

## European Territorial Cooperation

# Italy – Croatia Cross-border Cooperation Programme 2014-2020



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## LIST OF ACRONYMS AND ABBREVIATIONS

CBC: Cross-border cooperation

CP: Cooperation Programme

CPR: Common Provision Regulation

CSF: Common Strategic Framework

ERDF: European Regional Development Fund

ESF: European Social Fund

ETC: European Territorial Cooperation

IP: Investment Priority

JS: Joint Secretariat

MS: Member States

SEA: Strategic Environmental Assessment

SO: Specific Objective

SWOT: Strengths, Weaknesses, Opportunities, Threats

TF: Task Force

TO: Thematic Objective

## **SECTION 1. STRATEGY FOR THE COOPERATION PROGRAMME'S CONTRIBUTION TO THE UNION STRATEGY FOR SMART, SUSTAINABLE AND INCLUSIVE GROWTH AND THE ACHIEVEMENT OF ECONOMIC, SOCIAL AND TERRITORIAL COHESION**

### *1.1. STRATEGY FOR THE COOPERATION PROGRAMME'S CONTRIBUTION TO THE UNION STRATEGY FOR SMART, SUSTAINABLE AND INCLUSIVE GROWTH AND TO THE ACHIEVEMENT OF ECONOMIC, SOCIAL AND TERRITORIAL COHESION*

#### *1.1.1. Description of the cooperation programme's strategy for contributing to the delivery of the Union strategy for smart, sustainable and inclusive growth and for achieving economic, social and territorial cohesion*

This cooperation programme (CP) describes the context and priorities for cross-border cooperation (CBC) between Italy and Croatia for 2014-2020.

This programme enables regional and local stakeholders from two countries to exchange knowledge and experiences, to develop and implement pilot actions, to test the feasibility of new policies, products and services and to support investments. The programme is part-funded by the European Regional Development Fund (ERDF).

The chapter presents the programme territory and analyses its main features for selecting a list of key development assets and challenges in the Italy - Croatia area that may be addressed through the cross-border cooperation.

The current version of the CP offers the analysis in its comprehensive form. It serves as a point of departure for unfolding a programme strategy which aims to improve the economic, social and territorial cohesion of the area and – at the same time – to contribute to the European Union's 2020 Strategy for smart, sustainable and inclusive growth. Future versions of the document will report a summarized version able to fit with the length requirements of the ETC programmes' template.

##### *1.1.1.1. The programme territory*

The programme area includes the following administrative units at the NUTS III level:

- in Italy – administrative units (province) of Teramo, Pescara, Chieti (Abruzzo), Campobasso (Molise), Brindisi, Lecce, Foggia, Bari, Barletta-Andria-Trani (Puglia), Venezia, Padova, Rovigo (Veneto), Pordenone, Udine, Gorizia, Trieste (Friuli Venezia Giulia), Ferrara, Ravenna, Forlì-Cesena, Rimini (Emilia Romagna), Pesaro e Urbino, Ancona, Macerata, Ascoli Piceno, Fermo (Marche);
- Croatia – administrative units (županija) Primorsko-goranska, Ličko-senjska, Zadarska, Šibensko-kninska, Splitsko-dalmatinska, Istarska, Dubrovačko-neretvanska (Adriatic Croatia region), Karlovačka (Continental Croatia region).

The whole Programme area spreads over 85.562 km<sup>2</sup> and according to the last census (2011) the population is 12.465.861 inhabitants.

In terms of population and surface, the Italian regions are very significant and represent 88% of population and 67% of surface area of the whole Programme territory.

Programme Area	Surface	%	Population	%
Croatia	28.341	33%	1.540.834	12%
Italy	57.221	67%	10.925.027	88%
Total	85.562	100%	12.465.861	100%

Table 1: basic characteristics – population and surface.

Source: Croatian Bureau of Statistics and Italian National Institute of Statistics

The area contains territories of two EU member states with different levels of socio-economic development. The single market opportunities and policies facilitating the free movement of people, goods, services and capital triggered convergence and competition processes but these have not yet managed to level significant socio economic disparities within the programme area.

Since early 2000s, the emerging cross-border ties established within the framework of previous platforms have resulted in many diverse collaboration networks spreading across the area and involving: regional and local authorities, business organisations, research and academic institutions and non-governmental organisations. The cooperative networks were strengthened by joint projects under the IPA Adriatic CBC Programme 2007-2013, SEE and MED and provide a solid fundament for the years ahead.

### 1.1.1.2. Geographical specificities

The Italy - Croatia area shows a distinct blue and green pattern, featuring the sea basin, coastal landscapes, green but also urban areas. The location of the Adriatic Sea in the very centre of the territory requires, on one hand, more efforts to accomplish collaboration aims related with the cross-border integration of economic, educational and labour markets. On the other, it is a joint economic and environmental asset, and a natural platform for cooperation building on long-dating trade exchange contacts reflected in some common traits of cultural heritage.

The Croatian part of Programme area has 65 towns, 177 municipalities and 3095 settlements. Main urban areas are Rijeka (128.624 inhabitants), Zadar (75.062 inhabitants), Šibenik (46.332 inhabitants), Split (178.102 inhabitants), Pula (57.460 inhabitants), Dubrovnik (42.615 inhabitants) and Karlovac (55.705 inhabitants). The Italian part has 25 provinces and 1.267 municipalities while main urban areas are Bari (315.993 inhabitants), Venice (261.362 inhabitants), Padova (214.125 inhabitants), Trieste (202.123 inhabitants), Ravenna (160.243 inhabitants), Foggia (153.143 inhabitants), Ferrara (131.841 inhabitants), Pescara (123.103 inhabitants), Ancona (102.997 inhabitants), Udine (100.514 inhabitants) and The ports of Rijeka and Trieste offer to this area considerable possibility for developing maritime trade.

Both countries have many national parks and protected areas. In Italy the coverage is around 5% while in Croatia it is 1,77% with all the national parks in the Programme area. Protected area surface included in Natura 2000 network In Italy 21,20% while in Croatia is much higher with 45.86% significantly higher than EU28 of 24.23%.

Area of Adriatic Sea is 138.595 km<sup>2</sup>, of which 31.067 km<sup>2</sup> makes Croatian coastal seas. Length of the Adriatic Sea is 783 km and an average width of 170 km.

Adriatic Sea extends parallel to the direction of the Dinarides, from the north-west to north-east. It is rich in flora and fauna and provides a great opportunity for the development of tourism and fishing. Croatia is rightly called "the land of a thousand islands". Adriatic Coast has 1.233 islands, islets and reefs, of which 1.185 are in the Croatian Adriatic coast. 718 of them are islands and 66 of them are inhabited.

Most of the Croatian Programme area is covered by Dinaric Alps mountain ranges that stretch from north-west to south-east. In the inland the climate is moderate Mediterranean while the coast has a Mediterranean climate. The soil is in generally very poor, except on the plains with natural grass and fertile soil.

On the north there are counties of Istarska, Primorsko-goranska and Karlovačka. Croatian peninsula of Istria and the Brijuni Islands National Park, are one of the most important tourist destinations in the area with an important natural and cultural heritage. Brijuni Islands National Park are composed by fourteen islands with significant biodiversity and the cultural heritage presented through assets such as the UNESCO World Heritage Euphrasius Basilica in the historical center of Poreč which is one of the earliest Episcopal Christian monuments.

The central part with counties of Ličko-senjska, Zadarska and Šibensko-kninska, includes some areas that are of important value for their biological and landscape diversity such as Kornati National park and internationally protected - UNESCO has declared the Plitvice Lakes National Park as a World Heritage site.

Going to the south, there are Splitsko-dalmatinska and Dubrovačko-neretvanska with national park Mljet Island. Also, there are many cultural heritage sites included in the UNESCO list like the Old City of Dubrovnik called the “Pearl of the Adriatic”, Diocletian’s Palace in Split and city of Trogir.

Italy’s Programme area is a combination between expansive range of hills and Adriatic Sea, valleys, rivers and canals. From Friuli Venezia Giulia on the north-east, to Puglia that is called the “heel of Italy’s boot”, in the south-east, there is a great diversity. Pre-Alps, Apennines and Adriatic Sea give the country a unique landscape.

The Italian coast is affected by a high level of urbanization. Consequent transformations of the coastal habitat have caused widespread congestion and a constant reduction of the natural environment. There are nonetheless, excellent environmental sites such as national and regional protected areas both in the north and the south of the country.

The Programme area in Italy consists mainly of the plains, with the exception of the mountain zones of the pre-Alps and the Apennines. On the plains, despite the presence of large urban centres, there is considerable pressure on agricultural land due to urban sprawl and the continual demand for development land.

In the northern part of the country there are regions of Friuli Venezia Giulia, Veneto and Emilia-Romagna. The principal infrastructure, i.e. ports, airports, railways and roads, are well developed with some critical points such as road links and railway junctions on north-south and east-west routes. The industrial zones, rural areas, lagoons and the continuous linear urbanization in the south of the region complement the infrastructure system.

