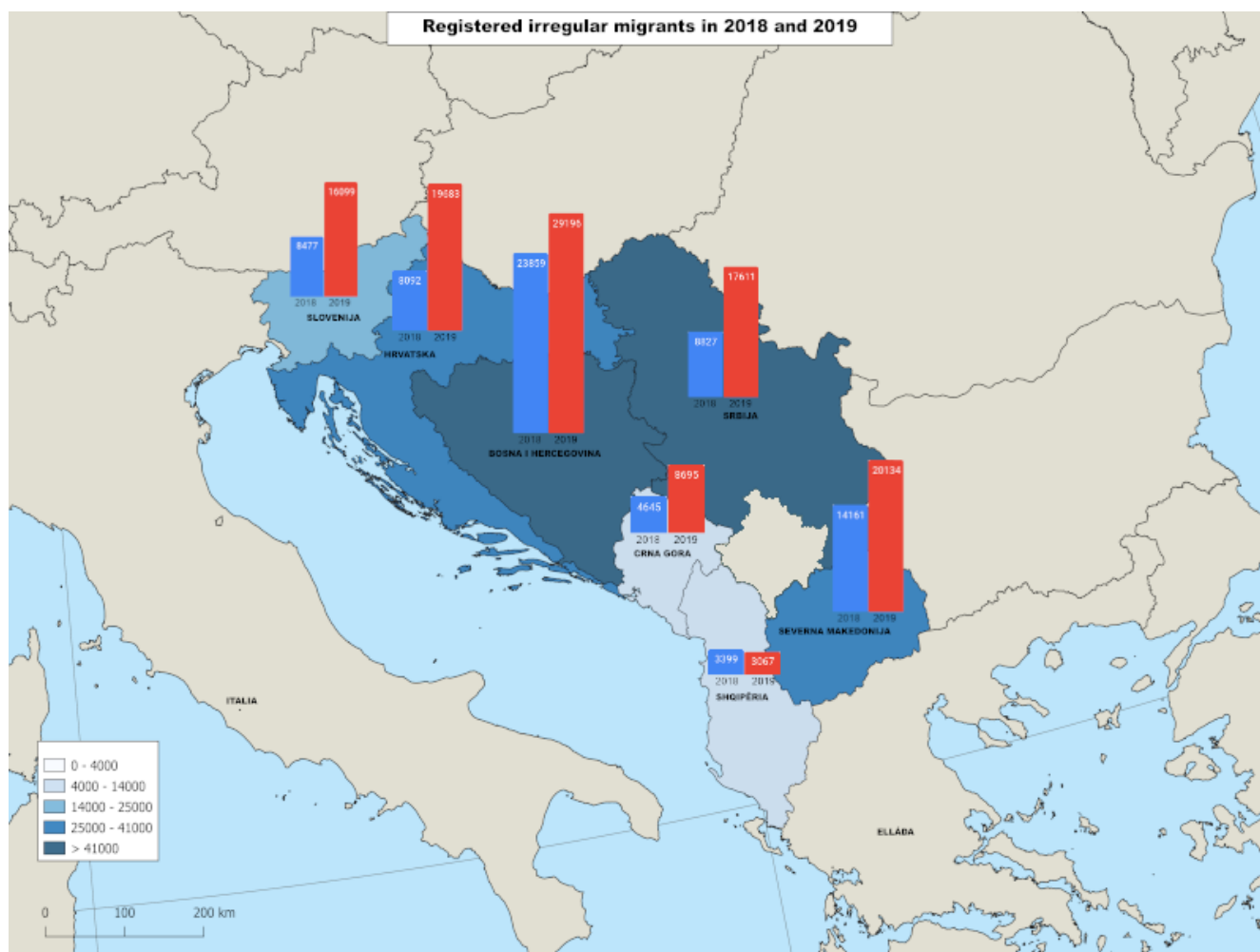
#### 1.4.3. IMMIGRATION ON THE BALKAN ROUTE

The ADRION region experiences a high emigration rate but is also interested by geopolitical turmoil in other regions that generate immigration waves. Two main migration routes in the Mediterranean directly involve the ADRION region: the Central Mediterranean and the Balkans route.

The latter reached its peak in 2015 with the major influx of one million people crossing the Balkan peninsula on foot in a few weeks. The EU-Turkey deal (EU Council, 2016) - according to which Turkey agreed to host asylum seekers coming from the middle East in exchange for financial assistance from the EU - limited the flows from 2016 onwards. Yet over time the people that reached the Balkan route have been increasing, according to IOM data. In 2020, the new developments in the Syrian conflict entailed a new population movement in the region and migratory pressure in the direction of the EU (Reuters 2020).

<sup>56</sup> Eurostat, [https://ec.europa.eu/eurostat/cache/metadata/en/demo\\_r\\_gind3\\_esms.htm](https://ec.europa.eu/eurostat/cache/metadata/en/demo_r_gind3_esms.htm)

<sup>57</sup> Eurostat, 2018, Study on the movement of skilled labour



Map 16. Number of registered irregular migrants

Source: IOM<sup>58</sup>

On the Balkan route asylum seekers generally come from the Middle East, and Central and Eastern Asia. But lately many African and North-African migrants are opting for the Balkan Route instead of the Central Mediterranean that has become more dangerous from 2017 onwards (Frontex, 2019).

The Balkan route repeatedly changed shape but in early 2020, the main corridor through which migrants reach Europe goes from Turkey to Croatia, passing through Greece, North Macedonia, Serbia, and Bosnia and Herzegovina.

Greece, that is one of the entry points in the EU, has been facing migrant waves since the early 2000s (Deutsche Welle, 2019), but it is still unable to host asylum seekers in inadequate facilities and process their requests in due time (Stamatoukou, 2019; 2019a).

At the moment the Bosnian-Croatian border around the town of Bihać is a crucial crossing point. Here several violations of asylum seekers human rights (inadequate conditions in the camps as well as police violence) took place and the case was repeatedly examined by EU institutions.

<sup>58</sup> <https://dtm.iom.int/reports/dtm-mediterranean-%E2%80%93-western-balkans-overview-2019>

The situation for asylum seekers in the WB is generally problematic as the countries in the region are seen as transit countries by migrants but are actually being transformed into hosting countries due to the sealing of EU borders.

All over the WB public administration (local as well as regional levels) and the civil society/NGOs showed significant resilience in front of the migration challenge. But to face this geopolitical issue, the region should advocate a pan-EU response to allow the countries involved to respond in compliance with EU norms.

#### 1.4.4. SOCIAL RIGHTS IN THE LABOUR MARKET

The European Pillar of Social Rights, signed in November 2017, builds upon 20 key principles structured around three categories: equal opportunities and access to the labour market, fair working conditions and social protection and inclusion. (EU Commission, 2017). The implementation of the European Pillar is supported by a Social Scoreboard to track trends and performances.

The Social Scoreboard allows to detect key employment and social problems and to assess convergence or divergence patterns across Member States.

#### 1.4.5. EQUAL OPPORTUNITIES AND ACCESS TO THE LABOUR MARKET

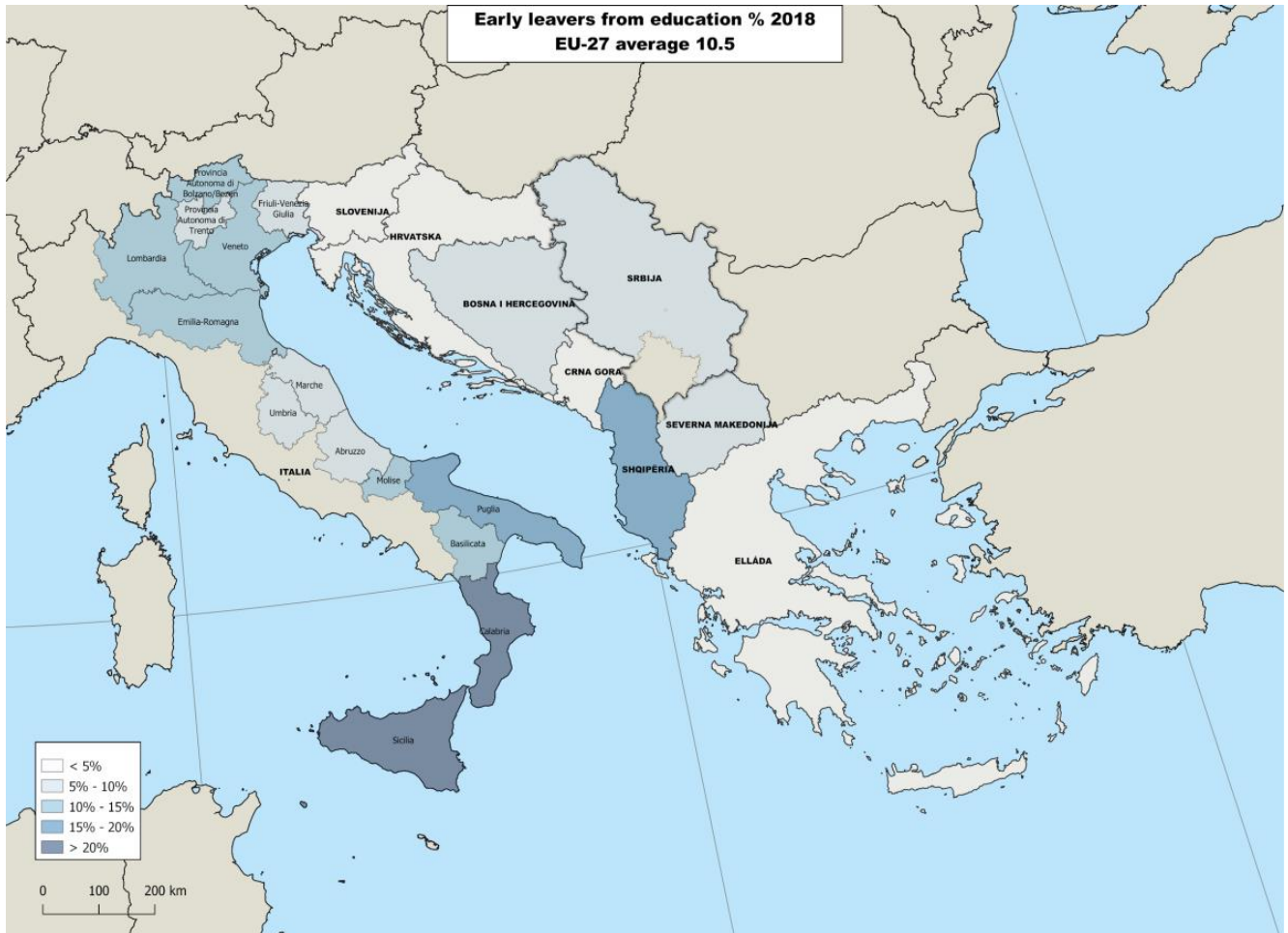
We considered first the “Equal opportunities and access to the labour market”, where the level of education and acquisition of skills plays an important role. As noted in the Joint Employment Report 2019, the EU has almost reached the target on early school leaving rate of 10%<sup>59</sup>. However, large differences persist across and within Member States (European Commission 2019j).

Early leavers from education and training denotes the percentage of the population aged 18-24 having attained, at most, lower secondary education and not being involved in further education or training. What emerges from the data referring to the ADRION region is the long-lasting positive legacy of socialist regimes whereby post-Yugoslav countries maintain a low level of school abandonment as compared to Italy. The analysis shows that Croatia has the lowest percentage of leavers aged 18-24 from education and training (3.3%), while Albania is the worst performing country (17.4%). Sicily has notably the highest percentage of early leavers in the ADRION region (22.1%). (Data for Bosnia and Herzegovina refer to 2017).

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<sup>59</sup> Lowering the percentage of early school leavers under 10% is a key target of the Europe 2020 Strategy, in order to pursue a smart, sustainable and inclusive growth.

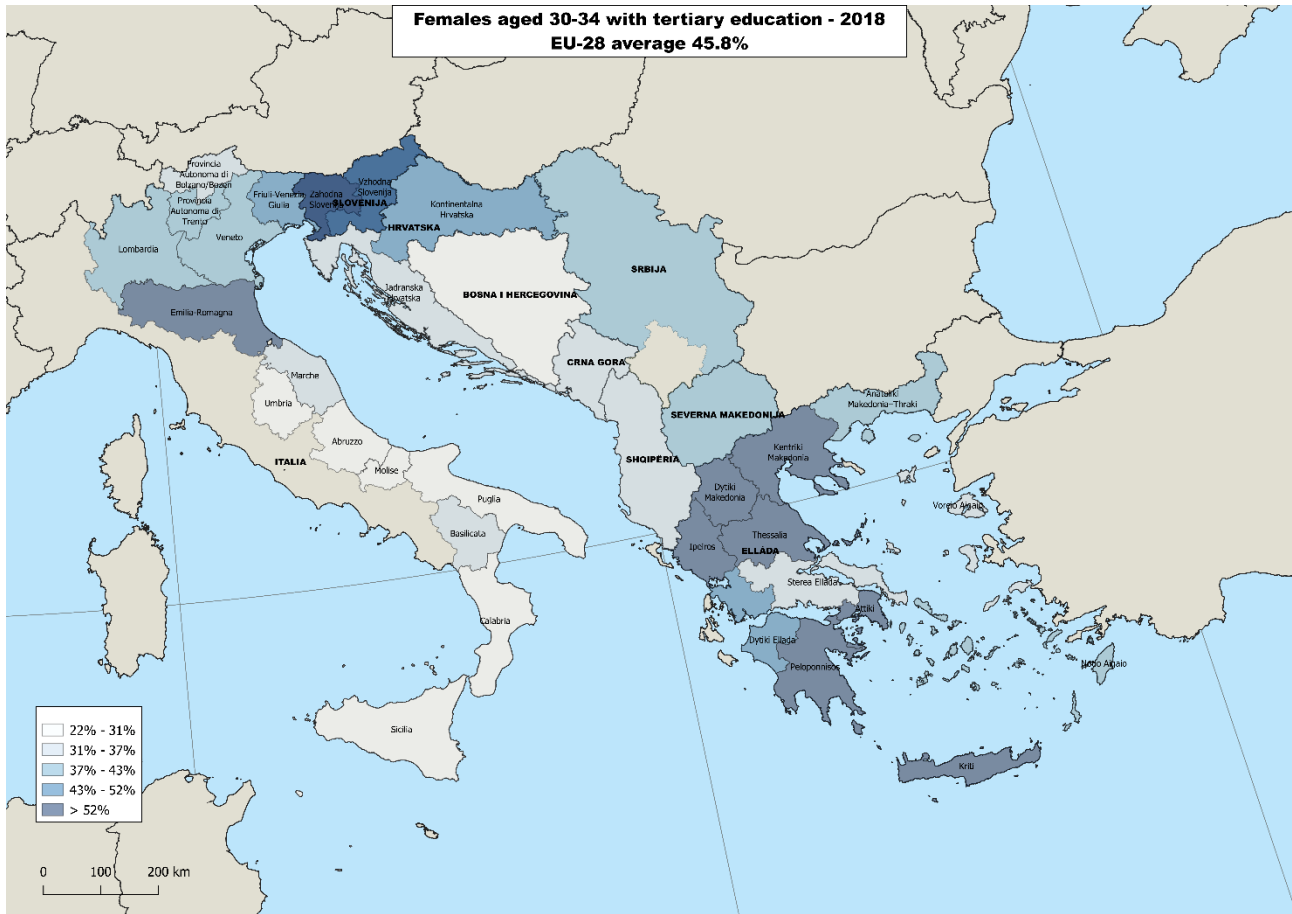




Map 17. Percentage of early leavers from school

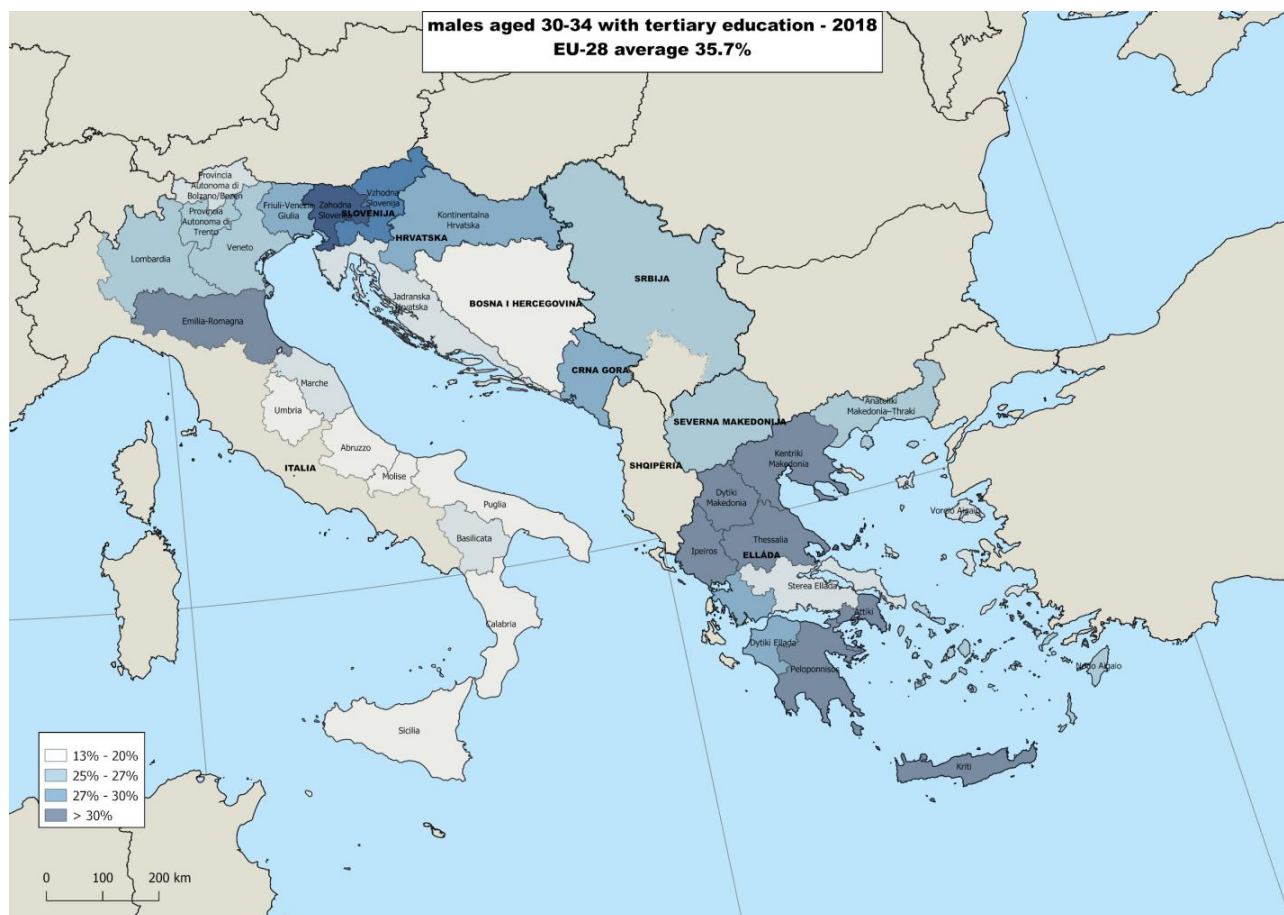
Source: Eurostat, InStat and Ministry of Civil Affairs of Bosnia and Herzegovina, own elaboration

The figures for the tertiary education attainment show a considerable gender gap in the percentage of graduates. In every unit considered in the ADRION region, the percentage of women aged 30-34 with tertiary education is higher than the percentage of men.



Map 18. Percentage of women in tertiary education

Source: Eurostat and the Agency for Statistics of BiH, own elaboration



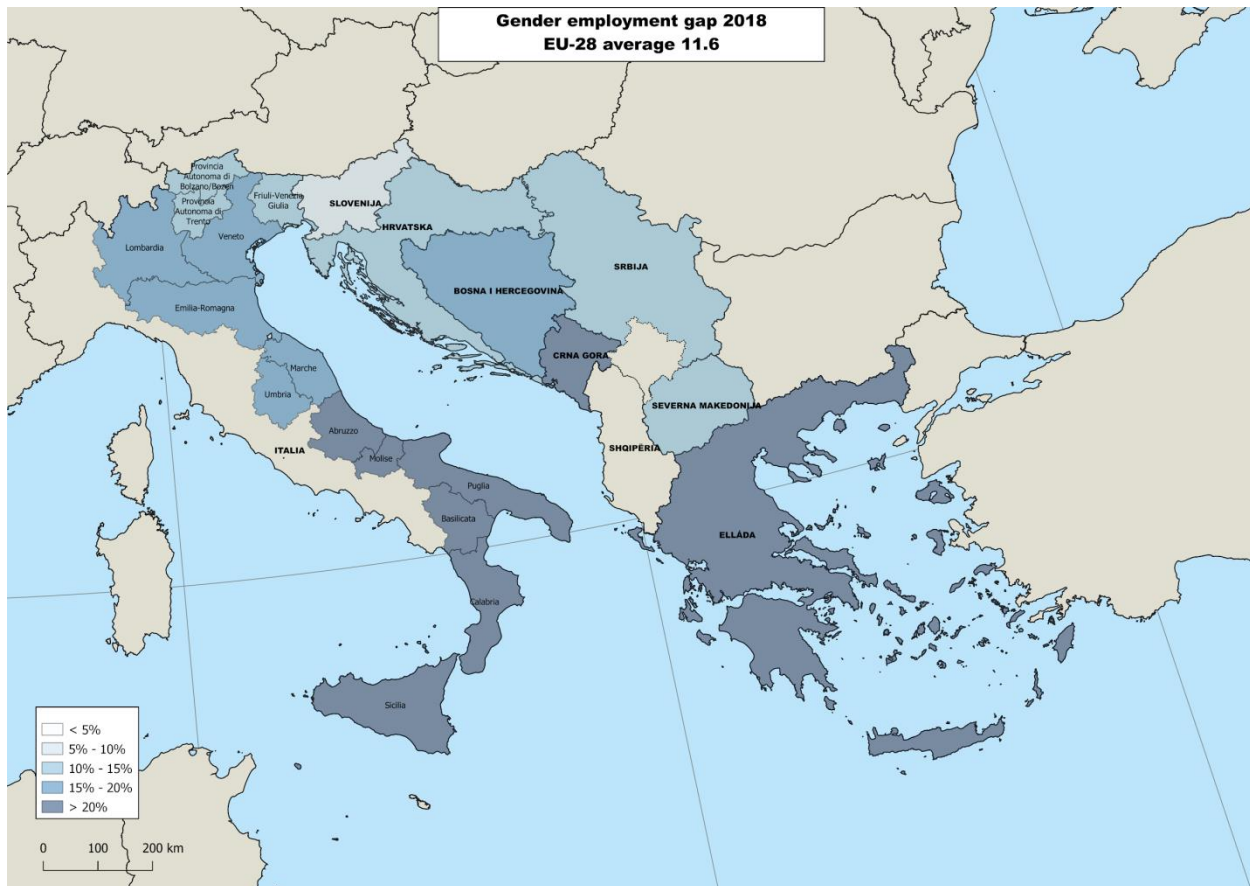
Map 19. Percentages of men in tertiary education

Source: Eurostat and the Agency for Statistics of BiH, own elaboration

Although the level of education suggests the opposite, the gender employment gap<sup>60</sup> remains an important issue in the region.

Slovenia and Croatia were the only countries performing above the EU average in 2018. The situation is defined as critical for Italy and Greece (European Commission 2019j). As for Bosnia and Herzegovina, the employment rate stands at 44.1% for men, while for women it is at 25% (Agency for Statistics of Bosnia and Herzegovina 2020), which brings the employment gap at 19.1%. Looking at the Italian regions, the data provided by ISTAT allow us to make a comparison between the employment rate of women and men. The worst performing region is Puglia with a gender employment gap of 28.1%, while the best performer in the country is Provincia di Bolzano (11.9%).

<sup>60</sup> The gender employment gap records the difference between the employment rates of men and women aged 20 to 64.



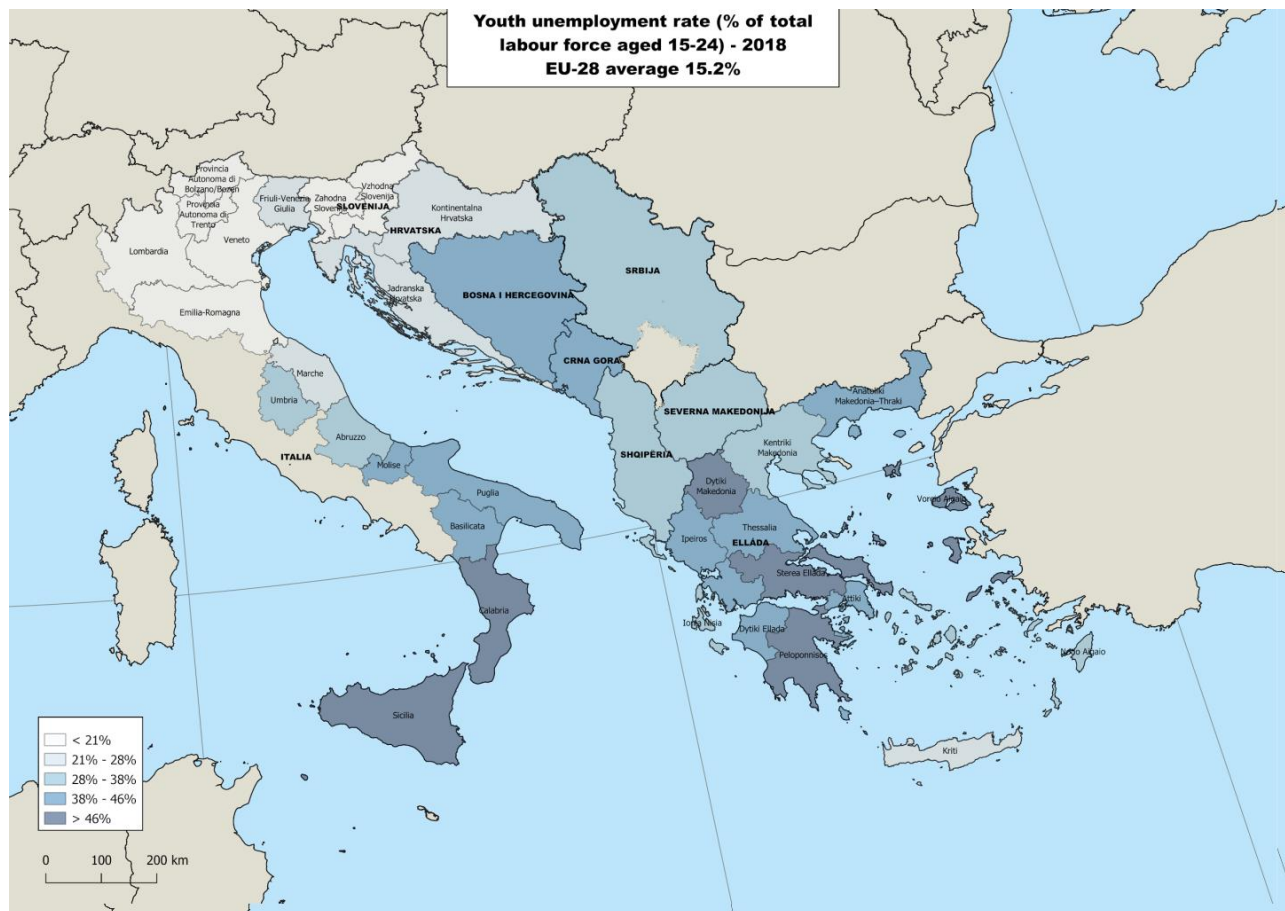
Map 20. Gender employment gap

Source: Eurostat, Istat and the Agency for Statistics of BiH, own elaboration

#### 1.4.6. DYNAMIC LABOUR MARKETS AND FAIR WORKING CONDITIONS

The unemployment rate in the EU is back to its pre-crisis level. According to the Joint Employment Report 2019, no country scores critical on this indicator. Croatia and Greece are marked “weak but improving”, while Italy is considered “to watch”. However, youth unemployment remains high in some Member States, notably in Italy and Greece. Youth unemployment has negative consequences for social cohesion, but also for the individuals concerned, as it leads to the depreciation of skills and a higher risk of poverty. The dynamic of youth unemployment is mirrored in the trend of the educational attainment of youth. Low-achievers in basic skills are more at risk of unemployment and social exclusion. Moreover, young people are more often employed under precarious types of contracts. In 2017, more than 7 out of 10 young workers were employed under a temporary contract in Slovenia (European Commission 2019j). Youth employment is therefore one of the EU policy priorities, addressed with the European Social Fund and the Youth Employment Initiative.

Youth unemployment rate shows a very diversified situation in the ADRION region. With 8.8%, Slovenia is the only country performing better than the EU average of 15.2% in 2018. It is followed by Croatia (23.7%) and Albania (28.3%). Two Italian regions, Calabria and Sicilia, perform worse than North Macedonia, which is the worst performer as a whole country.



Map 21. Youth unemployment rate

Source: Eurostat, World Bank and Instat, own elaboration

#### 1.4.7. SOCIAL PROTECTION AND INCLUSION

The level of government expenditure in social protection has already been analysed in the first paragraph of this section.

An interesting indicator that should be considered in the evaluation of the inclusion is the individuals' level of digital skills, that provides information about the share of population with basic overall digital skills. Digital skills cover four types of competences: information, communication, problem solving and software skills (Eurostat 2019d). According to Eurostat data, the EU average of individuals with basic or above basic digital skills stands at 58% in 2019. Slovenia (55%), Croatia (53%) and Greece (51%) are the best performing countries in the ADRION region, followed by Serbia (46%), Italy (42%), North Macedonia (32%) and Bosnia and Herzegovina (24%). There is no available data for Albania and Montenegro.

## 1.5. Policy objective 5 A Europe closer to citizens

The fifth Policy Objective foreseen by the CPR, though very wide in its meaning, is intended to host actions (i) fostering the integrated social, economic and environmental development, cultural heritage and security in urban areas and (ii) fostering the integrated social, economic and environmental local development, cultural heritage and security, including for rural and coastal areas also through community-led local development. Further than that, it is recommended that future actions might be based on integrated territorial and local development strategies (CLLD, ITI), although those approaches proved to be quite difficult to introduce in the Interreg programmes due to the long time needed to identify, consolidate and grow a community-led initiative and very few cases are known.

On the other hand, this set-up is favourable to support measures fostering the valorisation of local resources, which the ADRION programme is very rich in.

The countries of the ADRION region have in common natural and cultural resources that are important for the development of the region. To ensure their protection together with their economic exploitation it is important that local, regional, national and European stakeholders learn to work together to implement common policies.

ADRION comprises areas of mass tourism (Venezia, Dubrovnik) and big cities (Athina, Beograd, Milano) but also isolated mountain areas. The challenge is that of creating a context that favours sustainable and integrated development of urban, rural and coastal areas and the flourishing of local initiatives. Diversification and environmental sustainability of tourism are the two main challenges.

### 1.5.1. TOURISM

The ADRION region can boast a wide range of coastal resorts and natural, architectural and cultural heritage that provide employment and source of income for a considerable section of the population. In some ADRION countries, the share of persons employed in total tourism industries is significantly higher than the EU average. According to the 2016 Eurostat data, Greece recorded the highest share in the EU (23.9%) of employed in total tourism industries as share of employed in total non-financial business economy. Croatia (12.2%) and Italy (10.3%) were also above the EU-28 average (9.4%), while Slovenia (6.7%) and, among the potential candidates, Bosnia and Herzegovina (8.1%) stood below the average.<sup>61</sup> Even so, tourism provides several challenges which have to be addressed: territorial and socioeconomic disparities; impact on environment and biodiversity; seasonality; dependency on international trends, accessibility.

Tourism arrivals are constantly growing in all the ADRION countries. Regions with a traditionally strong position in the tourist sector, such as the coastal and Alpine regions in Italy, Greece, Croatia, Slovenia and Montenegro, witness stable increases of tourist overnight stays and display heightening rates of tourism intensity and density.

On the other side, inland Balkan countries where tourism constitutes an emerging economic sector (Bosnia and Herzegovina, North Macedonia, Serbia) experience a more rapid and intense growth in overnight stays, but still show small absolute figures and their rates of tourism intensity and density remain significantly low.