The territory has a rich cultural heritage with many UNESCO recognized sites like the Aquileia Archaeological Area and Patriarchal Basilica in Friuli Venezia Giulia region, Venezia and its Lagoon, the Botanical Garden in Padova (Veneto), Ferrara, city of the Renaissance, the Po Delta, and the Early Christian Monuments of Ravenna in Emilia-Romagna region.

The central part of the country consists of regions Marche, Abruzzo and Molise. The internal territories include significant natural systems with a high degree of biodiversity which has resulted in the creation of three major National Parks and several other parks and nature reserves. There are several protected areas in Marche, some of which have significant national value such as the Sibillini Mountains National Park, the Gran Sasso-Laga National Park and other important regional parks along the coast such as Conero Park.

In the south there is Puglia which forms a high heel on the "boot" of Italy. With the National Parks of the Gargano and the Murge, the marine reserves of the Tremiti Islands and Torre Guaceto, and many more protected areas, Puglia boasts a vast and diverse natural landscape.

### 1.1.1.3. Demography

The number of population in the Programme area counts just over 12 million people, with the majority of population living in Italian Programme area - around 88% and Croatian Programme area with only 12% of the total Programme area population.

The population density in the Programme area is 145,69 inhabitants per km<sup>2</sup>, but there are big differences between the Programme areas for each country. The population density of total Programme area is above the averages of EU28 (112inhabitant/km<sup>2</sup>) and Croatia (75,78 inhabitant/km<sup>2</sup>), but lower than Italian national average (197,30 inhabitants/km<sup>2</sup>).

Croatian Programme area with density of 54,37 inhabitant/km<sup>2</sup> area is under the national average, while the counties have big amplitudes. Ličko-senjska has only 9,51 inhabitant/km<sup>2</sup>, while Splitsko-dalmatinska has ten times more with 100,18 inhabitant/km<sup>2</sup>. Italian Programme area is relatively close to the national average with 190,37 inhabitant/km<sup>2</sup>. It also has some spots with very low density, Campobasso, in Molise has 77,40 inhabitant/km<sup>2</sup> compared to 1094,56 inhabitant/km<sup>2</sup> in Trieste, Friuli Venezia Giulia.

NUTS 3	No. of inhabitants	Surface area, km <sup>2</sup>	Density Inhabitant/km <sup>2</sup>
<b>Italy Programme Area</b>	10.925.027	57.221	190,93
Venezia	846.962	2.472,91	342,50
Padova	921.361	2.144,15	429,71
Rovigo	242.349	1.819,35	133,21
Udine	535.430	4.907,24	109,11
Gorizia	140.143	467,14	300,00
Trieste	232.601	212,51	1.094,56
Pordenone	310.811	2.275,42	136,60
Ferrara	353.481	2.635,12	134,14
Ravenna	384.761	1.859,44	206,92
Forli-Cesena	390.738	2.378,40	164,29
Rimini	321.769	864,88	372,04
Pesaro e Urbino	362.583	2.567,78	141,21
Ancona	473.865	1.963,22	241,37
Macerata	319.607	2.779,34	114,99
Ascoli Piceno	210.407	1.228,27	171,30
Fermo	174.857	862,77	202,67
Teramo	306.349	1.954,38	156,75
Pescara	314.661	1.230,33	255,75
Chieti	387.956	2.599,58	149,24
Campobasso	226.419	2.925,41	77,40
Foggia	626.072	7.007,54	89,34
Bari	1.247.303	3.862,88	322,89
Brindisi	400.801	1.861,12	215,36
Lecce	802.018	2.799,07	286,53

Barletta-Andria-Trani	391.723	1.542,95	253,88
ITALY TOTAL	59.433.744	301.230	197,30
<b>Croatia Programme Area</b>	<b>1.540.834</b>	<b>28.341</b>	<b>54,37</b>
Primorsko-goranska	296.195	3.588	82,55
Ličko-senjska	50.927	5.353	9,51
Zadarska	170.017	3.646	46,63
Šibensko-kninska	109.375	2.984	36,65
Splitsko-dalmatinska	454.798	4.540	100,18
Istarska	208.055	2.813	73,96
Dubrovačko-neretvanska	122.568	1.781	68,82
Karlovačka	128.899	3.636	35,45
CROATIA TOTAL	4.284.889	56.542	75,78

Table 2: Population, surface, density of the programme area.

Source: Croatian Bureau of Statistics and Italian National Institute of Statistics

In the time period from 2001 to 2011 overall there is an increase of population in the total Programme area, but that is the result of big changes in Italy. The country records a growth of 4,28%, while the Italian Programme area has increased by 3,89%. Some of the changes reported in the table below are due to the definition of two new provinces in Marche (Fermo) and Puglia (Barletta - Andria - Trani). Beside this consideration, most of the provinces record a stable increase of population. In Croatia the situation is completely reversed. The country recorded a negative trend of -3,44%, while the Croatia Programme area has a smaller decrease of 1,77%. From the 8 counties of Croatian Programme area, only 2 have a positive trend of population growth, Zadarska with 4,92% and Istarska with 0,83%. In the same time Karlovačka has a decrease of 9,09% which is higher than the national average. This is the result of a negative natural growth and migrations due to poor economic situation and historically high unemployment rate.

NUTS 3	Census 2001	Census 2011	Population change %
<b>Italy Programme Area</b>	10.516.332	10.925.027	3,89%
Venezia	809.586	846.962	4,62%
Padova	849.857	921.361	8,41%
Rovigo	242.538	242.349	-0,08%
Udine	518.840	535.430	3,20%
Gorizia	136.491	140.143	2,68%
Trieste	242.235	232.601	-3,98%
Pordenone	286.198	310.811	8,60%
Ferrara	344.323	353.481	2,66%
Ravenna	347.847	384.761	10,61%
Forli-Cesena	358.542	390.738	8,98%
Rimini	272.676	321.769	18,00%
Pesaro e Urbino	351.214	362.583	3,24%
Ancona	448.473	473.865	5,66%
Macerata	301.523	319.607	6,00%
Ascoli Piceno	369.371	210.407	-43,04%
Fermo	n.a.	174.857	
Teramo	287.411	306.349	6,59%
Pescara	295.481	314.661	6,49%
Chieti	382.076	387.956	1,54%
Campobasso	230.749	226.419	-1,88%

Foggia	690.992	626.072	-9,40%
Bari	1.559.662	1.247.303	-20,03%
Brindisi	402.422	400.801	-0,40%
Lecce	787.825	802.018	1,80%
Barletta-Andria-Trani	n.a.	391.723	
ITALY TOTAL	56.995.744	59.433.744	4,28%
<b>Croatia Programme Area</b>	<b>1.568.795</b>	<b>1.540.834</b>	<b>-1,78%</b>
Primorsko-goranska	305.505	296.195	-3,05%
Ličko-senjska	53.677	50.927	-5,12%
Zadarska	162.045	170.017	4,92%
Šibensko-kninska	112.891	109.375	-3,11%
Splitsko-dalmatinska	463.676	454.798	-1,91%
Istarska	206.344	208.055	0,83%
Dubrovačko-neretvanska	122.870	122.568	-0,25%
Karlovačka	141.787	128.899	-9,09%
CROATIA TOTAL	4.437.460	4.284.889	-3,44%

Table 3: Population, population change in programme area.

Source: Croatian Bureau of Statistics and Italian National Institute of Statistics

Natural growth is a big problem for the entire Programme area. In Italy every region has a negative natural growth, Veneto (-9,42%) and Puglia (-6,27%) have the lowest, while Molise (-36,28%) and Friuli Venezia Giulia (-33,85%) have more than twice the national rate. In Croatia numbers are more concerning because counties like Ličko-senjska (-52,49%) and Karlovačka (-43,27%) considerably exceeds the national rate of -20,58%.

NUTS 2	Live births	Death	Natural growth
<b>Italy Programme Area</b>	<b>148.810</b>	<b>179.101</b>	<b>-16,91%</b>
Veneto	41.973	46.337	-9,42%
Friuli Venezia Giulia	9.408	14.222	-33,85%
Emilia Romagna	38.057	47.763	-20,32%
Marche	12.633	16.870	-25,12%
Abruzzo	10.791	14.415	-25,14%
Molise	2.269	3.561	-36,28%
Puglia	33.679	35.933	-6,27%
ITALY TOTAL	514.308	600.744	-14,39%
<b>NUTS 3</b>			
<b>Croatia Programme Area</b>	<b>13.851</b>	<b>17.441</b>	<b>-20,58%</b>
Primorsko-goranska	2.429	3.440	-29,39%
Ličko-senjska	400	842	-52,49%
Zadarska	1.694	1.787	-5,20%
Šibensko-kninska	890	1.452	-38,71%
Splitsko-dalmatinska	4.326	4.590	-5,75%
Istarska	1.808	2.167	-16,57%
Dubrovačko-neretvanska	1.255	1.314	-4,49%
Karlovačka	1.049	1.849	-43,27%
CROATIA TOTAL	40.083	50.386	-20,45%

Table 4: Natural growth

Source: Croatian Bureau of Statistics and Italian National Institute of Statistics, 2013

### 1.1.1.4. Smart Growth

European economy is facing lower growth than the global competitors, and therefore public policies are put in place to increase competitiveness of the EU. Through the flagship initiatives, EU is investing in the following thematic objectives:

1. Strengthening research, technological development and innovation.
2. Enhancing access to, and use and quality of, information and communication technologies.
3. Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector and fisheries and aquaculture sector.