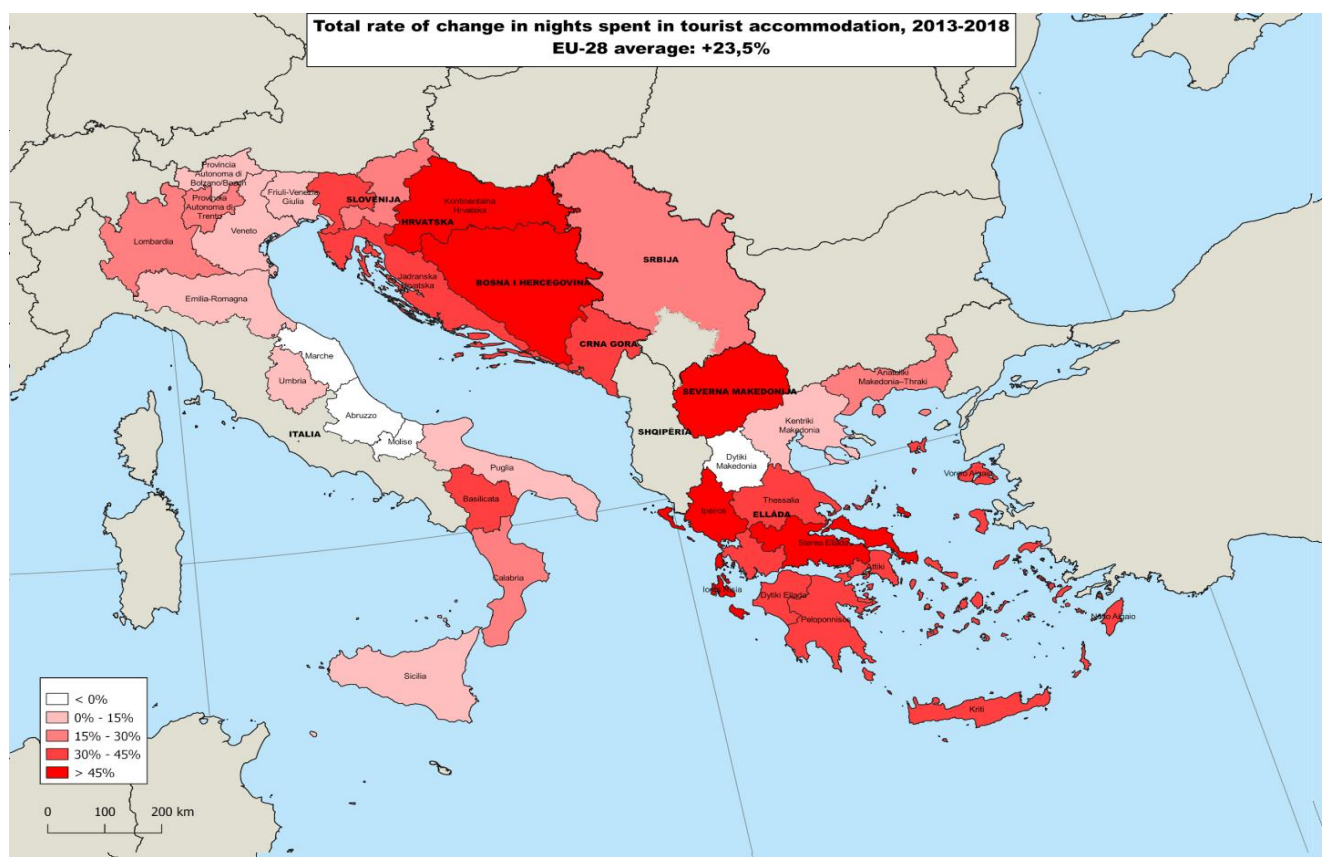
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<sup>61</sup> Eurostat, [https://ec.europa.eu/eurostat/statistics-explained/index.php/Tourism\\_industries\\_-\\_employment#Data\\_sources](https://ec.europa.eu/eurostat/statistics-explained/index.php/Tourism_industries_-_employment#Data_sources)

There is still a significant difference in tourism **infrastructure** between EU-member states on the one hand, with developed and solid infrastructure, and candidate and potential candidate countries on the other side (with the exception of Montenegro, which falls in the former group), which may present a shortage of accommodation infrastructure and inadequate promotion of tourist destinations (Routes4U 2018).

According to Eurostat data on **overnight total stays** in tourist accommodation in 2018, 2 out of the 10 most performing NUTS-2 EU regions (Jadranska Hrvatska, with 84.8 million of overnight stays. and Veneto with 69.2) and 7 out of the first 25 European regions (with in addition Emilia-Romagna, Lombardia, Provincia autonoma di Bolzano, Notio Aigaio, and Kriti, which range between 30 and 40 million each) are located in the ADRION area.

Considering the variation in overnight stays from 2013 to 2018, a significant majority of ADRION regions has risen more than the EU-28 average (+23.5% of total nights, which means an average increase of roughly 5% each year). The regions with higher tourism intensity in the Eastern Adriatic and Ionian-Aegean coast, despite their long-standing popularity, still experience growths which are significantly higher than the EU-average: this is the case of Kriti and the Aegean and Ionian Islands in Greece, Jadranska Hrvatska, and Montenegro, where growth stands between 37 and 45% as visualized in the map.



Map 22. Rates of change of nights spent by tourists

Source: original elaboration from Eurostat and national data <sup>62</sup>

<sup>62</sup> Eurostat, 2013-2018 data

[https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour\\_occ\\_nin2&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour_occ_nin2&lang=en); Statistical pocketbook of the Republic of Serbia, 2013-2017 data <https://publikacije.stat.gov.rs/G2019/PdfE/G201917012.pdf>; Agencija za Statistiku Bosne i Hercegovine, Statistika Turizma, 2013-2017 data

[http://www.bhas.ba/saopstenja/2018/TUR\\_02\\_2017\\_12\\_0\\_BS.pdf](http://www.bhas.ba/saopstenja/2018/TUR_02_2017_12_0_BS.pdf); Crna Gora - Uprava za statistiku, Istraživanje o dolascima i noćenjima turista 2013-2018,

The areas experiencing higher rises are Ipeiros (+86.5%) and Sterea Ellada (+58.4%) in Greece, Kontinentalna Hrvatska (+79.3%), North Macedonia (+47.5%) and Bosnia and Herzegovina (+46.9%, data 2013-2017). Rises above the EU-average are also shown in Slovenia (31.6%) and Serbia (26.8%, data 2013-2017). This leads to the observation that the inland Western Balkan and North Adriatic areas are experiencing considerable growth and show significant potential for further development.

The rise in attractiveness, visibility and capacity of the local emerging sector to absorb the demand in inland territories seems confirmed by the highly positive trend in foreign tourism in Kontinentalna Hrvatska (+95.9% of overnight stays between 2013 and 2018), Bosnia and Herzegovina (+72.6%, data 2013-2017), North Macedonia (71.7%), Serbia (59.7%, data 2013-2017), and Slovenia (44%).

The ADRION regions in the Eastern Adriatic and Ionian-Aegean Coast, as well as some Alpine regions, are areas of particularly high **tourism intensity** (overnights stays in relation to the resident population)<sup>63</sup> and tourism density (relationship between the total number of nights spent and the total area of a region). These indicators are usually considered to assess the impact of tourism for a region, displaying its importance for the local economy, but also its pressure on environmental sustainability.

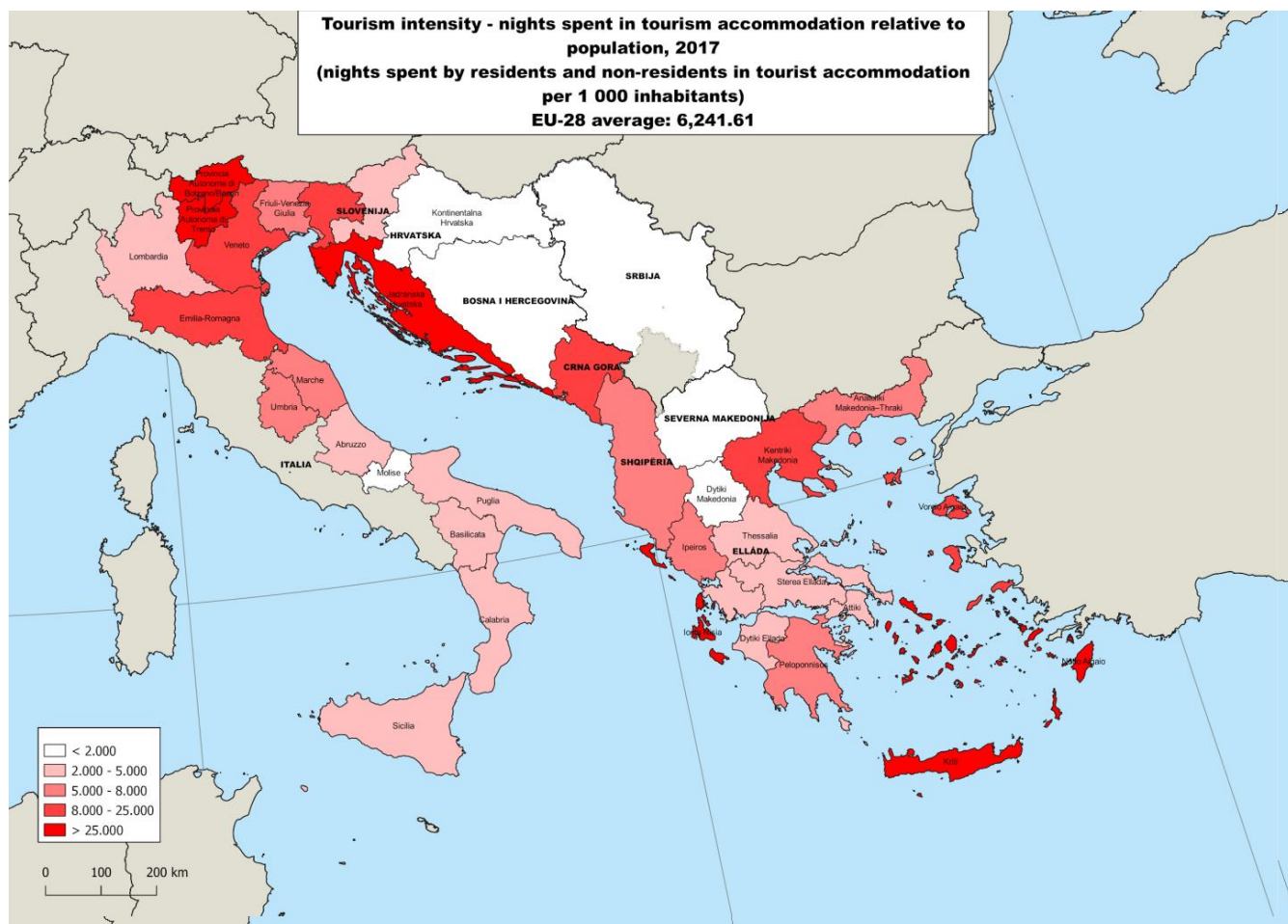
According to Eurostat data 2017, 4 of the 5 regions with the highest tourism intensity in the overall EU are in the ADRION area: Notio Aigaio (77,691 nights spent for 1,000 inhabitants, in other words about 77 nights for every inhabitant, which is more than twelve times the EU-28 average), Ionia Nisia (66,843), Provincia di Bolzano (61,803), and Jadranska Hrvatska (59,004). In addition, Kriti (42,659), Provincia di Trento (33,003), Montenegro (18,080) and Veneto (14,097) also show high figures of tourism intensity, well above the EU-28 average (6,241). On the other side, inland regions in Western Balkans and Northern Adriatic, despite their relative growth in overall stays, still show intensity rates well below the EU average. This is the case of Bosnia and Herzegovina (758.1), North Macedonia (952.1), Serbia (1,060.22), and Kontinentalna Hrvatska (1,530.27).

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<https://www.monstat.org/userfiles/file/turizam/din2018/ukupno2018/Istra%C5%BEivvanje%20o%20dolascima%20i%20no%C4%87enjima%20turista%20ukupno%20-%202018.pdf>

<sup>63</sup> According to the Eurostat definition, tourism intensity is calculated as the total number of nights spent in tourist accommodation per 1 000 inhabitants. ([https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tourism\\_statistics\\_at\\_regional\\_level#Number\\_of\\_overnight\\_stays](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tourism_statistics_at_regional_level#Number_of_overnight_stays))



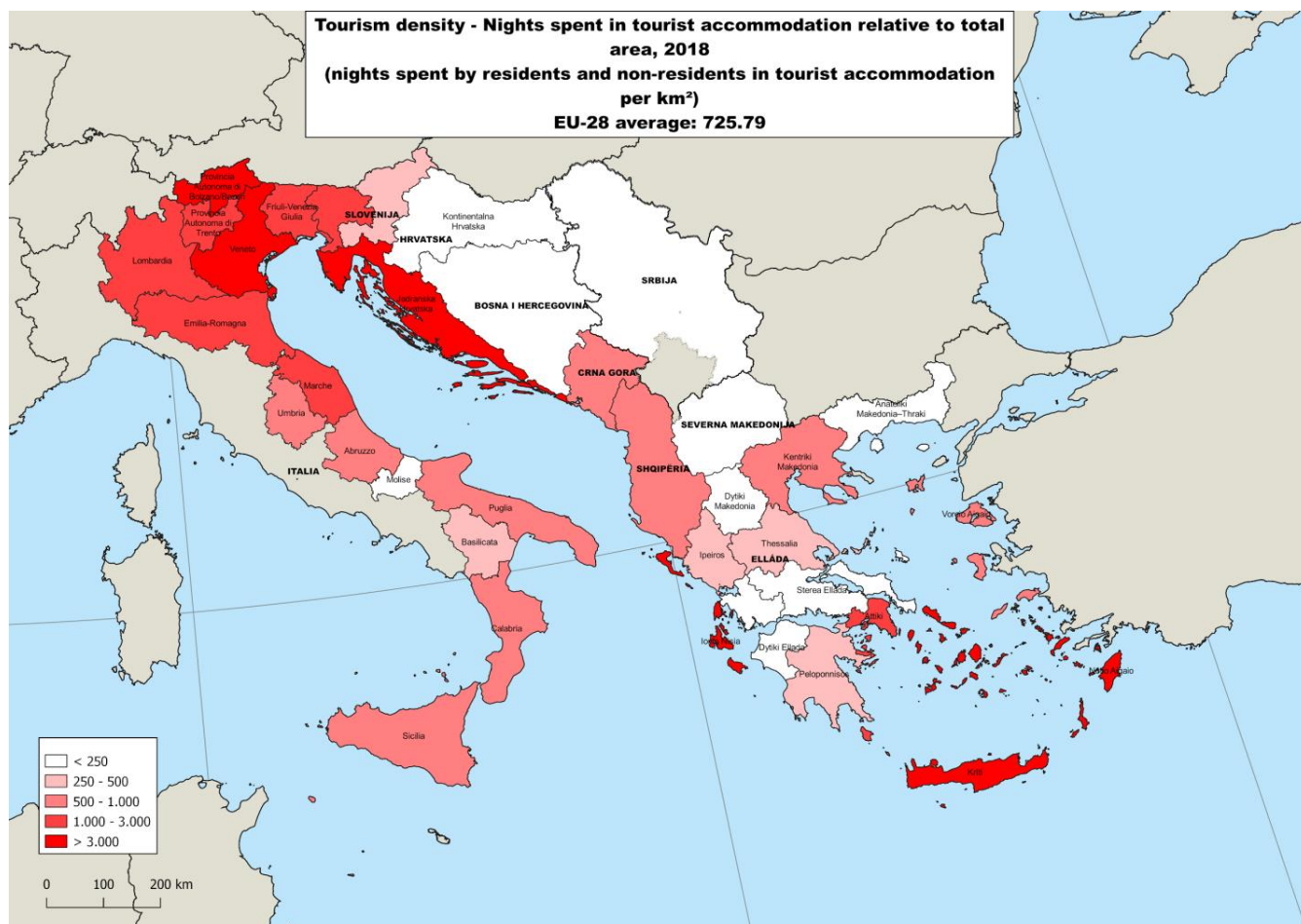


Map 23. Nights spent in tourism accommodation in relation to population

Source: original elaboration from Eurostat and national data<sup>64</sup>

As for the tourism density, rates are particularly high in coastal, coastal-urban (Ionia Nisia, Notio Aigaiio, Kriti, Jadranska Hrvatska, Veneto) and Alpine regions (Trento, Bolzano), and moderately high in regions with urban tourism or mixed types of tourism (Attiki, Lombardia, Emilia-Romagna). Tourism density is (very) low in Western Balkans and Northern Adriatic inland regions, also in those regions with an emerging sector predominantly based on urban and cultural-natural tourism (Serbia, Bosnia and Herzegovina, Kontinentalna Hrvatska, North Macedonia).

<sup>64</sup> Eurostat, 2017 data ([https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour\\_occ\\_nin2&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour_occ_nin2&lang=en)); Statistical pocketbook of the Republic of Serbia <https://publikacije.stat.gov.rs/G2019/PdfE/G201917012.pdf>; Agencija za Statistiku Bosne i Hercegovine, Statistika Turizma [http://www.bhas.ba/saopstenja/2018/TUR\\_02\\_2017\\_12\\_0\\_BS.pdf](http://www.bhas.ba/saopstenja/2018/TUR_02_2017_12_0_BS.pdf); Crna Gora - Uprava za statistiku, Istraživanje o dolascima i noćenjima turista, <https://www.monstat.org/userfiles/file/turizam/din2018/ukupno2018/Istra%C5%BEivanje%20o%20dolascima%20i%20no%C4%87enjima%20turista%20ukupno%20-%202018.pdf>; INSTAT Albania, Tourism in figures (<http://www.instat.gov.al/media/4609/tourism-in-figures-2018.pdf>)



Map 24. Nights spent in tourism accommodation in relation to country area

Source: original elaboration from Eurostat and national data<sup>65</sup>

In conclusion, these indicators show that coastal areas of Croatia, the Greek islands, Montenegro, Albania, and the Alpine regions (except Slovenia) are experiencing increasing tourism pressure. Environmental sustainability, upgrading infrastructure quality and innovation, diversification of the offer, focusing on cultural-natural heritage would be recommended. On the other side, cultural-natural and urban assets in the inland regions in Western Balkans and Northern Adriatic show low rates in density and intensity, which is a potential in itself to raise attractiveness and promotion, and to stimulate a better integration between coastal and inland areas.

### 1.5.2. CULTURAL HERITAGE

Cultural heritage is a resource with a strategic value for a country's social and economic development, which provides an opportunity to local communities as a bearer of tourist attraction, economic development and social cohesion. Following the UNESCO's definition, cultural heritage encompasses several categories of

<sup>65</sup> Eurostat, 2018 data ([https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour\\_occ\\_nin2&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour_occ_nin2&lang=en));

Statistical pocketbook of the Republic of Serbia, 2017 data

<https://publikacije.stat.gov.rs/G2019/PdfE/G201917012.pdf>; Agencija za Statistiku Bosne i Hercegovine, Statistika

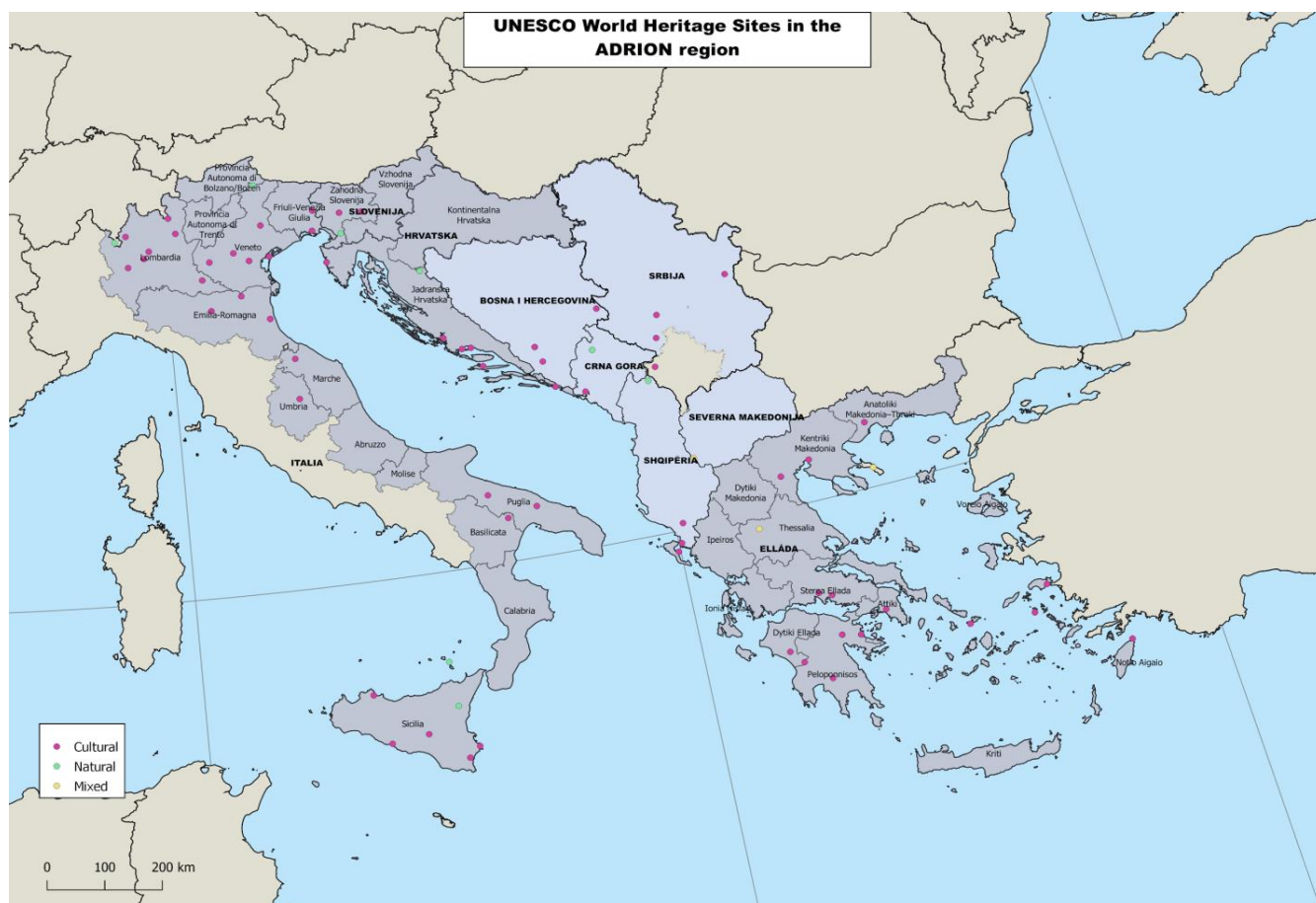
Turizma, 2017 data [http://www.bhas.ba/saopstenja/2018/TUR\\_02\\_2017\\_12\\_0\\_BS.pdf](http://www.bhas.ba/saopstenja/2018/TUR_02_2017_12_0_BS.pdf); Crna Gora - Uprava za statistiku, Istraživanje o dolascima i noćenjima turista,

<https://www.monstat.org/userfiles/file/turizam/din2018/ukupno2018/Istra%C5%BEivanje%20o%20dolascima%20i%20ono%C4%87enjima%20turista%20ukupno%20-%202018.pdf>; INSTAT Albania, Tourism in figures

(<http://www.instat.gov.al/media/4609/tourism-in-figures-2018.pdf>)

heritage: tangible cultural heritage (paintings, sculptures, artefacts, monuments, archaeological sites, etc.); intangible cultural heritage (oral traditions, performing arts, rituals), and natural heritage (natural sites with cultural aspects such as landscapes, physical or geological formations) (UNESCO 2017).

The ADRION region relies on an extraordinary cultural and natural heritage, owing to a rich variety of traditions, languages and civilisations legacies. In the region there are 72 cultural and natural properties belonging to the UNESCO World Heritage List (64 cultural and mixed cultural-natural properties, and 8 natural properties), which represent about 15% of the whole European continent. ADRION also hosts 44 elements which are inscribed in the UNESCO list of Intangible Heritage of Humanity.



Map 25. UNESCO World heritage sites

Country	World Heritage List Cultural and mixed (cultural-natural) properties	World Heritage List Natural properties	Representative List of Intangible Cultural Heritage of Humanity
Albania	3	1	1
Bosnia and Herzegovina	3	-	3
Greece	18	-	8
Croatia	8	2	17

Italy (only ADRION regions)	31	5	10
Montenegro	3	1	-
North Macedonia	1	-	5
Serbia	4	-	3
Slovenia	2	2	4
<b>ADRION<sup>66</sup></b>	<b>64</b>	<b>8</b>	<b>44</b>

Table 4. List of Unesco properties in the World Heritage List and elements of intangible cultural heritage within the ADRION area

Sources: own elaboration from the Unesco World Heritage List (<https://whc.unesco.org/en/list/>) and the Unesco Intangible Cultural Heritage List (<https://ich.unesco.org/en/lists>)

The UNESCO sites represent an exceptional heritage of architectural features, multicultural urban settlements, religious monuments, archaeological remains, natural landscapes and biodiversity. However, their material condition, accessibility, visibility and presentation to the public, and legal-administrative aspects for the protections and management, differ widely among the countries.

In most cases, the UNESCO sites do not face any particular threat of integrity. Therefore, the efforts in these sites should be devoted to raising attractiveness through various actions: improving visibility, promoting digitalisation, fostering local expertise, developing sustainable methods of exploitations, building transnational networks. In some other cases, factors such as visitor pressure, physical deterioration or environmental impacts have been the cause of concerns, which have even led to question the UNESCO status itself.

In 2019, a UNESCO report presented 19 recommendations to North Macedonia and Albania about the current situation in the Ohrid region site, which hosts one of the oldest human settlements in Europe and a lake representing a superlative natural phenomenon. The report addressed issues of uncoordinated or illegal urban development, inadequate treatment of wastewater and solid waste, pressure from mass tourism and from major infrastructure projects (Cvetanoski 2019; UNESCO 202019).

In recent years, concerns about tourism pressure and pollution have been raised particularly in the case of the Old City of Dubrovnik in Croatia, which have become commonly associated with the concept of “over tourism” in academic, media and societal debates. The growing number of cruise ships docking at the port has intensified the tourism pressure on the local community and environment and overwhelmed the carrying capacity of the city, as UNESCO has repeatedly warned (Marusic 2017). Since 2016, the Plitvice Lakes National Park in Croatia, the lack of regulation in tourism visits’ numbers, combined with the uncontrolled extensive construction, has also been the object of warning UNESCO reports (UNESCO 2017). As for the Natural and Historic-cultural region of Kotor in Montenegro, UNESCO identified issues of urbanisation and transformation of the coastline.<sup>67</sup>

The region hosts 5 transboundary properties of cultural and natural heritage, and 3 multinational elements of intangible cultural heritage which are shared by more than one ADRION country. (see table below).

<sup>66</sup> Because of the several transboundary properties (see table below), the overall ADRION numbers do not correspond to the sum of the single states' properties

<sup>67</sup> Full reports: UNESCO Natural and Culturo-Historical Region of Kotor  
<http://whc.unesco.org/en/list/125/documents/>

World Heritage List Property	ADRION Countries	Type
Natural and Cultural Heritage of the Ohrid region	Albania, North Macedonia	Mixed
Prehistoric Pile dwellings around the Alps	Italy (Lombardia, Veneto, Friuli Venezia Giulia, prov. Trento), Slovenia  (+ Germany, France, Austria, Switzerland)	Cultural
Stećci Medieval Tombstone Graveyards	Bosnia and Herzegovina, Croatia, Montenegro, Serbia	Cultural
Venetian Works of Defence between the 16th and 17th Centuries: <i>Stato da Terra</i> – Western <i>Stato da Mar</i>	Croatia, Italy (Lombardia, Veneto, Friuli Venezia Giulia), Montenegro	Cultural
Ancient and Primeval Beech Forests of the Carpathians and Other Regions of Europe	Albania, Croatia, Italy (Abruzzo, Basilicata, Calabria, Puglia, Emilia Romagna), Slovenia  (+ Austria, Belgium, Bulgaria, Germany, Romania, Slovakia, Spain, Ukraine)	Natural

Table 5. World Heritage List transboundary properties which involve two or more ADRION countries

Source: own elaboration from the UNESCO World Heritage List: <https://whc.unesco.org/en/list/>

Intangible element	ADRION Countries
Mediterranean diet	Croatia, Greece, Italy (+Cyprus, Spain, Morocco, Portugal)
Art of dry-stone walling, knowledge and techniques	Croatia, Greece, Italy, Slovenia (+ Cyprus, France, Spain, Switzerland)
Transhumance	Greece, Italy (+ Austria)

Table 6. Multinational elements of Intangible Cultural Heritage and Register of good safeguarding practices involving two or more ADRION countries

Source: own elaboration from the UNESCO Intangible Cultural Heritage list : <https://ich.unesco.org/en>

Transnational elements require a consistent effort in joint management, harmonization of conservation and protection standards, and coordination of marketing and communication objectives. At the same time, they provide possible models and opportunities for heritage sites of all types in order to build networks with ADRION stakeholders and to enhance the transnational dimension of their offer.

This aspect is relevant, considering what the EU Commission's Orientation Paper (2020) recalls: the strategies and actions related to tourism and cultural heritage in the ADRION region are often limited to a local or state-wide level, lacking the transnational element and not looking at the potential of the whole ADRION area as a unique tourist region.

### 1.5.3. CULTURAL ROUTES AND SUSTAINABLE TOURISM

The Cultural Routes Programme was launched by the Council of Europe in 1987 in order to safeguard the common heritage of CoE members and to facilitate their economic and social progress. Cultural routes are transnational networks across borders of at least three countries, aiming to promote European values and common identity. They are living landscapes involving inhabitants and people travelling along the route, which combine tangible and intangible heritage, as they safeguard both the sites and the expressions of traditions, arts and traditional knowledge. This provides an important model for slow and sustainable tourism, encouraging relationships with local culture and contributing to reduction of seasonality (Routes4U 2018: 10-33).

As of 2019, out of the overall 38 Cultural Routes certified by the Council of Europe, 29 are located in the ADRION region. Most routes cross Italy (27), while 13 are located in Croatia, 9 in Greece, 8 in Slovenia, 7 in Serbia, 2 in Albania, Bosnia and Herzegovina and North Macedonia, and 1 in Montenegro. 12 routes have exclusively network members in Italy, while 17 are situated in at least two countries of the ADRION region, as listed in the table.

Cultural route	ADRION Countries involved
Atrium	Albania, Croatia, Italy
Destination Napoleon	Croatia, Italy, Greece
European Cemeteries Route	Bosnia and Herzegovina, Croatia, Greece, Italy, Serbia, Slovenia
European Mozart Ways	Greece, Italy
European Route of Jewish Heritage	Bosnia and Herzegovina, Croatia, Italy, Serbia
European Route of Historical Thermal Towns	Croatia, Greece, Italy
European Route of Industrial Heritage	Croatia, Greece, Italy, Serbia
Impressionisms Routes	Croatia, Italy, Slovenia
Iron Curtain Trail	Croatia, Greece, North Macedonia, Serbia, Slovenia
Iter Vitis Route	Croatia, Greece, Italy, Montenegro, North Macedonia
Phoenicians' Route	Croatia, Greece, Italy
Reseau Art Nouveau Network	Italy, Serbia, Slovenia

Roman Emperors and Danube Wine Route	Croatia, Serbia
Routes of Reformation	Italy, Slovenia
Routes of the Olive Tree	Albania, Croatia, Greece, Italy, Slovenia
Saint Martin of Tours Route	Croatia, Italy, Slovenia
Transromanica	Italy, Serbia

Table 7. Cultural Routes CoE with network members from two or more ADRION countries

Source: own elaboration from the CoE Cultural Routes database (<https://www.coe.int/en/web/cultural-routes/about>); Roadmap, p. 25.

The geographical distribution reflects discrepancies in the ADRION Region, as the routes are mostly concentrated in countries with higher socio-economic and tourism development. Moreover, currently there is no cultural route with a specific focus or theme involving the ADRION region as a whole. The creation of a route aimed at promoting an Adriatic-Ionian profile and would include the countries which are under-represented in the existing cultural routes, can contribute to a sustainable tourism offer and, more broadly, to regional cohesion and to economic development. The transnational structure of cultural routes offers a strong potential for joint activities, exchange of capacities and knowledge between the ADRION countries.<sup>68</sup>

Besides the CoE Cultural Routes, there are two routes which are worth to be recalled here as they go across ADRION countries with an explicit macroregional vocation and have been supported by EU and multilateral projects, offering a platform for economic growth and environmental sustainability. One is the Via Dinarica, a hiking trail across the Dinaric mountains in the Western Balkans, spanning nearly 2,000 kilometers and seven ADRION countries (Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Serbia, North Macedonia) by spotlighting the region's common thread – its landscape – as well as its diverse culture. Via Dinarica, which is similar to the Via Alpina model in the EU, aims to make connections between cities and inland rural communities in the region, highlighting the traditional lifestyles and cuisine, besides sport and environment-related activities.<sup>69</sup>

The other route is the Via Egnatia, also an hiking trail along the ancient Roman and Ottoman road from Durrës on the Adriatic coast through Albania, North Macedonia, Greece and ending at Istanbul, spanning about 1,000 km. The route offers rich cultural, natural and archeological resources, connecting rural, rarely visited and marginalized areas with famous and interconnected highlights like Ohrid, ancient Pella and Thessaloniki.<sup>70</sup> Via Egnatia bears an enormous potential for sustainable tourism, valorisation of heritage and involvement of local communities, reminding of models such as the Camino de Santiago in Spain or the Via Francigena in France and Italy. Still, Via Egnatia lacks adequate coordination of public and civil society stakeholders from the different countries and regions in management, infrastructure - especially path markers and accommodation system - and promotion.

#### 1.5.4. FOOD- AND AGRICULTURE-RELATED TOURISM

All the ADRION countries are home to unique food traditions and seek to increase or consolidate their own position as centres of sustainable gastronomic tourism, while the core of this promotional activities are managed by the Local Action Groups and the Producers Association established and funded by the Common

<sup>68</sup> Roadmap, 24.