In the scope of cross-border cooperation, strong focus is given to the field of ICT and research and innovation as well as promotion of development of joint smart specialisation approaches and partnerships among educational institutions, and measures improving competitiveness of SMEs.

Therefore, this chapter describes and analyses situation in the Programme Area concerning elements of the Smart Growth.

#### General Economic Overview

Economy of the programme area is still affected by the economic crisis from 2008 which results in low level of competition in international markets and decrease of GDP growth rate.

Years	2008	2009	2010	2011
<b>EU28</b>	<b>23,700</b>	<b>22,600</b>	<b>23,300</b>	<b>23,300</b>
<b>ITALY</b>	<b>24,700</b>	<b>23,200</b>	<b>23,500</b>	<b>23,500</b>
Venezia	29,000	28,400	28,600	29,200
Padova	31,200	29,100	30,600	32,000
Rovigo	24,200	23,800	25,400	25,800
Pordenone	29,500	26,900	29,300	30,200
Udine	29,500	28,100	27,600	27,600
Gorizia	25,600	24,700	27,800	28,000
Trieste	33,900	32,200	33,500	34,500
Ferrara	27,300	24,400	24,100	25,000
Ravenna	30,600	28,600	28,700	30,800
Forli-Cesena	31,800	31,300	32,300	32,700
Rimini	32,000	30,400	28,100	30,300
Pesaro e Urbino	26,500	25,500	27,100	27,600
Ancona	30,300	28,800	28,700	28,900
Macerata	24,400	24,100	24,200	24,600
Ascoli Piceno	22,800	22,600	22,000	22,000
Fermo	24,200	23,400	23,100	22,900
Teramo	22,000	21,900	22,300	22,400



Pescara	22,600	22,300	21,700	22,400
Chieti	22,400	20,900	21,800	22,900
Campobasso	20,600	20,100	19,900	19,800
Brindisi	15,100	14,800	16,00	16,700
Lecce	15,800	15,600	15,700	15,700
Foggia	15,00	14,800	14,700	14,700
Bari	20,100	19,500	19,700	19,900
Barletta-Andria-Trani	14,900	14,200	14,500	14,600
<b>Italy Programme Area Avg</b>	<b>24,852</b>	<b>23,856</b>	<b>24,296</b>	<b>24,848</b>
<b>CROATIA</b>	<b>10,682</b>	<b>10,111</b>	<b>10,057</b>	<b>10,325</b>
Primorsko-goranska	12,680	12,305	12,343	12,724
Ličko-senjska	9,725	8,707	8,278	8,081
Zadarska	9,051	8,338	8,182	9,302
Šibensko-kninska	8,156	7,239	7,887	7,930
Splitsko-dalmatinska	8,422	7,952	8,072	8,072
Istarska	13,195	12,810	12,897	12,991
Dubrovačko-neretvanska	10,601	9,990	10,457	9,807
Karlovačka	8,451	7,634	7,404	7,709
<b>Croatia Programme area Avg</b>	<b>10,035</b>	<b>9,372</b>	<b>9,440</b>	<b>9,577</b>
<b>Programme area ITA-HR Avg</b>	<b>21,260</b>	<b>20,345</b>	<b>20,695</b>	<b>21,146</b>

Table 5: GDP per capita NUTS 3 regions  
Source: Eurostat

GDP per capita of the Programme territory is at 67% of the EU28, with Croatian side being at 42% of Italian territory. Both in Italy and Croatia, northern regions / counties are performing better - Emilia Romagna, Veneto and Friuli Venezia Giulia and Istarska and Primorsko-goranska.

The *Global Competitiveness Report's* competitiveness ranking is based on the Global Competitiveness Index (GCI), which was introduced by the World Economic Forum in 2004.

Defining competitiveness as the set of institutions, policies and factors that determine the level of productivity of a country and SMEs, GCI scores are calculated by drawing together country-level data covering 12 categories – the pillars of competitiveness – that together make up a comprehensive picture of a country's competitiveness. The 12 pillars are: institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication and innovation.

In the assessment of Smart Growth Pillars (GCI 2014) in Italy and Croatia, situation is the following:

Country	SMART GROWTH PILLARS									
	Smart growth		Enterprise environment		Digital agenda		Innovative Europe		Education and training	
	Rank (out of 28)	Score (1-7)	Rank (out of 28)	Score (1-7)	Rank (out of 28)	Score (1-7)	Rank (out of 28)	Score (1-7)	Rank (out of 28)	Score (1-7)
Austria	8	5.04	9	4.32	10	5.11	6	5.29	7	5.42
Belgium	9	5.02	7	4.45	11	4.73	7	5.20	3	5.71
Bulgaria	27	3.64	24	3.60	25	3.85	27	3.14	27	3.98
Croatia	24	3.72	27	3.34	22	3.99	26	3.15	25	4.39
Cyprus	19	4.18	14	4.07	24	3.88	18	3.82	14	4.96
Czech Republic	18	4.23	16	3.82	17	4.31	17	4.03	21	4.76
Denmark	6	5.23	11	4.24	5	5.59	3	5.70	8	5.41
Estonia	12	4.73	12	4.21	8	5.30	13	4.28	12	5.12
Finland	1	5.78	2	4.83	1	6.15	1	6.06	1	6.09
France	10	4.91	10	4.26	9	5.23	10	4.94	10	5.22
Germany	4	5.32	6	4.61	7	5.40	4	5.60	4	5.68
Greece	25	3.70	28	3.19	26	3.81	23	3.32	23	4.50
Hungary	23	3.84	26	3.49	21	4.03	22	3.37	24	4.47
Ireland	11	4.80	8	4.38	14	4.69	11	4.60	5	5.52
Italy	20	4.17	18	3.80	20	4.04	16	4.10	22	4.74
Latvia	21	4.02	15	3.83	19	4.24	24	3.24	20	4.76
Lithuania	16	4.25	17	3.81	15	4.63	20	3.65	16	4.90
Luxembourg	7	5.06	4	4.75	6	5.51	8	5.18	19	4.78
Malta	15	4.37	13	4.11	13	4.70	19	3.75	15	4.94
Netherlands	3	5.55	3	4.80	3	6.06	5	5.51	2	5.81
Poland	22	3.99	19	3.72	23	3.98	21	3.43	18	4.85
Portugal	14	4.41	20	3.70	16	4.50	12	4.42	13	5.05
Romania	28	3.51	23	3.61	28	3.61	28	2.88	28	3.95
Slovak Republic	26	3.69	22	3.63	27	3.71	25	3.22	26	4.20
Slovenia	17	4.24	25	3.53	18	4.30	15	4.25	17	4.88
Spain	13	4.45	21	3.66	12	4.73	14	4.27	11	5.13
Sweden	2	5.60	1	4.95	2	6.07	2	5.89	6	5.49
United Kingdom	5	5.25	5	4.65	4	5.82	9	5.12	9	5.40
EU28		4.53		4.05		4.71		4.34		5.00

Table 6: Smart Growth Pillars

Source: Regional Innovation Scoreboard Report, DG Enterprise, 2013.

It is clearly visible that both countries are not performing well in terms of key indicators: Croatia is at the bottom of the list with specific problems in providing healthy investment and business environment, support to innovation and ensuring qualified and mobile labour force. Italy is also coping with matching of education and labour market needs, while performing better in categories, according to EU ranking, on innovation, digital agenda and business environment. In general, Italy performs better than Croatia in all categories of the report.

### **Research, Development and Innovation**

Research and Development expenditure in both countries lag behind the EU28 (2.07%) with Italy at 1.27% and with Croatia at 0.75%.

Over the past decade, Croatia has one of the lowest R&D expenditures in the EU (0.75% of GDP in 2012), with a high proportion invested from public sources (0.41%) and only 0.34% of GDP from the business sector. GERD data on regional / county level is not available but due to the fact that most R&D institutions are based in Continental Croatia, we can conclude that R&D expenditure in Adriatic Croatia is even lower than the national average of 0.75%.

Although the overall situation in Italy is somewhat better, there are significant differences between Italian regions in the Programme territory - with Friuli Venezia Giulia (1.50%) and Emilia Romagna (1.40%) investing the most, and Molise (0.50%) and Puglia (0.70%) the least.