<sup>69</sup> Website of the Via Dinarica alliance: <https://viadinarica.com/>

<sup>70</sup> The Via Egnatia Foundation (<https://www.viaegnatiafoundation.eu/>) and FuoriVia (<http://www.fuorivia.org/en/>) are actively involved in restoring and promoting the ancient Via Egnatia.

Agricultural Policy, the region has been experiencing the active presence of several grassroots organisations aiming at (re)discovering, promoting and preserving local food culture.

The economy boosted by food-related initiatives and peculiarities are increasing in dimension and they are typically directed related with local sustainable development, being scattered in the rural and internal areas. Many initiatives such as the "wine routes" and the "oil routes" proved to be a real accelerator of internal territories often left behind by the mainstream tourism development. The basis of these actions is closely related to the EU policy in defence and promotion of local productions: Protected Designation of Origin (PDO), Protected Geographical Indication (PGI), and Traditional Specialities Guaranteed (TSG).

#### 1.5.5. CULTURAL AND CREATIVE INDUSTRIES

The cultural and creative industries (CCIs) can be defined as those which produce and distribute cultural goods, services or activities with cultural content that convey ideas, symbols and ways of life; this applies to cultural or artistic expressions communicated through words (literature), sound (music, radio), images (photos, TV, films), movement (dance, theatre) or objects (sculpture, painting, design) and in any format (live, print, audio-visual, digital) (UNESCO 2005).

CCIs are generally acknowledged as a centre for specific economic development and interest, and a booming sector where investments are flowing. However, the relative weight of the cultural sector on the economy remains under the EU average in most ADRION countries. According to the Eurostat 2018 data, when it comes to cultural employment, only Slovenia and Montenegro (respectively 4.7 and 4.0% of the share of total employment) recorded higher rates than the EU-28 average (3.8%). All the measured countries except Italy showed a decline in the relative share of cultural employment between 2013 and 2018, although in absolute terms they generally experienced some moderate growth. A similar trend can be seen regarding cultural enterprises: all the measured ADRION countries show indicators standing below the EU-28 average, in terms of number of enterprises (with the only exception of Slovenia) and in terms of share of value added in non-financial business economy.



Country	N. employed (1,000 persons) 2013 - 2018		Share of total employment (%) 2013 - 2018	
	Croatia	52	54	3.4
Greece	122	125	3.5	3.3
Italy	784	831	3.5	3.6
Montenegro	9	10	4.6	4.0
North Macedonia	23	23	3.4	3.1
Serbia	82	86	3.6	3.0
Slovenia	45	47	5.0	4.7
<b>EU-28 total/average</b>	<b>8,097</b>	<b>8,736</b>	<b>3.8</b>	<b>3.8</b>

Table 8. Cultural employment, 2013 and 2018<sup>71</sup>

	Number of cultural enterprises		Value added at factor cost	
	Total number	% share of total in non-financial business economy	Million EUR	% share of total in non-financial business economy
Bosnia and Herzegovina	2,157	3.2	156	2.1
Croatia	6,589	4.5	546	2.5
Greece	32,632	4.1	931	2.1
Italy	178,907	4.8	16,261	2.3
North Macedonia	2,056	3.8	86	2.3
Slovenia	9,030	6.5	409	2.0
<b>EU-28 total/average</b>	<b>1,231,553</b>	<b>5.0</b>	<b>192,472</b>	<b>2.7</b>

Table 9. Main indicators for cultural enterprises and their share within the nonfinancial business economy, 2016<sup>72</sup>

In the ADRION region, there are 10 cities members of the UNESCO Creative Cities Network (UCCN). This network includes 246 cities in the world that have identified creativity as a strategic factor for sustainable urban development and commit themselves to sharing their best practices and developing partnerships.<sup>73</sup>

<sup>71</sup> Eurostat, *Culture statistics – 2019 edition*, p. 65. Data from Bosnia and Herzegovina and Albania are not available. <https://ec.europa.eu/eurostat/documents/3217494/10177894/KS-01-19-712-EN-N.pdf/915f828b-daae-1cca-ba54-a87e90d6b68b>

<sup>72</sup> Eurostat, *Culture statistics – 2019 edition*, p. 84. Data from Serbia, Albania and Montenegro not available. Data on North Macedonia: 2015.

<sup>73</sup> UNESCO Creative Cities Network webpage: <https://en.unesco.org/creative-cities/>

This may provide a base for building hubs of creativity and innovation, opening opportunities to professionals in the cultural sector, and connecting big and capital cities that have well-established excellences with small-medium centres that show emerging delight and ambition.

Some creative fields are recurring across the different ADRION countries: film, music, and literature. **Film** is shared by Sarajevo (Bosnia and Herzegovina) and Bitola (North Macedonia). The Sarajevo Film Festival is widely recognized as the leading cinema event in Southeastern Europe. While setting high-quality standards and attaining worldwide prestige among audiovisual professionals and the wider public, the Festival is a major source of visitors' attraction for Sarajevo and the whole region, promoting their peculiar historical heritage and multiculturalism. Bitola, where the history of cinema in the Balkan region originated in the early XX century, aims now to re-emerge as an international centre of movie industry and creative events.

In the **music** field, Vranje (Serbia) is the place of traditional song which deeply reflects the multicultural local environment, while Pesaro (Italy) hosts one of the oldest and most prestigious music schools in Italy and the region. As for **literature**, both Milano (Italy) and Ljubljana (Slovenia) are prolific centres of writers' and artists' expression, book publishing and literary events.

UNESCO Cities members	Creative Network	ADRION Region/Country	Creative field	Specific events, attractions, institutions
Sarajevo		Bosnia and Herzegovina	Film	Sarajevo Film Festival
Bergamo		Lombardia, Italy	Gastronomy	The Cheese Valleys
Milano		Lombardia, Italy	Literature	Publishing sector
Bologna		Emilia Romagna, Italy	Music	Music institutions
Parma		Emilia Romagna, Italy	Gastronomy	Italian Food Valley
Fabriano		Marche, Italy	Crafts and Folk Art	Handicraft sector
Pesaro		Marche, Italy	Music	Rossini Conservatory
Bitola		North Macedonia	Film	Film industry heritage
Vranje		Serbia	Music	Festival of Vranje Song
Ljubljana		Slovenia	Literature	Literary events

Table 10. List of members of UNESCO Creative Cities Network (UCCN) in the ADRION region

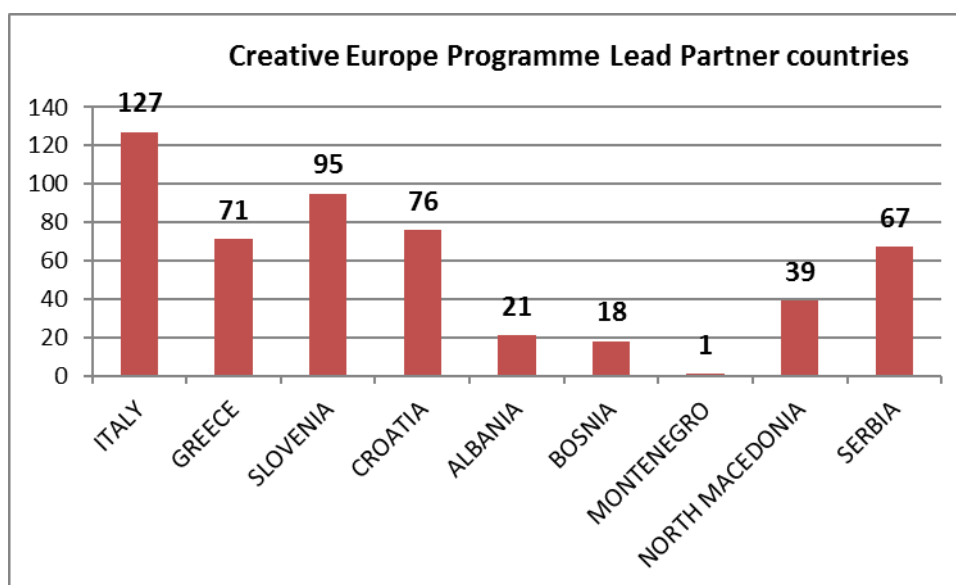
Source: ADRION places from the list of UNESCO Creative Cities: <https://en.unesco.org/creative-cities/creative-cities-map>

### 1.5.6. CREATIVE EUROPE PROGRAMME: CULTURAL POLICY

Cultural policy domain covers a wide range of topics: cultural heritage, artistic creations, and cultural and creative sectors including multimedia; it plays an economic role, but also is an identity and social cohesion factor. Having considered the possibility of merging the **Creative Europe programme** with other programmes supporting European values, rights and justice, the European Commission has decided to continue the Creative Europe programme as a stand-alone programme, increasing its budget by 17 %. In line with the document “A New European Agenda for Culture” of May 2018 Creative Europe Programme has three strategic objectives: social (active participation of citizens, mobility of the sector's professionals, awareness and valorisation of European identity), economic (promoting arts, culture and creative thinking, access to finance, fair revenues, necessary skills and their combination) and international (intercultural dialogue for peace and culture, boosting sustainable social and economic development).

This Programme presents important synergies with the 4th (Social Europe) and most of all with the 5th EU policy objective of new EU Cohesion Policy, a **Europe closer to citizens**, and focuses on the economic dimension of the cultural sector and its contribution to job creation and economic growth.

ADRION countries in the 2014-2020 period showed a good involvement of cultural organisations in the Creative Europe Programme. The table below summarizes the number of coordinating organisations of Creative Europe projects from both EU and IPA countries; Italy, Greece, Slovenia and Croatia present a balanced participation of beneficiaries in the role of coordinator (respectively 127, 71, 95 and 76); even the participation of IPA countries in this important role is outstanding, especially for Serbia (67), North Macedonia (39) and Albania (21).



Graph. 19. Number of lead partners based in the ADRION regions participating in the Creative Europe programme

The new Creative Europe 2021-2027 is the only programme focusing exclusively on cultural and creative activities and enterprises; it falls under the “Cohesion and values” heading of the 2021-2027 multiannual financial framework and is based on three objectives:

1. EU cooperation focusing on cultural diversity, cultural heritage, enhancing competitiveness of cultural and creative sectors, and reinforcing international cultural relations;
2. promotion of audio-visual sector's competitiveness;

### 3. cooperation and innovation, media literacy and social inclusion.

It keeps the previous three-strands structure:

- **culture:** cross-border circulation of works and creators, cultural participation and social inclusion, capacity for growth and job creation, European values and identity cultural awareness and creativity in education;
- **media:** prioritising the development of new talents, skills, innovation and cooperation in audio-visual sector, theatrical and online distribution, promotion of European works in Europe and beyond;
- **cross sectoral:** combining a culture and media approach (arts, technology, business) to content creation, access to it, its distribution and promotion, quality journalism, media pluralism and literacy, the role of culture for social inclusion.

## 2. Interreg - specific objective: supporting the governance

### 2.1. Multilevel governance

Within the EU regional policy, macro-regional strategies significantly gained importance over the latest years. Four macro-regional policies were identified throughout the European territory, covering large areas across national borders, while - at Mediterranean level - the *Union for the Mediterranean* is an even longer-standing (1995) political forum where an overall Mediterranean perspective is applied to development policies, including countries beyond the EU borders. The EU Strategy for the Baltic Sea Region (EUSBSR) was adopted in October 2009; the EU Strategy for the Danube Region (EUSDR) started its implementation in June 2011; the EU Strategy for the Adriatic-Ionian Region (EUSAIR) was endorsed by the European Commission in 2014; and the EU Strategy for Alpine Space Region (EUSALP) was endorsed by the Council of the European Union in 2015. Discussion about possible other future European macro-regional strategies are ongoing.

Macro regional strategies are not funding instruments, but an integrated framework (endorsed by the European Council), which may be supported by the European Structural and Investment Funds among others, to address common challenges faced by a defined geographical area relating to Member States and third countries located in the same geographical area which thereby benefit from strengthened cooperation contributing to achievement of economic, social and territorial cohesion. They rather seek to create synergies and coordination between existing policies, funding instruments and initiatives taking place across a given macro-region.

#### 2.1.1. EUSAIR

As concerns the ADRION programme area, following a general meeting of the stakeholders held in February 2014 in Athina, on June 17, 2014 the EU Commission officially approved the Action Plan accompanying the document "Communication from the Commission to the European Parliament, the Council, the European economic and social committee and the committee of the regions concerning the **European Union Strategy for the Adriatic and Ionian Region** (COM(2014) 357 final).

The document defines both the governance framework of the strategy and the pillars identified.

##### 2.1.1.1. EUSAIR: governance

###### *Governing Body's roles*

The **Governing Board (GB)** coordinates the work of the Thematic Steering Groups in charge of implementation through strategic guidance with respect to management and implementation of the EUSAIR and its Action Plan. To this end, representatives from the participating countries are duly empowered by their respective Governments.

North Macedonia participated as a guest at the 10th Governing Board meeting (November 2019), and it's been officially added into EUSAIR on April 3, 2020.

GB's functions should include (*in italics* the roles directly interacting with the definition of ADRION PO's and relative actions):

- Acting as interface between the operational/managerial level (Thematic Steering Groups) and the political/ministerial level
- Convening and preparing meetings at ministerial level, as appropriate

- Proposing possible revisions of the Strategy and/or the Action Plan
- Issuing strategic guidelines to the Thematic Steering Groups (TSGs) and ensuring linkages between them
- Issuing guidelines on information and publicity about the Strategy
- Reporting to the EU-27 High Level Group on macro-regional strategies
- Elaborating further, and reviewing as appropriate, on the six broad criteria, included in the Action Plan (AP), for selecting actions/projects as potential candidates for inclusion in the AP
- Providing a general template for Rules of Procedures governing the thematic Steering Groups
- Providing orientations and guidelines for the annual EUSAIR Forum (e.g. setting the Agenda)
- *Ensuring coordination with existing regional cooperation organisations, as appropriate*
- Developing a monitoring and evaluation framework

#### *Thematic Steering Groups' roles*

For the time being, the EUSAIR Communication identified four interdependent pillars of strategic importance: (1) Blue Growth – (2) Connecting the Region (transport and energy networks) – (3) Environmental quality and (4) Sustainable Tourism.

The identification of these pillars paved the way for setting up one thematic Steering Group per each of them.

TSGs' functions should include (*in italics* the roles directly interacting with the definition of ADRION PO's and relative actions):

- Developing specific criteria for selecting actions/projects within each pillar on the basis of the six broad criteria included in the Action Plan (AP) as further developed/complemented by the Governing Board, as appropriate.
- Identifying actions/projects to be included in the AP, ensuring that they comply with the pillars' objectives, including with regard to cross-cutting and horizontal aspects
- *Identifying relevant funding sources* for the actions/projects selected and facilitating and following up implementation of actions/projects, including monitoring and evaluation
- Ensuring linkages with the other thematic Steering Groups
- *Liaising with Managing Authorities/NIPACs* of EU programmes in EU and non-EU countries
- Liaising with: the relevant EU programmes managed directly by the Commission; the IFIs; the regional cooperation organisations, etc.
- Convening and preparing meetings of relevant line ministers
- Submitting to the GB policy proposals and recommendations re. revisions of the AP
- Reporting to the GB

#### 2.1.1.2. EUSAIR: four pillars

##### *Pillar 1: Blue Growth*

The specific objectives for this pillar are:

- To promote research, innovation and business opportunities in blue economy sectors, by facilitating the brain circulation between research and business communities and increasing their networking and clustering capacity.
- To adapt to sustainable seafood production and consumption, by developing common standards and approaches for strengthening these two sectors and providing a level playing field in the macro-region.
- To improve sea basin governance, by enhancing administrative and institutional capacities in the area of maritime governance and services.

To achieve the above-mentioned objectives, Pillar 1 will focus on three topics:

1. Topic 1 – Blue technologies
2. Topic 2 – Fisheries and aquaculture
3. Topic 3 – Maritime and marine governance and services

### *Pillar 2: Connecting the region*

The specific objectives for this pillar are:

- To strengthen maritime safety and security and develop a competitive regional intermodal port system.
- To develop reliable transport networks and intermodal connections with the hinterland, both for freight and passengers.
- To achieve a well-interconnected and well-functioning internal energy market supporting the three energy policy objectives of the EU – competitiveness, security of supply and sustainability.

To achieve the above-mentioned objectives, Pillar 2 will focus on three topics:

1. Topic 1 – Maritime transport
2. Topic 2 – Intermodal connections to the hinterland
3. Topic 3 – Energy networks

### *Pillar 3: Environmental quality*

The specific objectives for this pillar are:

- To ensure a good environmental and ecological status of the marine and coastal environment by 2020 in line with the relevant EU acquis and the ecosystem approach of the Barcelona Convention.
- To contribute to the goal of the EU Biodiversity Strategy to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible, by addressing threats to marine and terrestrial biodiversity.
- To improve waste management by reducing waste flows to the sea and, to reduce nutrient flows and other pollutants to the rivers and the sea.

Two topics are identified as pivotal in relation to environmental quality in the Adriatic-Ionian Region:

1. Topic 1 – The marine environment
2. Topic 2 – Transnational terrestrial habitats and biodiversity

### *Pillar 4: Sustainable Tourism*

The specific objectives for this pillar are

- Diversification of the macro-region's tourism products and services along with tackling seasonality of inland, coastal and maritime tourism demand.
- Improving the quality and innovation of tourism offer and enhancing the sustainable and responsible tourism capacities of the tourism actors across the macro-region.

To achieve the above mentioned objectives, Pillar 4 will focus on two topics:

1. Topic 1 – Diversified tourism offer (products and services)
2. Topic 2 – Sustainable and responsible tourism management (innovation and quality)

### 2.1.1.3. EUSAIR: interaction with ADRION 2014-20

The ADRION 2014-2020 programme is supporting the governance of the EUSAIR, through its specific Priority Axis "Supporting the governance of the EUSAIR" envisaging a specific Action "Operational support to the key EUSAIR governance actors and stakeholders in their respective role". This Action is implemented through a "EUSAIR Facility Point" strategic project.

This supporting role is confirmed in the 2021-2027 programming period, where the ETC specific regulations (art. 15) state that at least 60% of the ERDF allocated under priorities other than for technical assistance shall be allocated on a maximum of three of the policy objectives and that where an Interreg programme supports a macro-regional strategy, at least 70% (and maybe the whole amount) of the total ERDF allocations<sup>74</sup> under priorities other than for technical assistance shall be allocated on the objectives of that strategy.

#### *Facility Point*

The EUSAIR Facility Point Strategic Project has been conceived as an instrument to promote and facilitate the implementation of the EUSAIR; its main responsibilities are related to providing operational support to the governance structures of the EUSAIR, involving partners from all of the eight EUSAIR participating countries.

The EUSAIR Facility Point partnership provides support to:

- EUSAIR Governing Board (GB),
- 4 Thematic Steering Groups (TSGs)

The "Facility Points" include actions as:

- Providing day-to-day operational and logistic support to the GB and TSGs
- Assisting the TSGs in 'match making' activities, bringing together project promoters and financiers
- Providing assistance in developing project concepts (pilot actions, preparatory actions, etc.)
- Supporting preparation of macro-regional actions/projects, in coordination with the TSGs
- Supporting the TSGs in monitoring, reporting and evaluation
- Facilitating the development and functioning of a stakeholders' platform

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<sup>74</sup> The actual percentage is still under discussion among the Commission, the Council and the European Parliament



- Facilitating visibility through promotion of an Adriatic Ionian profile, as well as awareness-raising, including management of a EUSAIR website and the staging of events (incl. the annual EUSAIR Forum).

#### *Facility Point Plus*

Facility Point Plus project received funding from the European Union and addresses the need for the generation of strategic (cross-pillars) projects in the Adriatic-Ionian macro-region and strengthening the capacities of the EUSAIR key implementers and other stakeholders to accelerate the implementation of the Strategy.

### 3. Needs, challenges and SWOT analysis

This final chapter extracts the main contents from the text of the Territorial analysis and introduces tables allowing for a quick glance over the ADRION situation.

#### 3.1. Main Needs

POLICY OBJECTIVE	NEEDS
<p style="text-align: center;"><b>Policy Objective 1</b></p> <p style="text-align: center;"><i>A Smarter Europe / Innovative and Smart Region</i></p>	<ul style="list-style-type: none"> <li>• Higher levels of technology transfers in order to improve the interaction among SMEs, vocational training system, Public Administration.</li> <li>• More links and synergies between research centres, the higher education sector, public administrations and private companies;</li> <li>• Increase the proportion of households with broadband access (as of today, it is lower than the EU average);</li> <li>• Enhance the uptake of digital solutions for the Public Administration</li> </ul>
<p style="text-align: center;"><b>Policy Objective 2</b></p> <p style="text-align: center;"><i>A Greener and Low Carbon Europe / Sustainable Region</i></p>	<ul style="list-style-type: none"> <li>• Increase the recycling rate in most countries;</li> <li>• Find a replacement for landfilling, still commonly adopted as a way to dispose of wastes;</li> <li>• Increasing the number and the coverage of Marine Protected Areas in the Ionian, Adriatic and Aegean seas;</li> <li>• Shift investments from hydropower since it makes the countries vulnerable to rain</li> </ul>

	<p>reduction and glacier melting as a consequence of climate changes;</p> <ul style="list-style-type: none"> <li>• Curb the risk that offshore infrastructures for oil and gas extraction can entail in spillages and deterioration if not removed;</li> <li>• Protect the marine life from exploitation, overfishing, and environmental hazard;</li> <li>• Close the coal-based and outdated lignite-based power plants still in operation in some countries;</li> <li>• Put in place public consultations for strategies for energy transition.</li> </ul>
<p style="text-align: center;"><b>Policy Objective 3</b> <i>Connected Europe / Connected Region</i></p>	<ul style="list-style-type: none"> <li>• Diminish the discrepancies in railway systems and in the accessibility to trains in order to create an efficient multimodal transport network harnessing the potential exchange of goods from the coast to the hinterland and vice-versa;</li> <li>• Foster infrastructural investments, e.g.: the support policy strategies aimed at reinforcing digitalisation, modernisation of multimodal procedures and enhancing efficiency and sustainability of transport infrastructures and port;</li> <li>• Finding alternative to trucks for freight distribution;</li> <li>• Create adequate connections between the two coasts of the Adriatic Sea.</li> </ul>

<p style="text-align: center;"><b>Policy Objective 4</b></p> <p style="text-align: center;"><i>Social Europe</i></p>	<ul style="list-style-type: none"> <li>• Fill the gender employment gap, given that the percentage of women with tertiary education is higher than the percentage of men;</li> <li>• Smooth the obstacles that many young people face: a high level of unemployment, with employment often being offered under precarious types of contracts;</li> <li>• Support innovative efforts in the approach to labour market and to vocational training, in order to foster the development of new professional profiles.</li> </ul>
<p style="text-align: center;"><b>Policy Objective 5</b></p> <p style="text-align: center;"><i>A Europe Closer to Citizens: tourism, cultural, and natural resources.</i></p>	<ul style="list-style-type: none"> <li>• Boost sustainable forms of tourism given that coastal areas and Alpine regions are experiencing increasing tourism pressure, stressing the existing infrastructures in the main holiday's spots;</li> <li>• Reduce the tourism infrastructure gap between EU member states and the remaining countries;</li> <li>• Develop the attractiveness and promotion of inland regions in Western Balkans and along the mountainous areas of Italy and Greece;</li> <li>• Create a cultural route with specific focus or theme involving the ADRION territory as a whole;</li> <li>• Promote consistent material conditions, accessibility, visibility and presentation of UNESCO sites among countries;</li> <li>• Support the identification, discussion, and implementation of territorial strategies</li> </ul>

pinpointed by a multilevel local partnership and multi-sectoral approach.

### 3.2. *Main Challenges*

<b>POLICY OBJECTIVE</b>	<b>CHALLENGES</b>
<p style="text-align: center;"><b>Policy Objective 1</b></p> <p style="text-align: center;"><i>A Smarter Europe / Innovative and Smart Region</i></p>	<ul style="list-style-type: none"> <li>• Increase the low level of cooperation and precarious background of consolidated research and business communities' networks, in order to boost existing know-how and skills, and to define the basis for future competition inside and outside the area;</li> <li>• Simplify the heterogeneity of the research and development expenditure, with no country in the ADRION region close to the EU target (3% of GDP to be invested in R&amp;D);</li> <li>• Increase the low level of digitalisation for the public sector and SMEs (eg: limiting bureaucracy efficiency, or the expansion of e-commerce).</li> </ul>
<p style="text-align: center;"><b>Policy Objective 2</b></p> <p style="text-align: center;"><i>A Greener and Low Carbon Europe / Sustainable Region</i></p>	<ul style="list-style-type: none"> <li>• Address the high export of "secondary" raw materials and low Circular Material Use Rate compared to EU average;</li> <li>• Achieve the same rate Italy has in the Circular Material Use;</li> <li>• Strengthen safeguard to biodiversity;</li> </ul>

	<ul style="list-style-type: none"> <li>• Reduce the high levels of pollutants and marine litter threatening the sea wildlife;</li> <li>• Strengthen resilience to climate changes and other natural and man-made disasters;</li> <li>• Explore specific adaptation strategies to prevent the impact of climate change such as the higher frequency and severity of extreme natural events, resulting in biodiversity and economic damages;</li> <li>• Support integrated environmental protection policies to face heat waves, instant floods, landslides that are seriously hitting the territory;</li> <li>• Prevent the overexploitation of natural resources;</li> <li>• Bring together and reinforce the measures to approach low-carbon targets and move forward an integrated energy network;</li> <li>• Advance with the construction of a common electricity market</li> </ul>
<p style="text-align: center;"><b>Policy Objective 3</b> <i>Connected Europe / Connected Region</i></p>	<ul style="list-style-type: none"> <li>• Advance with the establishment of a capillary broadband coverage, especially in the hinterlands;</li> <li>• Reduce the relevant mobility and transport divide within the area, with some areas highly connected and others suffering from lack of infrastructures and from last mile services.</li> </ul>

	<ul style="list-style-type: none"> <li>• Face the problem of road safety (in some areas) and the strong differences in the road and car density;</li> <li>• Reduce the stark disparities in the number of airports, regional airports and the volume of passengers.</li> <li>• Support the enlargement of a common electricity grid and expand the network for natural gas distribution.</li> </ul>
<p style="text-align: center;"><b>Policy Objective 4</b> <i>Social Europe</i></p>	<ul style="list-style-type: none"> <li>• Support social innovation and reduction of economic disparities in order to increase the possibilities of action for society itself.</li> <li>• Define and implement a common policy to address the high emigration and immigration rates;</li> <li>• Counterbalance the impact of demographic decline (low-fertility and ageing) in terms of the sustainability of social security systems;</li> <li>• Fill the gaps originated by the uneven distributed of social capital within the region.</li> </ul>
<p style="text-align: center;"><b>Policy Objective 5</b> <i>A Europe Closer to Citizens: tourism, cultural, and natural resources.</i></p>	<ul style="list-style-type: none"> <li>• Avoid the overexploitation of cultural resources and the negative impact of over tourism in some cases (Dubrovnik, Venezia);</li> <li>• Build transnational strategies for tourism and cultural heritage, going beyond the local or state-wide level;</li> <li>• Investigate and reduce the severe impact of tourism on environment and biodiversity.</li> </ul>

### **3.3. SWOT analysis**



### 3.3.1. POLICY OBJECTIVE 1 - A SMARTER EUROPE

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<p>The fragmented but rich context of the ADRION region constitutes a stable starting point for transnational cooperation between RC; HE; firms, Public Administration and exchange of best practices (eg for the digitalisation of the PA and training of personnel)</p> <p>EUSAIR identified “flagship” initiatives set the basis for further development of projects within a strategic framework</p> <p>Interconnected regional economy, as ADRION regions are trading among themselves and are part of the top five export partners</p> <p>There is a slow pace of convergence among ADRION regions, in terms of GDP per capita in PPS</p> <p>Diversities in economic activity portfolio</p> <p>In some countries R&amp;D staff in the business sector is relatively higher than in the education sector. This may lead to positive exchange of good practice among the countries to</p>	<p>Limited cooperation between research centres, HE; PA; firms</p> <p>ADRION is a deficit economy, as regions are net importers</p> <p>ADRION EU member countries’ economies are decreasing their significance in EU 27 in almost one decade</p> <p>A great divide among countries, in terms of GDP per capita (7:1, Italy: Albania)</p> <p>E-commerce: low SMEs’ trading of goods and services online</p> <p>SMEs: low levels of internationalisation and digitalisation</p> <p>A labour force often old and/or unskilled and with high unemployment rates</p> <p>High share of long-term unemployment</p> <p>Intense disparities among coastal areas and inland areas</p> <p>No sign for altering emigration and brain-drain trends</p>	<p>Intensified initiatives for accelerated integration of candidate countries and potential candidate country</p> <p>Normalization of relations between Western Balkan states in perspective of EU accession</p> <p>Untapped potential in human capital with room for investments in this area.</p> <p>Demand side on tourism sector worldwide, will keep grow</p> <p>Currently, aquaculture is perceived as a promising activity for food production (new species, new products) as well as for energy production (biomass).</p> <p>Emerging R&amp;D investments on biotechnology and food sector will further support agriculture, food production and aquaculture, specifically.</p> <p>Initiatives on offshore energy production activities (oil and gas extraction, wind energy)</p>	<p>A globalized and highly competitive economic context</p> <p>Intraregional disparities are more intense comparing to interregional ones</p> <p>Two main migration routes in the Mediterranean directly affect the ADRION region</p> <p>New competitors like the emerging markets, as also the recovering ones on tourism, food industry and aquaculture, specifically</p> <p>Covid-19 immediate effect on the economy threatens the consolidation of the economy convergence process and its medium-term impact is still undefined</p>

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<p>increase the R&amp;D in business sector to match needs of the markets</p> <p>Great cultural heritage and natural environment, operating as attractors for tourism development.</p> <p>Qualified human resources on tourism business, a major multiplier factor for tourism development.</p> <p>Tourism and industry are the drivers of the gross value added of the ADRION region countries</p> <p>Aquaculture is an important and well-established sector in the area.</p> <p>A rather strong network of small and medium cities</p>	<p>Low level of organisational capacities</p> <p>Lack of cooperation culture</p> <p>Low R&amp;D in total, as also in business sector</p> <p>RTD collaboration patterns show a considerable West–East divide</p> <p>Insufficient internet accessibility in marginal areas</p> <p>A prevailing monocentric structure of settlement systems</p>	<p>Chinese Belt and Road Initiative into Europe</p> <p>The Covid-19 emergency stimulated digitalisation in the society at large</p>	
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### 3.3.2. POLICY OBJECTIVE 2 - A GREENER EUROPE

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<p>The ADRION region is rich in biodiversity</p> <p>It is characterised by a relevant number of primitive forests and pristine rivers.</p> <p>Mediterranean forests constitute a unique biome, acting as a barrier to climate change</p> <p>The NATURA 2000 network has been proved an efficient tool (Croatia) and it is expected to produce similar results for the Western Balkans candidate countries</p> <p>Declining trend in the number of wildfires and burnt areas in the ADRION region during the last few years.</p> <p>Great potential for the development of renewable energy sources (notably, solar and wind energy)</p> <p>Fisheries Restricted Areas (FRAs) are proving to contribute effectively to the rebuilding of fish stocks in the Adriatic-Ionian Sea basin</p>	<p>Climate change has affected more the Adriatic Sea regions than those in Ionian Sea and Aegean Sea</p> <p>Significant tree cover losses in Greece</p> <p>Higher levels of contaminants and marine litter in the Adriatic biota than in the other sub-Mediterranean basins</p> <p>ADRION countries perform below the EU average as for eco-innovation and energy efficiency</p> <p>A few transnational initiatives to prevent and address environmental hazards, are going hand-in-hand, with lack of cooperation culture and reduced institutional capacities on disaster risk reduction mainly in the Western Balkan area</p> <p>Alarming levels of waste and pollution from the mining, the building, and the tourism sectors</p> <p>High dependency on fossil fuels (i.e. lignite) and hydropower for the</p>	<p>Higher share of investments in solar and wind energy in some of the ADRION countries, and a more favourable legislative framework in place throughout the region</p> <p>Diversify the aquaculture production by expanding to other fish species and products</p> <p>Stakeholders engaged in protection of the marine environment</p> <p>There is room for investments in organic production and collaboration among countries.</p> <p>Legal and regulatory frameworks for waste management are in place within the ADRION region</p> <p>Growing environmental awareness in the local civil society and effective networks with international civil society</p> <p>Growing interest of private companies in investing in circular economy activities</p>	<p>The ADRION region is vulnerable to several disastrous events, such as earthquakes, floods, forest fires, droughts etc.</p> <p>Climate change will make wildfires more unpredictable, adding the wind as an increasing source of damage</p> <p>A renewed and intensified interest for investments in oil industry (extraction)</p> <p>Over 70% of both demersal and small pelagic species in the Adriatic Sea are at low or intermediate biolevels mass</p> <p>Some fish species with economic interest are overexploited</p> <p>The single-species intensive aquaculture sector is expanding in the ADRION region</p> <p>Decarbonisation of the energy sector will be a challenge for the majority of ADRION countries</p>