Years	R&D expenditure in public sector				R&D expenditure in business sector			
	2007	2009	2011	2013	2007	2009	2011	2013
EU28								
ITALY	0.38	0.4	0.4	0.33	0.31	0.33	0.34	0.24
Veneto	0.25	0.29	0.3	0.24	0.3	0.39	0.4	0.28
Friuli Venezia Giulia	0.45	0.51	0.51	0.38	0.4	0.44	0.44	0.34
Emilia Romagna	0.36	0.47	0.47	0.3	0.46	0.49	0.49	0.39
Marche	0.28	0.28	0.29	0.18	0.28	0.33	0.34	0.23
Abruzzo	0.41	0.43	0.43	0.38	0.39	0.39	0.38	0.24
Molise	0.35	0.32	0.32	0.29	0.09	0.13	0.16	0.05
Puglia	0.39	0.45	0.45	0.35	0.22	0.23	0.24	0.16
CROATIA	0.28	0.3	0.28	0.21	0.28	0.28	0.38	0.14
Adriatic Croatia	0.17	0.19	0.17	0.13	0.23	0.22	0.18	0.07
Continental Croatia	0.34	0.36	0.34	0.24	0.31	0.31	0.26	0.17

Table 7: Performance indicator for regions (min 0.0 - max 1.0).  
Source: Regional innovation Scoreboard, DG Enterprise 2013

In terms of patent applications to the European Patent Office as an indicator of R&D competitiveness, Italy is much more advanced than Croatia, but both are lagging behind EU28:

EU28	106
ITALY	63
CROATIA	3.4

Table 8: Number of patent applications at EPO per mil inhabitants, 2011.  
Source: Eurostat, 2012.

There is evident lack of interest and know-how for registration of patents in Croatian economy, especially within medium and small enterprises. It is caused by lack of R&D and innovation activities in private sector on one side, and lack of understanding of intellectual property rights as one of the prerequisites for competitiveness and internationalisation on the other. Another challenge is adoption of Croatian entrepreneurs to doing business in common European market – namely, applications to National Institute for Intellectual Property is measured in hundreds while only 10-20 are applied at EPO every year.

Italian Adriatic regions measure decline in number of patent applications to EPO in the past 5 years, which is also a result of the continuing economic crisis. Similar to other

economic indicators, northern regions are performing better – Emilia Romagna 404 patent applications and Veneto 350, while Molise only had one patent application.

	EPO patent applications	Employment in knowledge intensive activities
Years	2013	2013
EU28		
ITALY	0.24	0.49
Veneto	0.35	0.54
Friuli Venezia Giulia	0.38	0.55
Emilia Romagna	0.40	0.55
Marche	0.29	0.51
Abruzzo	0.21	0.52
Molise	0.04	0.52
Puglia	0.16	0.51
CROATIA	0.10	0.38
Adriatic Croatia	0.10	0.48
Continental Croatia	0.10	0.33

Table 9: Table: Performance indicator for regions (min 0.0 - max 1.0).

Source: Regional innovation Scoreboard, DG Enterprise 2013.

In terms of institutional setup, Italy and Croatia have extensive network of public science and research institutions. There is excellence in basic research and participation in scientific projects on EU level, but weak connection to real sector – in particular SMEs and applied research in support of regional competitiveness.

In Adriatic Croatia there are 5 Universities: Pula, Rijeka, Zadar, Split and Dubrovnik all having R&D activities mostly focused on tourism, fisheries, nature and sea protection, food production (including mariculture). Public institutes in the programme area also play an important role in R&D activities: Institute for agriculture and tourism in Poreč, Croatian Hydrographic Institute in Split, Institute for Oceanography and Fisheries in Split, Institute for Adriatic crops and karst reclamation in Split, Institute for marine and coastal research in Dubrovnik. In the field of technology oriented R&D, there are number of technological centres and parks in urban centres (Rijeka, Split, Zadar). Karlovačka county as only one NUTS 3 level region from Continental Croatia (NUTS 2) eligible in this program has a University of Applied Science with 8 professional studies (Hunting and environmental protection, Mechatronics, Food technology, Nursing, Safety and security, Engineering, Textile technology and Catering) and 3 postgraduate studies (Business management, Safety and security and Engineering).

Italian Adriatic Regions host 18 public universities each having research centres and centres of knowledge. In addition there is an extensive network of public and private science and innovation institutions such as technological parks, research organisations, research labs and innovation centres. R&D activities are focused on wide range of sectors, but most important being environment, economy of sea, industrial greening, transport, renewable energy, and food production related to sea and biotechnology.

While characterized by a wide spread research system as well as by some technological *spill-overs*, the model offered has demonstrated as well some limits, especially in relation to the creation of efficient synergies/ network between clusters and SMEs, research

centres and universities sometimes not able to fully exploit its potentials by creating an appropriate critical mass.

### ***Entrepreneurship and Key Industries***

#### **Tourism**

Tourism is one of the most important industries in the whole Adriatic area, including Italy - Croatia programme territory. It is focused on coastal touristic offer, maritime/nautical tourism, cultural assets (many being UNESCO heritage) and attractions around big cities, and in the last 10 years – rural and agro tourism in hinterland. In Croatia, tourism as a sector contributes to national GDP with 14.4%, registers 12,209 companies in tourism and employs 83,488 persons. In 2011, income from tourism was 6,6 billion euro.

In Italy, tourism as sector contributes to national GDP with 10.3%, employs around 2.6 million persons (11.6% of the total available labour force)<sup>1</sup>.

Years	2010		2011		2012	
	arrivals	overnights	arrivals	overnights	arrivals	overnights
EU28	765.636.895	2.395.948.566	813.809.966	2.476.053.672	854.177.710	2.579.287.539
ITALY	98.813.845	375.542.550	103.723.869	386.894.732	103.733.157	380.711.483
Veneto	14.583.515	60.820.311	15.765.623	63.401.304	15.818.490	62.352.831
Friuli Venezia Giulia	1.995.632	8.665.896	2.085.030	8.949.565	2.093.070	8.802.721
Emilia Romagna	8.844.219	37.674.889	9.258.418	38.619.332	9.097.401	37.383.182
Marche	2.151.001	10.792.486	2.260.569	11.024.248	2.220.738	10.925.958
Abruzzo	1.485.120	7.306.951	1.580.898	7.422.437	1.578.410	7.252.826
Molise	183.559	559.245	209.051	680.523	178.005	540.050
Puglia	3.112.906	12.982.987	3.230.905	13.505.731	3.225.974	13.291.863
CROATIA	7.919.729	37.009.182	8.520.950	39.250.790	11.543.653	62.183.925
Primorsko-goranska	2.151.118	10.938.291	2.360.214	11.741.692	2.353.404	11.974.337
Ličko-senjska	403.960	1.618.941	425.675	1.697.107	47.119	1.824.036
Zadarska	971.092	6.223.824	1.022.464	6.481.067	1.074.192	6.783.072
Šibensko-kninska	634.614	3.783.823	650.059	3.975.122	657.371	4.139.536
Splitsko-dalmatinska	1.637.656	9.364.032	1.777.700	10.250.215	1.834.876	10.517.880
Istarska	2.627.918	17.731.881	2.895.686	19.095.401	2.985.042	19.877.368
Dubrovačko-neretvanska	982.619	4.538.026	1.046.826	4.775.161	1.122.420	5.188.091
Karlovačka	163.754	282.083	165.450	269.291	186.517	303.522

Table 10: No. of tourists and overnights (2010 – 2012).

Source: Eurostat, 2013.

<sup>1</sup><http://www.enit.it/en/studies-and-research.html>

In Italy, regions of Veneto and Emilia Romagna attract biggest number of tourists while in Croatia those are Istarska and Primorsko-goranska counties.

Programme area records increase of tourist arrivals and overnights in the last 3 years. That is partially caused by political and security instabilities in some other Mediterranean destinations (northern Africa), and therefore it is important to keep attractiveness of Adriatic as destination in the future years.

Main challenges in the field of tourism are high seasonality, especially outside cities, and lack of integrated destination management. Additionally, investment in integrated destination management, prolongation of touristic season and diversification of touristic offer can contribute more to the further development of sustainable tourism as a key concept on Adriatic including further development of rural tourism. Better infrastructure for nautical tourism, preserved natural attractions, joint cultural and thematic itineraries and better connectivity on Adriatic Sea are crucial for further attractiveness of the Adriatic Region.

### **Fisheries and Aquaculture**

**Fisheries** is another important economic activity on Adriatic, both in Italy and Croatia. Although having a small contribution to national GDPs (Italy 0.1%, Croatia 0.2 - 0.7%) it has a strong role in regional economies in terms of employment and associated economic activities such as manufacturing and reparation of boats, transport and logistics for fishing and port activities. Fisheries also have a significant role in exports of the two countries.

	Catches	No. of boats	Gross tonnage
YEAR	2011	2011	2011
EU28			
ITALY	210,324	13,064	170,000
Adriatic Italy	112,249	4,981	
Veneto	19,625	722	
Friuli Venezia Giulia	3,676	404	
Emilia Romagna	17,635	741	
Marche	25,360	870	
Abruzzo	11,449	548	
Molise	2,199	91	
Puglia	32,305	1,605	
CROATIA	70,535	3,535	53,452
Adriatic Croatia	70,535	3,535	

Table 11: Catches, fishing fleet characteristics.

Source: Mipaaf-Irepa, Itastat, Italy; National Strategy for Development of Fisheries 2013, Croatia

In general, data related to biological evaluation and fisheries monitoring are based on resolution 31/2007/2 of the General Fishery Commission for the Mediterranean (GFCM) that has mapped the Mediterranean Sea into 30 Geographic Sub Areas. The cooperation area is fully covered by GSA 17 (Northern Adriatic) and 18 (Southern Adriatic). In relation to GSA 17 most of the data are collected throughout a long lasting cooperation

between the University of Bologna, Fano branch and the the Institute of Oceanography and Fisheries in Split.

In Croatia, 443 fisherman are organised through the 18 fishery cooperatives. Interest for cooperation is increasing and several cooperatives demonstrate capacities for becoming organisations of producers which are recognised by EU legislative. There are 14.000 persons permanently employed in fisheries and another 25.000 employed are seasonally.

In Italy, there is an estimation that 28.000 persons are permanently employed in fisheries. Around 50% are partners of cooperatives while less than 10% are individual entrepreneurs. 40% are estimated as employees<sup>2</sup>.

Biggest challenges in both countries are: small-scale boats often in need for modernisation also in relation to energy efficiency and cleaner vessels, inadequate port infrastructure and logistics, and lack of clusters and networks. There is a need for integrated management in the field of fisheries, especially concerning sustainable growth and protection of Adriatic ecosystem.

**Aquaculture** sector is becoming more important economic activity, contributing to the objectives of the EU Blue Growth. Croatia has constant production in the aquaculture around 12.000 – 13.000 annually, with 14.000 tons produced in 2012 out of which 70% represents mariculture (sea fish and bivalve). Shift has happened, since 2006 due to restriction of tuna fishing, from decrease in tuna production to increase of other marine fish species. In 2012, Croatia registers 53 fresh water fish plants and 321 marine fish and shellfish plants.

According to the data from API (Italian fish farmers association), in 2009 were identified in the national territory 357 plants dedicated to aquaculture production of trout, mostly concentrated in Veneto and Friuli Venezia Giulia regions, which together cover more than 40% of domestic plants. The production of bass, sea bream and other marine species has been managed mainly with ground systems, especially in Puglia, Veneto and Friuli Venezia Giulia. Plants eels represent a minority of plants in aquaculture.

### **Shipbuilding**

Shipbuilding is one of the most complex industrial sectors, and as such, needs special attention in economic policy making. Due to global competitiveness, EU is facing negative trend in shipbuilding in the last 30 years with 2/3 of shipyards closed and only 25% of labour force still working in shipbuilding. Therefore, EU brought relevant strategy “EU Leader SHIP 2015” in order to increase competitiveness of European shipbuilding through innovation and specialization.

Croatian shipbuilding is a significant economic activity with 2-5% employment, 1-2% share of GDP and 10-15% in exports in the last 10 years. However, Croatian shipyards have been incurring losses throughout the last 20 years, and as such have been heavily subsidized by the state. In the process of EU accession, negotiations on state aid concerning shipbuilding were very demanding. Today, all 7 big shipyards are receiving state aid for recovery and restructuring with strict conditions on privatization and competition rules. Although there is a significant tradition, experience and know-how, future of those shipyards is fully dependent on their ability to modernize, specialize and apply hi-tech innovation.

Over the last 20 years, number of medium and small companies in shipbuilding increased. They are focused on small vessels – fishery boats, sailing boats and small,

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<sup>2</sup>[http://www.mit.gov.it/mit/mop\\_all.php?p\\_id=10993](http://www.mit.gov.it/mit/mop_all.php?p_id=10993)

rubber boats etc. There are 14 medium-sized companies and 352 small-size companies. Although they do not have significant influence on overall economic trends, they are extremely important for local communities, regional economies and their contribution to local employment.

On the Italian Adriatic side shipyard sector is as well considered important and traditional, hosting 8 active places of production of cruise, merchant and military ship located along the programme area therefore excluding yacht sector.

Shipyard	NUTS III	Ships produced (2012)	Ships under production (2012)
MANCINI	Venezia	4	0
O.L.M.A.	Teramo	1	0
VITTORIA	Rovigo	1	5
VISENTINI	Rovigo	0	1
ROSETTI MARINO	Ravenna	3	4
FINCANTIERI Marghera	Venezia	1	1
FINCANTIERI Monfalcone	Gorizia	1	3
FINCANTIERI Ancona	Ancona	0	11

Table 12: Ship production Italy

Source: Report on shipyard activities 2012, Italian Ministry of Infrastructure

Whilst the world crisis has severely affected the whole Italian sector, Northern Adriatic shipyards have managed to cope with the crisis based on the high level of specialisation and export oriented approach. This could be further enhanced strengthening the potentials of green shipbuilding based on the exploitation of new materials and emerging technologies.

Shipyard	NUTS III	Ships produced (2012)	Ships under production (2013)
3. Maj	Primorsko-goranska county	18	n/a
Viktor Lenac	Primorsko-goranska county	0	n/a
Uljanik	Primorsko-goranska county	3	n/a
Brodotrogir	Splitsko-dalmatinska county	1	4
Brodosplit	Splitsko-dalmatinska county	0	n/a

Table 13: Ship production Croatia

Source: Croatian Shipbuilding Corporation

### **SMEs as motors of growth**

SMEs<sup>3</sup> in Croatia represent 99,7% of all companies with predominantly micro<sup>4</sup> enterprises 90,7%. In 2013, SMEs employed 64,2% of total labour force. SME sector, as

<sup>3</sup>SME observatory in Croatia, 2013.

<sup>4</sup>Micro, small and medium-sized enterprises are defined according to their staff headcount and turnover or annual balance-sheet total. A microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million.



big industries, was strongly affected by the economic crisis where total number of SMEs has decreased from 2010 till end of 2011 for 4.7% losing 28.199 of jobs. Average number of employed per SME in Croatia is 5 with average of 2 in micro enterprises, 20 in small and 97 in medium. Data on SMEs in Croatia are also showing that 94,4% micro enterprises have turnover less than 500.000 EUR, with 3% with turnover between 500.000 EUR and 1 million EUR, and 1,4% with turnover between 1 and 2 million EUR (0,57% 2-5 million EUR; 0,16%, > 5 million EUR.

Data available through Croatian Financial Agency are showing that SME sector had become more important for export representing 44% of total export in 2012.

SME	Share in total export	Share in total export in SME sector
Micro	8%	17.7%
Small	13%	30.5%
Medium	23%	51.8%

Table 14: Export and SMEs in Croatia.

Source: SME observatory 2013, Ministry of entrepreneurship and crafts

Biggest weakness of Croatian SME sector is insufficient competitiveness caused by lack of smart specialization, innovation, investment in R&D and cooperation with scientific sector but also - horizontally – with peer SMEs and big industries<sup>5</sup>.

SMEs sector is as well the pillar of Italian economy. 94.8% of the total number of non financial enterprises employ less than 9 people, 4.7% between 10 and 49 while only 0.6% has a number of employees that amount to 50 and more people<sup>6</sup>. SMEs employ 79.84% of the total Italian labour force<sup>7</sup>.

Data available through CNA are showing that SME sector had become more important for export representing 50% of total export in 2012.

SME	Share in total export	Share in total export in SME sector
Micro	2.6%	5.2%
Small	16.4%	32.8%
Medium	31%	62%

Table 15: Export and SMEs in Italy.

Source: Centro Studi CNA 2012

## ICT

Years	2009	2010	2011	2012	2013	% 2009/2013	Δ
EU28	57%	61%	67%	72%	76%	19.00%	
ITALY	39%	49%	52%	55%	68%	29.00%	
Veneto	39%	54%	55%	60%	74%	35.00%	

<sup>5</sup>source: 2013 SBA Fact Sheet Croatia

<sup>6</sup>source: Italian Partnership Agreement

<sup>7</sup>[http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/index_en.htm)

Friuli Venezia Giulia	43%	51%	56%	59%	70%	27.00%
Emilia Romagna	-	-	-	60%	75%	-
Marche	-	-	-	58%	72%	-
Abruzzo	37%	49%	52%	51%	69%	32.00%
Molise	26%	34%	43%	46%	59%	33.00%
Puglia	29%	41%	37%	49%	60%	31.00%
CROATIA	39%	49%	56%	60%	64%	25.00%
Adriatic Croatia	41%	51%	55%	58%	69%	28%

Table 16: Table: Number of households with broadband (% of households with at least one member aged 16 to 74). Source: Eurostat 2014.

In the last five years the density of broadband Internet in programme area is increasing rapidly. In Croatia, there are still rural areas and small islands with so called grey and black spots unable to access high speed Internet.

Since 2007, Italian access providers Fastweb, Telecom Italia, Vodafone and Wind in an initiative called fibre for Italy, with the aim of creating a countrywide fibre-to-the-home network in Italy. By the end of December 2010, the total number of fibre-to-the-home enabled homes had passed 2.5 million, with more than 348,000 subscribers.