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<p>Marine Protected Areas (MPAs) have recently been applied to ADRION area</p> <p>A gradual improvement in wastewater treatment</p> <p>EUSAIR identified “flagship” initiatives set the basis for further development of projects within a strategic framework</p>	<p>energy sector due to high availability and low costs</p> <p>Energy infrastructure need modernisation to avoid significant distribution losses</p> <p>Low recycling rate of municipal waste</p> <p>Landfilling is still the dominant way in the management of collected waste</p> <p>Overall high consumption of water</p> <p>Low share of connection to secondary wastewater treatment across the ADRION region</p> <p>Increasing urbanisation and urban sprawl consume more natural and agricultural land and expand the soil sealing rate</p> <p>Private heating is a major cause of air pollution in SEE</p> <p>Gaps in the collection of environmental statistics</p> <p>Limited number and maintenance of air monitoring stations</p>	<p>Spaces for employment and patent increase in the circular economy labour-intensive field</p> <p>Potential to develop organised electricity markets within the region</p> <p>Potential to convert outdated industrial sites</p> <p>Some countries have either launched or having under preparation/consultation revised energy strategies, adopting lower emissions</p> <p>Offering incentives for the renewal of the building stock could quickly improve energy consumption and reduce air pollution</p> <p>Enlargement process will improve the environmental protection in the Western Balkans</p> <p>There is room to improve the energy sustainability of ports in the A-I basin</p> <p>Cooperation will mitigate the serious lack of institutional coordination and efficiency</p>	
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### 3.3.3. POLICY OBJECTIVE 3 - A MORE CONNECTED EUROPE

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<p>Strategic geographical position (between Asia and Western Europe and between the Mediterranean and Central/Western Europe)</p> <p>Adriatic Motorway of the Sea: well served with many port connections, healthy competition Maritime transport is an important activity even in EU terms</p> <p>A dense port network in three seas</p> <p>Growing share in the short sea shipping (SSS)</p> <p>European route E75 is in operation fully upgraded</p> <p>A renovated and upgraded road and railway network</p> <p>EUSAIR identified “flagship” initiatives set the basis for further development of projects within a strategic framework</p>	<p>A geographically fragmented cooperation area, strongly coastal, mountainous and insular, demanding investments on technical infrastructures and on application of new mobility methods to mitigate fragmentation.</p> <p>Inadequate connections between the two coasts of the Adriatic Sea</p> <p>Inadequate or missing connections between coastal areas, insular areas and inner territories</p> <p>Internal connectivity in the region is uneven mainly in Western Balkans area</p> <p>A significant capital stock gap, shape a major need for infrastructure investments</p> <p>Various bottlenecks have limited the development of the Motorways of the Sea concept throughout the region</p> <p>Road transport dominates the freight sector, especially in the south-eastern part of the region</p>	<p>The ADRIION region as the European “entry point” for people and goods within the framework of the Belt and Road Initiative (BRI)</p> <p>The “connectivity agenda” is a key asset for Western Balkans within the enlargement process.</p> <p>Maritime tourism is steadily growing in the region pushing for maritime infrastructures upgrade</p> <p>International financial institutions are willing to invest in the WB transport sector</p> <p>A few ports across the ADRIION region are committing to multimodality</p> <p>A renewed consciousness for the need of investments on railway infrastructures and services</p> <p>Initiatives for new means of transportation (seaplanes)</p> <p>New approaches as MaaS (Mobility as a Service), will offer new opportunities to existing transportation infrastructure</p> <p>New investments in airports</p>	<p>Not any foreseen interest for investments on railway transportation</p> <p>The impact of Covid-19 emergency could lead towards more territorial isolation and in the short to medium term also to an impasse on accessibility and connectivity investments across the region</p> <p>Migration and Covid-19 will set new and upgraded security standards</p>

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	<p>Railway transportation is lagging behind EU average both in terms of infrastructure as also in freight and passenger volume</p> <p>Poor and unsafe rail system in most countries</p> <p>Multimodal transportation system is underdeveloped, especially in the south-eastern part of the region</p> <p>A network of airports with inadequate capacity to sustain tourism development and connectivity in general.</p>		
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### 3.3.4. POLICY OBJECTIVE 4 - A MORE SOCIAL EUROPE

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<p>The majority of the countries in the region have raised their social expenditures (2008-2018).</p> <p>Eastern part of ADRIION area shows a better performance on Early leavers indicator, well below EU27 average.</p>	<p>ADRIION is characterised by demographic decline, ageing population and low fertility rates.</p> <p>High emigration rates from the ADRIION countries of the Western Balkans, leading to fast decreasing labour force, increasing age dependencies and brain drain.</p> <p>Neutral balances of migration when considering skilled labour</p> <p>Unevenly distributed social capital within the region, with pronounced disparities between north and south and for the Western Balkan area also between urban and rural areas.</p> <p>Pronounced inter- and intra-regional inequalities and presence of inner peripheries.</p> <p>Major interregional disparities in unemployment with high unemployment in southern ADRIION regions, far above EU average.</p> <p>Major disparities among ADRIION countries on social protection expenditures (2:1, Italy: North Macedonia)</p>	<p>Influx of young persons in the area due to migration</p> <p>Influx of well-educated persons due to migration</p> <p>Revenues from remittances for West Balkan countries.</p> <p>Alarming demographic trends on a wide range of indicators, without any announced countermeasure</p>	<p>Immigrant flows could potentially constitute a concern depending on how the situation is managed on a pan-European and ADRIION level. The whole region is subject to land and maritime migrants' routes.</p> <p>Precarious types of employment are increasing</p> <p>Unemployment and youth unemployment appear to have permanent characteristics.</p>

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	<p>NEET highly above EU27 average</p> <p>Highest Early-leavers rates (&gt;15%) are concentrated in a central area of ADRION, consisting of Sicilia, Calabria, Puglia and Albania.</p> <p>Although there is a considerable gender gap on tertiary education attainment, on favour of women, there are still high levels of gender employment gap almost in every region of the area</p> <p>Strong disparities between the Southern and Northern ADRION areas in youth unemployment (more than 2:1)</p> <p>Digital skills of workforce are well below EU27 average</p>		
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### 3.3.5. POLICY OBJECTIVE 5 - A EUROPE CLOSER TO CITIZENS

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<p>The region has extraordinary cultural and natural heritage, with 72 cultural and natural properties belonging to UNESCO World Heritage List, or 15% of the whole European continent, plus 44 elements inscribed in the UNESCO list of Intangible Heritage Humanity.</p> <p>A region plentiful of natural and cultural resources and experiences for the development of tourism</p> <p>Tourism is a significant and well-developed activity for Italy, Greece and Croatia and an emerging economic sector for the other ADRION countries. Same level of disparities concern tourism infrastructure.</p> <p>Highly experienced workforce</p> <p>A well branded product worldwide</p> <p>Transnational networks of cultural routes and eno-gastronomic stakeholders provide the basis for extending the offer on rural and active tourism</p> <p>EUSAIR identified “flagship” initiatives set the basis for further development</p>	<p>ADRION touristic product has been developed on mass tourism and is heavily dependent on it.</p> <p>Seasonality remains very high in the coastal areas, affecting employment, environment and local services</p> <p>Low level of R&amp;D on tourism industry</p> <p>Low interconnection of tourism with creative and cultural economy</p> <p>The cultural and creative industries (CCI’s) are underperforming in ADRION</p> <p>Internal areas are poorly connected</p> <p>Differences in tourism infrastructure between the states: most of the non-EU member states lag behind in terms of marketing, promotion, standards of accommodation.</p> <p>Railroads and regional airports networks hamper the quick connections, preventing the development and marketing of short-time packets</p> <p>Tourism and cultural heritage strategies are often limited to a local</p>	<p>Cities and territories in the inland regions have great cultural and natural heritage potential; they show rising rates in tourism arrivals but are not affected by mass tourism</p> <p>The presence of transboundary cultural and natural heritage elements provides opportunities to enhance networking between stakeholders and to promote the destination as part of a unique tourist region</p> <p>Rural and cultural tourism can provide employment to inland marginal areas, isolated from the main lines of development and affected by depopulation and emigration</p> <p>Digitalisation of tourism sector, demand for new products (sites, experiences)</p> <p>Tangible and intangible cultural heritage as also the natural heritage of ADRION, are a strong asset for CCI’s</p>	<p>Mass tourism is expanding in the region at the expense of natural resources, cultural heritage and welfare of local communities</p> <p>Carrying capacity overcome in most crowded tourism locations</p> <p>Climate change events, particularly floods and wave heats may affect the touristic capacity of ADRION coasts</p> <p>New emerging markets elsewhere, as well as recovering ones</p> <p>New emerging patterns on tourism industry in terms of customer approach, new products/experiences, supply side call for quick innovative reactions</p> <p>Cultural and natural heritage need expenditures and investments for conservation, maintenance, protection and promotion.</p> <p>The negative impact of Covid-19 emergency on the tourism industry in the region - the sector may remain in stalemate for an unpredictable period</p>

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<p>of projects within a strategic framework</p>	<p>or state-wide level, lacking the transnational element and failing to promote the ADRION region as a whole</p> <p>Almost every ADRION country underperforms in cultural employment and cultural enterprises shares rates with respect to the EU average</p>	<p>Demand side on tourism sector worldwide, will keep grow</p>	
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### 3.3.6. REFERENCES

- Adriatic Sea Forum (2019), Adriatic Sea Tourism Report - 2019 Edition, [http://www.adriaticseaforum.com/2019/Public/RisposteTurismo\\_AdriaticSeaTourismReport2019\\_ExecutiveSummary.pdf](http://www.adriaticseaforum.com/2019/Public/RisposteTurismo_AdriaticSeaTourismReport2019_ExecutiveSummary.pdf)
- Agency for Statistics of Bosnia and Herzegovina (2018) 'Innovation Activity of Enterprises, 2014-2016'. Sarajevo: Agency for Statistics of Bosnia and Herzegovina, [http://bhas.gov.ba/data/Publikacije/Saopštenja/2018/RDE\\_04\\_2014\\_Y2\\_0\\_BS.pdf](http://bhas.gov.ba/data/Publikacije/Saopštenja/2018/RDE_04_2014_Y2_0_BS.pdf)
- Agency for Statistics of Bosnia and Herzegovina (2020) 'Women and Men in Bosnia and Herzegovina'. Sarajevo: Agency for Statistics of Bosnia and Herzegovina, [http://bhas.gov.ba/data/Publikacije/Bilteni/2020/FAM\\_00\\_2019\\_TB\\_0\\_BS.pdf](http://bhas.gov.ba/data/Publikacije/Bilteni/2020/FAM_00_2019_TB_0_BS.pdf)
- Beškovnik Bojan (2013) Possibilities for Motorways of the Sea development in the eastern part of the Adriatic Sea, in Polish Maritime Research 20(1):87-93 January [https://www.researchgate.net/publication/256766476\\_Possibilities\\_for\\_Motorways\\_of\\_the\\_Sea\\_development\\_in\\_the\\_eastern\\_part\\_of\\_the\\_Adriatic\\_Sea](https://www.researchgate.net/publication/256766476_Possibilities_for_Motorways_of_the_Sea_development_in_the_eastern_part_of_the_Adriatic_Sea)
- Cámara, Noelia & Tuesta, David (2017) DiGiX: the Digitalization Index, n.17/3 February, BBVA Research [https://www.bbvaereasearch.com/wp-content/uploads/2017/02/WP\\_17-03\\_DiGiX\\_methodology.pdf](https://www.bbvaereasearch.com/wp-content/uploads/2017/02/WP_17-03_DiGiX_methodology.pdf)
- Cvetanoski Ilcho (2019) Ohrid and its lake, a UNESCO heritage in danger", Osservatorio Balcani e Caucaso Transeuropa, 24 September. <https://www.balcanicaucaso.org/eng/Areas/North-Macedonia/Ohrid-and-its-lake-a-UNESCO-heritage-in-danger-196684#threats>
- DG Connect (2018), Shaping Europe's digital future.I-DESI 2018: How digital is Europe compared to other major world economies? European Commission, 26 October 2018 <https://ec.europa.eu/digital-single-market/en/news/how-digital-europe-compared-other-major-world-economies>
- DG Regio (2020) An Economy that works for people: Cohesion Policy support for small and medium-sized enterprises <https://cohesiondata.ec.europa.eu/stories/s/n4ee-2h83>
- Desi Report (2019) Connectivity Broadband market developments in the EU, European Commission [https://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=60010](https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=60010)
- Deutsche Welle (2019), "Greece expects 100,000 more migrants in 2020", 18 December, <https://www.dw.com/en/greece-expects-100000-more-migrants-in-2020/a-51716555>
- Duval Guillaume (2019) 'Landscapes are increasingly manmade' Saturday 25 May *European Data Journalism Network EDJNet*, <https://www.europeandatajournalism.eu/eng/News/Data-news/Landscapes-are-increasingly-manmade>
- EASME (2019) Annual Report on European SMEs 2018/2019, European Commission, November, EASME/COSME/2017/031 <https://ec.europa.eu/docsroom/documents/38365/attachments/2/translations/en/renditions/native>
- EEA (2018) Municipal waste management Montenegro Country Factsheet, European Environmental Agency <https://www.eea.europa.eu/themes/waste/waste-management/municipal-waste-management-country-profiles/montenegro-municipal-waste-factsheet-2018/>
- EEA (2018a) Municipal waste management Albania Country Factsheet, September, European Environmental Agency <https://www.eea.europa.eu/themes/waste/waste-management/municipal-waste-management-country-profiles/albania-municipal-waste-factsheet-2018/>
- EEA (2018b) Marine Protected Areas October, European Environmental Agency <https://www.eea.europa.eu/publications/marine-protected-areas>
- EEA (2018c) Natural capital accounting in support of policymaking in Europe, Report n.26, European Environmental Agency - <https://www.eea.europa.eu/publications/natural-capital-accounting-in-support>
- EEA (2018d) Addressing climate change adaptation in transnational regions in Europe, European Environmental Agency, Briefing no. 17 <https://www.eea.europa.eu/themes/climate-change-adaptation/adaptation-policies/adaptation-policies-in-transnational-regions>
- EEA (2016) More from less. material resource efficiency in Europe. Country Slovenia, May, European Environmental Agency <https://www.eea.europa.eu/publications/more-from-less/slovenia-material-resource-efficiency/view>
- EnvNet (2018) Circular Economy Report Country Specific Report, <http://env-net.org/circular-economy-status-reports/?preview=true#>
- Eurofish (2020) Member Country Profile <https://www.eurofish.dk>
- EC European Commission (2017), "The European Pillar of Social Rights in 20 principles", [https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles\\_en](https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en)
- EC European Commission (2017) European Semester Thematic Factsheet Research and Innovation, 16 november [https://ec.europa.eu/info/sites/info/files/file\\_import/european-semester\\_thematic-factsheet\\_research-innovation\\_en.pdf](https://ec.europa.eu/info/sites/info/files/file_import/european-semester_thematic-factsheet_research-innovation_en.pdf)