Internet coverage in both Italy and Croatia is under the EU28 (76%). In 2013 Italy recorded coverage of 68%, while Croatia had 64%. Though trailing behind the EU28 a, both countries have a bigger growing rate than EU (19%) in the past five years. Italy's coverage has grown by 29%, and Croatia's by 25%.

ICT sector in Croatia contributes to GDP with 4.2%, employs 29,648 people and has annual revenue of 1,5 billion euro. It is one of the rare growing industries in Croatian economy.

In Italy ICT sector revenue amounts to 65,2 billion euro. It contributes to GDP with 4.8%, quite lower than the average EU(28) value of 6.8%. The trend is negative<sup>8</sup>.

ICT sector can have even stronger role through crosscutting in the field of SME innovation and R&D, e-business, improvement in access to services (e-services), and access to information and education in remote/rural areas. That way, ICT sector can contribute in smart, sustainable and inclusive growth<sup>9</sup>.

### **Description of main industries – their trends and challenges in Italian programme area Regions**

Although the **Italian Adriatic regions** core economy is based on small and middle size enterprises there are several industrial districts where a multitude of highly specialized enterprises are concentrated. These districts are especially - but not only - located in the North-East part and focus on several kind of products (cured ham, knives and furniture in **Friuli Venezia Giulia**, metallurgical and chemical plants, glass handicraft, and textile in **Veneto**, agro food, mechanical and automotive and ceramic in **Emilia Romagna**).

In **Marche** region small craft workshops have evolved into "specialised" industrial areas, which are still profitable: footwear and leather goods in a large area straddling the

<sup>8</sup>Source: [http://www.assinform.it/aree\\_sx/informazioni/comunicati/cs\\_dati\\_ict\\_2014.htm](http://www.assinform.it/aree_sx/informazioni/comunicati/cs_dati_ict_2014.htm)

<sup>9</sup>Source: Invest in Croatia Report, Agency for investment and competitiveness, 2013

provinces of Macerata and Fermo, household appliances and textile industry in the province of Ancona, in which the main engineering companies are also to be found (including ship building, petrochemicals and paper, as well as consumer durables).

**Abruzzo's** industrial sector expanded rapidly, especially in mechanical engineering, transportation equipment and telecommunications. The structure of production in the region reflects the transformation of the economy from agriculture to industry and services. Although industry has developed strongly, it retains weak points due to the existence of only a few large businesses alongside a huge fabric of small and medium-sized businesses.

In **Molise** the industrial sector is dominated by the construction industry with small and medium-sized farms spread widely throughout the region. Another important industry is food processing: pasta, meat, milk products, oil and wine are the traditional products of the region.

In **Puglia**, alongside highly capital-intensive large-scale plants – such as Eni (petrochemicals) in Brindisi and Manfredonia – a network of small and medium-sized firms has gradually expanded. Highly specialised areas have developed, producing on a scale not only of domestic but also of international significance: textiles, wood and furniture, engineering, rubber, wood and furniture and computer software.

Most of the sectors do suffer from the economic crisis, in particularly those that are largely based on internal market demand. This is evident from the decrease in the number of companies and the reductions of employment levels. Those that are operating in the international markets (especially if focusing on the non-European markets) are better positioned (agro food). In this sense, in order to gain competitiveness, products should exploit competitive advantage given by tradition and certification.

Additional critical elements are rooted into trade finance as enterprises (especially SMEs) rely heavily on bank-financed trade credits to support their export and import activities. Following the crisis, trade finance has fallen dramatically thus preventing even creditworthy borrowers from securing adequate funds to finance their ordinary export and import activities. As a result, the ability to recover from the crisis has been seriously compromised.

### **Description of main industries – their trends and challenges in Croatian programme area Counties**

Because of its extremely favourable location at the crossroads of land and sea routes, **Primorsko-goranska County** became an important maritime center. The largest share of GVA is realized in the sectors of manufacturing industry (26.5%) and in that segment is the second best county in national terms. In the Croatian programme area it has the largest share of GVA with 8.5%. By the number of entrepreneurs is at the very top with 8.3%, as it is per the number of employees with 7.2%. Trade and tourism is also very important activity and achieves 22.5% of GVA. Agriculture, forestry and fishing is the least developed activity.

**Istarska County** alongside Primorsko-goranska County achieved the highest percentage of GVA of Croatia with 8.3%. Main activities are manufacturing with 26.6% GVA of the County, trade with 25.6% and construction with 7.8%. By the number of enterprises (8.2%) and employees (5.2%) it is at the very top and is one of the most successful counties in the programme area in Croatia.

Although **Ličko-senjska County** is the intersection of three major traffic routes – to Zagreb, Rijeka and Split, its role in the total Croatian GVA with 0.9% is the lowest in the state. Construction and trade with 18.1% are the most important branches of the

economy, but in the share of the state still constitute a very small proportion. According to the number of businesses (0.6%) and employees in them (0.5%) is the second lowest in national terms.

Economy of **Zadarska County** is based on trade and tourism sector which makes 19% of Croatia's GVA in that sector. The real estate business with 20.0% should also be mentioned and is also connected with tourism. Agriculture, forestry and fishing, manufacturing and construction are also important sectors of the county. According to data from 2012, 3.2% of Croatia's enterprises and 2.3% of its employees are located in Zadarska County.

Given that they are neighbouring counties, it is not surprising that **Šibensko-kninska County** has a similar economic profile as well as Zadarska. The economy is centred on trade and tourism, which accounts for 19.1% of GVA in the county, and real estate business with 19.6% also as a result of tourism. Manufacturing and construction are also a very important activity. According to the number of enterprises it contains 1.9% enterprises and 1.3% of employees of Croatia.

In **Splitsko-dalmatinska County** trade and tourism is also the most important activity and makes 21.3% GVA of the county, and it is followed by manufacturing with 12.6%. The importance of these activities is very large because at the national level they represent a high 9.5% in trade and 11.6% in construction by which they come immediately to second place behind the Zagreb County. The number of enterprises in SDC is also very important and it is a county with the largest number of companies (11.3%) and employees (8.7%) in the program area of Croatia.

The economy of the **Dubrovačko-neretvanska County** is highly dependent on trade and tourism that makes 31.9% GVA, which is logical considering the tourism potential of this region. In addition to tourism, leading activities are construction with 11.6% and agriculture, forestry and fisheries with 10.4% of GVA. County has 4,444 companies which make 3.1% of Croatia's enterprises, with 2.3% of employed.

Economy of **Karlovačka County** with Ličko-senjska and Šibensko-kninska counties achieved the lowest GVA at a rate of 2.2%. Unlike the other counties, although making substantial GVA of 14%, its main activity is not trade and tourism, but the manufacturing industry with a high 25%. According to the number of enterprises it has a modest percentage of 1.7% and 1.8% of employees of Croatia.

### 1.1.1.5. Sustainable growth

In order to achieve set targets of Europe 20/20/20 each Member State needs to invest additional resources in order to develop both strategies and legislative frameworks that can provide path towards meeting targets but also investing in specific project that will produce results and measure its progress. The ESI Funds can contribute to this and accelerate the implementation of EU legislation on renewable energy and energy efficiency, in particular the Energy Performance of Buildings Directive, the Energy Services Directive, the Renewable Energy Directive and the Strategic Energy Technology Plan. EU Directive on Energy Efficiency adopted in 2012 brings forward legally binding measures to step up Member States' efforts to use energy more efficiently at all stages of the energy chain: from production over transformation and distribution networks to final consumption. Measures include the legal obligation to establish energy efficiency schemes or policy measures in all Member States. These will drive energy efficiency improvements in households, industries and transport sectors.

Other measures include an exemplary role to be played by the public sector and a right for consumers to be able to monitor energy consumption closely.

Under its priority "Sustainable growth" (promoting a more resource-efficient, greener and more competitive economy) the Europe 2020 strategy pursues the Flagship Initiative "Resource- efficient Europe".

Indicator	Italy	Croatia
Deforestation average annual % 2000–10	-0.90	-0.19
Nationally protected areas Terrestrial and marine areas % of total territorial area 2010	15.9	9.5
Internal renewable freshwater resources Per capita cubic meters 2011	3,005	8,562
Access to improved water source % of total population 2010	100	99
Access to improved sanitation facilities % of total population 2010	...	99
Urban population average annual % growth 1990–2011	0.7	0.2
Particulate matter concentration urban-population- weighted PM10 micrograms per cubic meter 2010	21	22
Carbon dioxide emissions million metric tons 2009	400.8	21.5
Energy use Per capita kilograms of oil equivalent 2010	2,815	1,932
Electricity production billion kilowatt hours 2010	298.8	14.0

Table 17: Indicators on Environmental sustainability per country.

Source: <http://databank.worldbank.org/data/download/WDI-2013-ebook.pdf>

In order to promote growth and reduce poverty, sustainability of environment is crucial. Deforestation, loss of biologically diverse habitat, depletion of water resources, pollution, urbanization, and ever increasing demand for energy production are some of the factors that must be considered in shaping different strategies and programmes such as this one.

Indicator	Italy	Croatia
GHG in Thousands of tonnes CO2 eq.	404.444 (2011)	20.715 (2011)
RE in %	13,5 (2012)	16,8 (2012)
PEC in Million TOE (2012)	155,2	7,6
Energy Intensity in kg of oil equivalent per 1000 EUR (2012)	117,3	224,9
Road Share of Inland Freight Transport in % of tonnes km transported (2011)	87,8	74
Wind Energy Production in TOE (2012)	1.152,8	28,3
PV Energy Production in TOE (2012)	1.621,8	0,2
Motorisation Rate in Cars per 1000 inhabitants	610 (2011 data)	345 (2011 data)

Table 18: Low Carbon Economy context indicators.

Source: Eurostat

Considering energy intensity and efficiency both countries are facing similar challenges, either in the sense of becoming more efficient or in the sense of transforming their economic structure without becoming energy demanding. Both Italy and Croatia are road-transport dependent and water transport plays a relatively unimportant role

### **Renewable Energy Sources**

Both countries have positive trend in usage of renewable energy sources potential. When comparing years, Italy had an increase of 4.20% from 2009 to 2012 and for Croatia the increase was 3.70% with both countries above EU28 of 2.20%. However even when it comes to the large share of RES in electricity production in Croatia it must be noted that majority of that percentage is attributable to Croatia's large hydro power plants while other sources of RES have lower contributions.

When looking in to data on yearly basis EU28 is 14,10%, Italy 13,50%, while Croatia has a lead in this respect with 16,80% energy produced from renewables.

Years	2009	2010	2011	2012	2013	% Δ 2009/2012
EU28	12.30%	12.90%	13.60%	14.10%	-	1.80%
ITALY	7.70%	11.20%	11.70%	11.90%	-	4.20%
CROATIA	15.70%	17.30%	21.20%	23.20%	-	7.50%

Table 19: % of households using renewable energy.

Source: Eurostat

Based on the available data households are those leading the shift to new/green technologies. There is a positive trend in both countries, again both above EU28. When comparing trends over the period of 5 years Croatia has significantly higher indicator with 7.50%.

There is significant potential in **biomass energy** production. However, this potential still need to be fully exploited, both in large scale projects (national, regional) as well as in the housing sector in whole programme area. Heating plants on biomass represent important niche in renewable energy sector as the concept of sustainable development and management depends on a very large number of such projects, small and medium,

which can produce effects of saving money and protecting the environment. While Italy has significant number of registered producers of biomass energy Croatia is still at the beginning with only one mini heating plant on biomass for households in Karlovačka county. In addition, there is a cogeneration plant on biomass in Ličko-senjska county with installed power (capacity) of 950 kW.

**Solar and wind energy** had a boost in last couple of years in programming area. Exploitation of solar energy in both countries is in its development. However based on Eurostat data share of solar energy in total RES in Croatia in 2012 was only 0.6% while Italy a bit higher however still low with 9.8%.

Years	2009	2010	2011	2012	2013	% Δ 2009/2012
EU28	145,794.6	162,993.8	162,184.6	177,429.9	n/a	21.70%
ITALY	14,244.0	15,884.0	17,400.5	18,056.0	n/a	26.76%
CROATIA	1,029.3	1,232.7	1,068.8	1,181.2	n/a	14.76%

Table 20: RES in total: Primary production of renewable energy - 1 000 tonnes of oil equivalent.

Source: Eurostat

Years	2009	2010	2011	2012	2013	% Δ 2009/2012
EU28 TOTAL	2,564.0	3,764.4	6,111.9	9,101.5	n/a	254.97%
Solar thermal	1,358.4	1,829.3	2,215.4	3,320.2	n/a	144.42%
Solar photovoltaic	1,205.6	1,935.1	3,896.5	5,781.3	n/a	379.54%
ITALY TOTAL	143.1	298.0	1,068.7	1,777.1	n/a	1141.86%
Solar thermal	84.9	134.1	140.4	155.3	n/a	82.92%
Solar photovoltaic	58.2	163.9	928.3	1,621.8	n/a	2686.60%
CROATIA TOTAL	4.8	5.2	6.1	7.3	n/a	52.08%
Solar thermal	4.8	5.2	6.1	7.1	n/a	47.92%
Solar photovoltaic	0.0	0.0	0.0	0.2	n/a	20%

Table 21: Solar energy: Primary production of renewable energy - 1 000 tonnes of oil equivalent.

Source: Eurostat

Years	2009	2010	2011	2012	2013
EU28	1.8%	2.3%	3.8%	5.1%	n/a
ITALY	1.0%	1.9%	6.1%	9.8%	n/a
CROATIA	0.5%	0.4%	0.6%	0.6%	n/a

Table 22: Share of solar energy in RES.

Source: Eurostat

In relation to **wind energy** Italy has leading role in this sector for years. Wind farms in Croatia are all placed in programming area and are situated in 5 counties (Dubrovačko-neretvanska (1 wind farm), Splitsko-dalmatinska (4 wind farms), Šibensko-kninska (3 wind farms), Zadarska (5 wind farms), and Ličko-senjska (1 wind farm) of the Croatian programme area. Wind farms in Italian programme area are in Abruzzo (10 wind farms), Emilia Romagna (2 wind farms), Molise (19 wind farms), Puglia (6 wind farms) and Veneto (2 wind farms).

The measurements of specific wind characteristics (speed, direction, frequency) showed that Adriatic area is more suitable for the use of wind energy than continental parts. Installed power (capacity) of 14 wind farms in Croatian part of programming area is 207.1 MW. Italy is the world's sixth largest producer of wind energy with an installed nameplate capacity of 8,144 MW in 2012.

Years	2009	2010	2011	2012	2013	Last year % growth	5 years % growth
EU28	74,919	84,278	93,957	106,454	117,289	10.2	12.5
ITALY	4,850	5,797	6,747	8,144	8,552	5.0	19.8
CROATIA	104	152	187.4	207.1	-	10.5 <sup>10</sup>	32.5

Table 23: Installed wind capacity in megawatts per country and EU.

Source: Global Wind Energy Council; <http://www.gwec.net>

Both Croatia and Italy have great potential for exploitation of **hydro energy**. In Europe, Italy is one of the three major producers of hydroelectric energy, together with France and Spain while Croatia is 18<sup>th</sup> on the list. When it comes to programming area there are 809 hydro energy power plants, which makes 27% of total number of Hydro energy power plants in 2 countries.

	Italy	Croatia	PA Italy	PA Croatia	PA in total
Hydro energy power plants	2970	26	786	23	809

Table 24: Hydro energy power plants in programming area.

Source Italy: *Rapporto statistico 2012: Impianti and Fonti rinnovabili – Settore Elettrico*. Source Croatia: 2014 Croatian Electric Company (HEP)

Even though Croatia is rich when it comes to **geothermal energy** in general the programming area's part of Croatia isn't. This lies in the fact that two sedimentary basins cover almost the entire Croatian territory: Pannonian Basin and Dinarides. Based on the geothermal gradient, Dinarides show low geothermal potential, whereas Pannonian basin shows significant geothermal potential. In Italy, world fifth country by geothermal installed capacity, there are 33 active geothermal plants, however all the plants are outside of the programming area.

### Low carbon regions

Croatia and Italy both signed **Kyoto Protocol** and as countries are committed to reduce their greenhouse emissions. Renewable energy sources still do not have an appropriate share in the energy structure.

Country	Net energy imports		GDP per unit of energy use		Carbon dioxide emissions							
					total		Carbon intensity		Per kapita			
	%of energy used		2011 PPP \$ per kilogram of oil equivalent		1000 metric tons		kilograms per kilograms of oil equivalent energy use		metric tons		Kg per 2011 PPP of GDP	
	2009	2011	2009	2011	2009	2010	2009	2010	2009	2010	2009	2010
IT	83	81	11.5	12.3	417,550	406,307	2.8	2.4	7.4	6.9	0.2	0.2
CRO	43	55	..	10.3	16,773	20,884	2.5	2.4	3.8	4.7	..	0.2

Table 25: World Development Indicators: Energy dependency, efficiency and carbon dioxide emissions.

<sup>10</sup>Due to the fact that there are no data for 2013 for Croatia, yearly growth was calculated for 2011/2012.



Source: <http://wdi.worldbank.org/table/3.8>

The 2007/2008 UNDP Human Development Report states that stabilizing the greenhouse gas concentrations in the atmosphere at a level that prevents catastrophic climate change will require a 50% reduction of the GHG emissions by 2050 from 1990 levels. The UN, Kyoto Protocol and EU policy as such are encouraging all countries to continue their economic growth with the least competitive distortions while at the same time decrease growth in emission and adapt to effects of the changing climate. All countries should prepare their low carbon development strategies in the context of sustainable development. The EU has made commitment to deliver long term **low carbon development strategy** and some Member States have already made steps in this direction. Recently TH EC adopted a Roadmap for transforming the European Union into a competitive low carbon economy by 2050. This document describes cost effective pathway to reach the EUs objective of cutting greenhouse gas emissions by 80-90% of 1990 levels by 2050. Based on this there are recommendations and directions developed for sectoral policies, national and regional low carbon strategies and long term investments.