- EC European Commission (2019a) Albania SBA Fact Sheet [https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019\\_albania.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019_albania.pdf)
- EC European Commission (2019b) Bosnia Herzegovina SBA Fact Sheet [https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019\\_bosniaandherzegovina.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019_bosniaandherzegovina.pdf)
- EC European Commission (2019c) Greece SBA Fact Sheet <https://ec.europa.eu/docsroom/documents/38662/attachments/13/translations/en/renditions/native>
- EC European Commission (2019d) Croatia SBA Fact Sheet <https://ec.europa.eu/docsroom/documents/38662/attachments/5/translations/en/renditions/native>
- EC European Commission (2019e) Italia SBA Fact Sheet <https://ec.europa.eu/docsroom/documents/38662/attachments/16/translations/en/renditions/native>
- EC European Commission (2019f) Montenegro SBA Fact Sheet [https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019\\_montenegro.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019_montenegro.pdf)
- EC European Commission (2019g) North Macedonia SBA Fact Sheet [https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019\\_north-macedonia.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019_north-macedonia.pdf)
- EC European Commission (2019h) Serbia SBA Fact Sheet [https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019\\_serbia.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/sba-fs-2019_serbia.pdf)
- EC European Commission (2019i) Slovenia SBA Fact Sheet <https://ec.europa.eu/docsroom/documents/38662/attachments/26/translations/en/renditions/native>
- EC European Commission (2019j) 'Joint Employment Report 2019', <https://ec.europa.eu/social/BlobServlet?docId=20431&langId=en>
- EC European Commission (2020) Orientation Paper Ref. Ares(2019)7164059 - 20/11/2019
- EDJNet (2020) Don't Miss the Train, European Data Journalism NETwork, <https://www.europeandatajournalism.eu/eng/Investigations/Don-t-Miss-the-Train>
- EFFIS (2019) Forest Fires in Europe, Middle East and North Africa 2018 [https://effis.jrc.ec.europa.eu/media/cms\\_page\\_media/40/Annual\\_Report\\_2018\\_final\\_pdf\\_06.11.2019\\_n208KFB.pdf](https://effis.jrc.ec.europa.eu/media/cms_page_media/40/Annual_Report_2018_final_pdf_06.11.2019_n208KFB.pdf)
- EIS European Innovation Scoreboard (2019) [https://ec.europa.eu/growth/industry/policy/innovation/scoreboards\\_en](https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en)
- Embassy of the People's Republic of China in the Republic of Albania (2017). "Kompania kineze "Hilong", shërbim për sektorin e naftës në Shqipëri", 14 August <http://al.chineseembassy.org/eng/zgyw/t1484487.htm>
- Embassy of the People's Republic of China in the Republic of Albania (2019). "Ambasada e Kinës në Shqipëri zhvillon seminarin për "Një brez, një rrugë" ", 15 January <http://al.china-embassy.org/eng/zagx/zajw/t1629557.htm>
- ESMAP (2018) Western Balkans: Directions for the Energy Sector, June, World Bank <http://documents.worldbank.org/curated/en/201391544823541838/pdf/Western-Balkans-Energy-Directions-Paper.pdf>
- EUMOFA (2017) 'EU Organic Aquaculture'. Bruxelles: Directorate-General for Maritime Affairs and Fisheries, [https://www.eumofa.eu/documents/20178/84590/Study+report\\_organic+aquaculture.pdf](https://www.eumofa.eu/documents/20178/84590/Study+report_organic+aquaculture.pdf)
- European Investment Bank (2018) *Infrastructure Investment in the Western Balkans A First Analysis*. The EIB Economics Department. [https://www.eib.org/attachments/efs/infrastructure\\_investment\\_in\\_the\\_western\\_balkans\\_en.pdf](https://www.eib.org/attachments/efs/infrastructure_investment_in_the_western_balkans_en.pdf)
- Eurostat (2019a) Enlargement countries - information and communication technology statistics, February [https://ec.europa.eu/eurostat/statistics-explained/index.php/Enlargement\\_countries\\_-\\_information\\_and\\_communication\\_technology\\_statistics#Access\\_to\\_the\\_internet](https://ec.europa.eu/eurostat/statistics-explained/index.php/Enlargement_countries_-_information_and_communication_technology_statistics#Access_to_the_internet)
- Eurostat (2019b) Digital economy and society statistics - households and individuals, June, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Digital\\_economy\\_and\\_society\\_statistics\\_-\\_households\\_and\\_individuals#Internet\\_access](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Digital_economy_and_society_statistics_-_households_and_individuals#Internet_access)
- Eurostat (2019c) Digital economy and society statistics - enterprises, May [https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital\\_economy\\_and\\_society\\_statistics\\_-\\_enterprises](https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_society_statistics_-_enterprises)
- Eurostat (2019d) Digital economy and digital society statistics at regional level, March, [https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital\\_economy\\_and\\_digital\\_society\\_statistics\\_at\\_regional\\_level#Digital\\_skills](https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_digital_society_statistics_at_regional_level#Digital_skills)
- Eurostat (2020) Total fertility rate by NUTS 2 region, <https://ec.europa.eu/eurostat/databrowser/view/tgs00100/default/map?lang=en>
- Eurostat, Management of waste excluding major mineral waste, by waste management operation <https://data.europa.eu/euodp/it/data/dataset/EWKq0mPNu9gfbwBPCx1Zg>

TERRITORIAL ANALYSIS

ESPON (2018) Working Paper, The territorial dimension of future policies

<https://www.espon.eu/sites/default/files/attachments/VOL%20D%2023.pdf>

European Council (2016), "EU-Turkey statement, 18 March 2016", <https://www.consilium.europa.eu/en/press/press-releases/2016/03/18/eu-turkey-statement/>

Ferrari Lorenzo (2019) 'Cold housing and polluted cities? Something is changing in the Balkans', 05 March, *European Data Journalism Network EDJNet*, <https://www.europeandatajournalism.eu/eng/News/Data-news/Cold-housing-and-polluted-cities-Something-is-changing-in-the-Balkans>

Frontex (2019), "Migratory Routes", <https://frontex.europa.eu/along-eu-borders/migratory-routes/central-mediterranean-route/>

Gardiner Barry, Schuck Andreas, Schelhaas Mart-Jan, Orazio Christophe, Blennow Kristina and Nicoll Bruce (editors) (2013) *Living with Storm Damage to Forests*, European Forest Institute [http://www.efi.int/sites/default/files/files/publication-bank/2018/efi\\_wsctu3\\_2013.pdf](http://www.efi.int/sites/default/files/files/publication-bank/2018/efi_wsctu3_2013.pdf)

Gardiner Barry et al (2012) *Destructive Storms in European Forests: Past and Forthcoming Impacts*, DG Environment, [https://ec.europa.eu/environment/forests/pdf/STORMS%20Final\\_Report.pdf](https://ec.europa.eu/environment/forests/pdf/STORMS%20Final_Report.pdf)

Gatti Marta (2019) 'An ever less fertile Europe', *Osservatorio Balcani Caucaso Transeuropa*, 01/02 <https://www.balcanicaucaso.org/eng/All-the-news/An-ever-less-fertile-Europe-191984>

Global Forest Watch (2020) *Forest Monitoring Designed for Action* <https://www.globalforestwatch.org/>

Grimault Vincent (2019) 'Europe is being paved over', *European Data Journalism Network EDJNet*, 20 November <https://www.europeandatajournalism.eu/eng/News/Data-news/Europe-is-being-paved-over>

FAO (2018) *The State of Mediterranean and Black Sea Fisheries*. General Fisheries Commission for the Mediterranean. Rome <http://www.fao.org/3/ca2702en/CA2702EN.pdf>

Hach Kate, Trenkmann Eileen (2019) 'Entrepreneurial Ecosystem in Albania with Focus on Tirana', [http://challengefund.euforinnovation.al/file/2019/07/Gap-Analysis\\_E-Publication.pdf](http://challengefund.euforinnovation.al/file/2019/07/Gap-Analysis_E-Publication.pdf)

INSTAT (2019) 'Innovation in Small and Medium Enterprises, 2016-2018'. Tirana: Institute of Statistics, <http://www.instat.gov.al/media/6358/innovation-in-small-and-medium-enterprises-2016-2018.pdf>

Kučić Lenart J. (2018) 'Slovenia, towards the future of droughts and floods', 07 November, *European Data Journalism Network EDJNet*, <https://www.europeandatajournalism.eu/eng/News/Data-news/Slovenia-towards-the-future-of-droughts-and-floods>

Lovrić Marko, Lovrić Nataša, Schraml Ulrich and Winkel Georg (2018) 'Implementing Natura 2000 in Croatian forests: An interplay of science, values and interests' *Journal for Nature Conservation* Volume 43, June 2018, Pages 46-66 <https://doi.org/10.1016/j.jnc.2018.02.005>

Madhi Gentiola (2018) "Connecting Western Balkans to the European Union", *Osservatorio Balcani Caucaso Transeuropa*, 17 May, <https://www.balcanicaucaso.org/eng/Areas/Balkans/Connecting-Western-Balkans-to-the-European-Union-187712>

Martino, Francesco (2017) "China in the Balkans, 'firmly in play in the coming years', *Osservatorio Balcani Caucaso Transeuropa*, 28 January <https://www.balcanicaucaso.org/eng/Areas/Balkans/China-in-the-Balkans-firmly-in-play-in-the-coming-years-184178>

Martino, Francesco (2018) "China goes to Serbia: infrastructure and politics", *Osservatorio Balcani Caucaso Transeuropa*, 23 January <https://www.balcanicaucaso.org/eng/Areas/Serbia/China-goes-to-Serbia-infrastructure-and-politics-185401>

Med-Iamer (2020) *MedMad Integrated Project*, Adriatic Ionian Ecoregion. Maritime transport [http://www.medmaritimeprojects.eu/download/ProjectMediamer/Final\\_factsheets/AIo\\_Transport\\_factsheet.pdf](http://www.medmaritimeprojects.eu/download/ProjectMediamer/Final_factsheets/AIo_Transport_factsheet.pdf)

Marusic Sinisa Jakov, Milekic Sven and Tomovic Dusica (2017) *Uncontrolled Tourism Threatens Balkan UNESCO Sites*, 17 April, *Balkan Insight* <https://balkaninsight.com/2017/04/17/uncontrolled-tourism-threatens-balkan-unesco-sites-04-13-2017/>

Monitor.al (2018). "Shqipëria shpenzon 3 herë më pak se BE për mbrojtjen sociale", 13 December, <https://www.monitor.al/shqiperia-shpenzon-3-herë-me-pak-se-be-per-mbrojtjen-sociale/>

OBCT (2014) *Dossier Inondazioni in Serbia, Bosnia Erzegovina e Croazia*, *Osservatorio Balcani Caucaso Transeuropa*, <https://www.balcanicaucaso.org/Dossier/Inondazioni-in-Serbia-Bosnia-Erzegovina-e-Croazia>

OECD (2002) *Redefining Territories: The Functional Regions*.

OECD (2019) *TERRITORIAL WIDE AREA COOPERATION IN THE ADRIATIC-IONIAN REGION*

Oslo Manual (2018) *The Measurement of Scientific, Technological and Innovation Activities*, [https://www.oecd-ilibrary.org/science-and-technology/oslo-manual-2018\\_9789264304604-en?itemId=/content/publication/9789264304604-en&csp=f0a6f52d4530c0667c4c56b36905227f&itemIGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/science-and-technology/oslo-manual-2018_9789264304604-en?itemId=/content/publication/9789264304604-en&csp=f0a6f52d4530c0667c4c56b36905227f&itemIGO=oecd&itemContentType=book)

Randone, M. (2016) *MedTrends Project: Blue Growth Trends in the Adriatic Sea - the challenge of environmental protection*. WWF Mediterranean. [http://www.medtrends.org/reports/MedTrends\\_AD-Report.pdf](http://www.medtrends.org/reports/MedTrends_AD-Report.pdf)

- [Reuters \(2019\). "China, Greece agree to push ahead with COSCO's Piraeus Port investment", November 11, <https://www.reuters.com/article/us-greece-china/china-greece-agree-to-push-ahead-with-coscos-piraeus-port-investment-idUSKBN1XL1KC>](https://www.reuters.com/article/us-greece-china/china-greece-agree-to-push-ahead-with-coscos-piraeus-port-investment-idUSKBN1XL1KC)
- Reuters (2020). "Greece pushes back migrants after Turkish border 'onslaught'", February 29, <https://www.reuters.com/article/us-syria-security-greece/greece-pushes-back-migrants-after-turkish-border-onslaught-idUSKBN20NOGE>
- Rolandi, Francesca (2019), "There's an urgent need for foreign labour in Croatia", EDJNet, 18 January, <https://www.europeandatajournalism.eu/eng/News/Data-news/There-s-an-urgent-need-for-foreign-labour-in-Croatia>
- Routes4U (2018) Roadmap for the Adriatic-Ionian Region Heritage protection, cultural tourism and transnational cooperation through the Cultural Routes, EU-CoE, <https://rm.coe.int/16808ecc0a>
- SAC (2019) Scientific Advisory Committee on Fisheries Fourth meeting of the Subregional Committee for the Adriatic Sea (SRC - AS) May 2019 <http://www.fao.org/gfcm/technical-meetings/detail/en/c/1198579/>
- Schmidt Johannes (2019), Action Plan for Sustainable and Low-carbon Port of Bar, Interreg ADRION, <https://supair.ADRIONinterreg.eu/wp-content/uploads/2019/12/Action-Plan-for-a-Sustainable-and-Low-carbon-Port-of-Bar.pdf>
- Stamatoukou Eleni (2020) 'Railways in Greece: poor service, no competition', Osservatorio Balcani Caucaso Transeuropa, 12 February <https://www.balcanicaucaso.org/eng/All-the-news/Railways-in-Greece-poor-service-no-competition-199234>
- Stamatoukou Eleni (2019) The problem with refugee camps in Greece, 27 December, European Data Journalism Network, <https://www.europeandatajournalism.eu/eng/News/Data-news/The-problem-with-refugee-camps-in-Greece>
- Stamatoukou Eleni (2019a) How the Greek policy on migration is changing, 27 December, European Data Journalism Network [tps://www.europeandatajournalism.eu/eng/News/Data-news/How-the-Greek-policy-on-migration-is-changing](https://www.europeandatajournalism.eu/eng/News/Data-news/How-the-Greek-policy-on-migration-is-changing)
- Strathatos, Ilias and Morfonios, Nikos (2019), "Greece's deadly rail tracks", EDJNet, 30 December, <https://www.europeandatajournalism.eu/eng/News/Data-news/Greece-s-deadly-rail-tracks>
- STECF (2019) Stock Assessment 2 European Fisheries for demersal species in the Adriatic Sea, Scientific and Technical Committee for Fisheries [https://stecf.jrc.ec.europa.eu/reports/medbs/-/asset\\_publisher/y1bW/document/id/2636117?inheritRedirect=false](https://stecf.jrc.ec.europa.eu/reports/medbs/-/asset_publisher/y1bW/document/id/2636117?inheritRedirect=false)
- STECF (2018) EU Economic Report of the UE Aquaculture Sector, [https://stecf.jrc.ec.europa.eu/reports/economic/-/asset\\_publisher/d7Ie/document/id/2446795](https://stecf.jrc.ec.europa.eu/reports/economic/-/asset_publisher/d7Ie/document/id/2446795)
- Regional Innovation Scoreboard (2019) <https://ec.europa.eu/growth/sites/growth/files/ris2019.pdf>
- UNESCO (2005) Convention on the Protection and Promotion of the Diversity of Cultural Expressions, <https://en.unesco.org/creativity/convention>
- UNESCO (2017) Plitvice Lakes National Park (Croatia) Decision:41 COM 7B.3 (N 98bis) <https://whc.unesco.org/en/decisions/6861>
- UNESCO (2017a) "What is meant by 'cultural heritage'?", UNESCO website, <http://www.unesco.org/new/en/culture/themes/illicit-trafficking-of-cultural-property/unesco-database-of-national-cultural-heritage-laws/frequently-asked-questions/definition-of-the-cultural-heritage/>
- UNESCO (2019) Decision : 43 COM 8B.9 Natural and Cultural Heritage of the Ohrid region (Albania, North Macedonia) <https://whc.unesco.org/en/decisions/7366/>
- Valentino Stefano (2020) World's beaches disappearing due to climate crisis – study  
2 March, The Guardian <https://www.theguardian.com/environment/2020/mar/02/world-sandy-beaches-disappearing-due-to-climate-crisis-study>
- Valentino Stefano (2019) 'Strait of Otranto: Italy vetoes the proposed protected reserve', 05 January, Osservatorio Balcani Caucaso Transeuropa <https://www.balcanicaucaso.org/eng/Areas/Italy/Strait-of-Otranto-Italy-vetoes-the-proposed-protected-reserve-197704>
- Vlachogianni Thomais, Anastasopoulou Aikaterini, Fortibuoni Tomaso, Ronchi Francesca and Zeri Christina (2017) 'Marine Litter Assessment in the Adriatic and Ionian Seas'. IPA-Adriatic DeFishGear Project, [http://mio-ecsde.org/wp-content/uploads/2017/02/Final-MLA-pages\\_final.pdf](http://mio-ecsde.org/wp-content/uploads/2017/02/Final-MLA-pages_final.pdf)
- Vousdoukas Michalis I., Ranasinghe Roshanka, Mentaschi Lorenzo, Plomaritis Theocharis A., Athanasiou Panagiotis, Luijendijk Arjen & Feyen Luc (2020) 'Sandy coastlines under threat of erosion 02 March', *Nature*, <https://www.nature.com/articles/s41558-020-0697-0>
- World Bank (2019) Western Balkans and Croatia Urbanization and Territorial Review. <http://documents.worldbank.org/curated/en/404331565242902772/pdf/Western-Balkans-and-Croatia-Urbanization-and-Territorial-Review.pdf>
- Xinhua (2020). "Greece's Piraeus port kicks off cruise terminal expansion project", 26 February, [http://www.xinhuanet.com/english/2020-02/26/c\\_138818897\\_2.htm](http://www.xinhuanet.com/english/2020-02/26/c_138818897_2.htm)

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Zagreb Summit. 2020. *Zagreb Declaration: Statements and Remarks*. Council of the European Union.

<https://www.consilium.europa.eu/media/43776/zagreb-declaration-en-06052020.pdf>

Zeneli Valbona (2020), "The Western Balkans: Low Hanging Fruit for China?", *The Diplomat*, 24 February,

<https://thediplomat.com/2020/02/the-western-balkans-low-hanging-fruit-for-china/>