Years	2009	2010	2011	2012	2013	% Δ 2009/2013
ITALY	0.2496	0.2480	-	-	-	
CROATIA	0.3022	0.2970	-	-	-	

Table 26: Carbon intensity of countries (kg CO<sub>2</sub> from energy use per EUR of GDP).Source: <http://unstats.un.org/unsd/mdg/SeriesDetail.aspx?srid=788>

The current share of renewable energy sources in Croatia is 14.6% (against the target of 20% by 2020). At the same time, Croatia is dependent on few energy sources, in particular on gas and oil import. Croatia is showing progress in its Kyoto commitments. Over the past decade, greenhouse gas (GHG) emissions had a slight increase towards 2007 and kept decreasing afterwards mostly due to a decreasing industrial output caused by the recession. Energy use (fuel combustion) is the main source of emissions in Croatia. Non-ETS (Emissions Trading System) sectors such as transport, agriculture, households and waste contribute to the emissions. Croatia is exceeding its existing ammonia (NH<sub>3</sub>) 2010 emission ceiling in the Gothenburg Protocol by about 25%.

Among OECD countries, Italy is one of the least energy intensive and its reductions target is seen as ambitious. By setting this goal, however, the country is underlining its commitment to tackling the long-term consequences of climate change.

Italy has an 85.6% dependence on energy sources from abroad. The residential and public sectors account for 30% of energy demand, with the transport sector using 32% and the industrial sector taking up 28%. Since the 1990s, the country has been steadily reducing its demand for oil – though it still remains the most important source – as it increases its use of natural gas. It supplements oil and gas supplies with electricity imports and some coal use but no nuclear power. Within the electricity sector, more than 80% of production is provided by thermoelectric power plants, with the rest coming from renewables, such as wind and solar power.

Country	Carbon dioxide emissions									
	Electricity and heat production		Manufacturing industries and construction		Residential buildings and commercial and public service		Transport		Other sectors	
	% of total fuel combustion		% of total fuel combustion		% of total fuel combustion		% of total fuel combustion		% of total fuel combustion	
	2009	2011	2009	2011	2009	2011	2009	2011	2009	2011
IT	35.9	38.7	21.1	14.0	16.7	17.8	24.0	27.5	2.2	2.0
CRO	37.2	33.9	28.1	17.8	10.5	13.5	18.2	31.0	6.0	3.8

Table 27: Carbon dioxide emissions by sector.

Source: <http://wdi.worldbank.org/table/3.10>

Renewable energy sources usage in Croatia is in a growing rate in the past couple of years. Analysis of the usage of renewables in households shows 15,7% of households in 2009, and by the last available data from 2013 it goes to 23,20% which is a growth of 7,5% in a span between five years. In the same time percentage of households using renewables in Italy is much lower with 7,7% in 2009 and 11,9% in 2013 which represents a growth of 4,2%.

Comparing to EU28 (14,1%), Croatia is far above the average and has recognized energy efficiency issues as an important part of economic growth of the country. For this purpose it has a legislative framework including Law on energy, Law on energy efficiency in immediately consumption, the Strategy of energetic development of Croatia and National action plan for energy efficiency.

In March 2013 Italy adopted a National Energy Strategy (NES) recognizing that the energy sector has a fundamental role to play in the growth of the economy and of the country, both as a facilitating factor (having energy at competitive costs, with a limited environmental impact and a high quality is a prerequisite for the development of businesses and social purposes), and as a growth factor in itself (the potential of the green economy).

### **Adriatic Sea**

Key feature of the programme area is the **Adriatic Sea**. Adriatic coast and islands are the most valuable, but also one of the most vulnerable natural systems of the programme area. Adriatic Sea is a unique and highly sensitive marine ecosystem which, by its hydrographic, oceanographic, biological, bio-geographical and other features differs from the rest of the Mediterranean Sea even though it is an integral part of it. The Adriatic Sea is characterized by biodiversity, purity, transparency and unique landscapes. Due to its specific characteristics, Adriatic Sea is considered as specific sub-region within Mediterranean Sea. Coastal areas are also characterized by a high degree of biodiversity, including numerous endemic species, sensitive habitats and ecosystems. Both, Adriatic Sea and coastal areas play significant role in the development of economy, cultural and social life of the programme area. In this sense, Adriatic Sea should be given special attention in terms of its use and conservation.

The pollution of the Adriatic Sea ecosystem is caused by individual pollutants (phosphorus and nitrogen, heavy metals, organic and fecal contamination), especially near major port cities and large river deltas. Similarly, the pollution is significant in smaller towns due to porous septic tanks and bad sewerage systems. As regards to the remaining area of the Adriatic, pollution is comparatively low and the overall condition of the Adriatic is more than satisfactory.

The sanitary quality of bathing water at **Croatian** beaches is high (98.5 %). Therefore, Croatian part of the Adriatic is considered to be among the cleanest seas in the Mediterranean and Europe.

In relation to **Italy**, the sanitary quality of bathing water at beaches is also showing high performances with 96.6% in 2012, showing an increase of 4.6% in comparison to 2011<sup>11</sup>.

Friuli Venezia Giulia<sup>12</sup> reports that the quality of bathing water on 54 Adriatic sites (out of 57 under monitoring) is "excellent", while 1 is "sufficient" and 2 "weak".

Veneto<sup>13</sup> reports 73 monitoring sites (out of 76) in Venice Province of "excellent" quality (96.1%) and 3 sites of "good" quality (3.9%). These latter are all located in Chioggia municipality (Isola Verde coastal side). Rovigo can boast "excellent" quality on all test sites (17/17) (100%)

Emilia Romagna<sup>14</sup> reports 93 bathing water sites. 92 are of "excellent" quality and 1 is "good".

In Marche Region<sup>15</sup>, data available show similar good results. Out of 257 monitored, 240 sites are marked as "excellent" for bathing water quality, 5 "good", 3 "sufficient" and 4 "weak". For 5 sites data are not available.

Lack of equipment for the purification of urban and industrial wastewater, accidental and operational pollution from marine objects, accidents in the transport of oil and oil products, the problem of introducing foreign marine microorganisms and pathogens in marine environment, fishing and overfishing of fish stocks, excessive construction in the coastal zone are considered as the most important environmental problems, and thus the problems of sustainable development of the Adriatic Sea. In total, 123 fish species are on the Red List of endangered fish of the Adriatic Sea, five of them being critically endangered. The production in mariculture sector is increasing; therefore, its impact on the surrounding ecosystems is continuously monitored.

Another source of pollution of the Adriatic is solid waste. Drifting waste, occasionally relatively large quantities of material, especially waste plastic, is transported northwest by the sirocco.

Each of the problems indicated above represents serious environmental risks with irreversible consequences related to significant economic and social consequences. Both Italy and Croatia, together with other member states of the Mediterranean Action Plan (MAP) adopted the Mediterranean Strategy for Sustainable Development thus giving special attention to the sustainable development of the Mediterranean, especially to sustainable management of the sea, coastal and marine resources. Together, they are determined to meet the challenges of environmental degradation in the sea, coastal areas

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<sup>11</sup> source: Ministry of Health, Italy (Rapporto sulle acque di balneazione 2012)

<sup>12</sup> source: ARPA FVG Report 2014 (Relazione acque di balneazione)

<sup>13</sup> source ARPAV Report 2013

<sup>14</sup> [http://www.arpa.emr.it/pubblicazioni/balneazione/generale\\_3267.asp](http://www.arpa.emr.it/pubblicazioni/balneazione/generale_3267.asp)

<sup>15</sup> [http://www3.arpa.marche.it/doc/pdf/acqua/balneazione\\_3.pdf](http://www3.arpa.marche.it/doc/pdf/acqua/balneazione_3.pdf)

and inland, and to link sustainable resource management with development, in order to protect the Mediterranean region and contribute to an improved Mediterranean quality of life.

In addition to other protective measures related to the security of navigation, both countries adopted International Convention on the Management of Ships' Ballast Water and Sediments (BWM Convention) from 2004 in order to participate in a common and globally uniform ballast water management (BWM) approach.

**Promoting climate change adaptation, risk prevention and management**

Based on the conclusions of the EC in the preparation of partnership agreement with Croatia in general Croatia's urban areas and countryside are not sufficiently resilient to climate change and disasters. Due to the fact that forests cover about 47% of the land in Croatia they present major challenge. Additionally preventive flood protection measures are not sufficiently developed. Finally, in view of constantly booming tourism special attention should be paid to preserving the unique sea and maritime eco-system of the Adriatic Sea, which might be at risk with an increase in number of tourists, such as droughts and wild fires.

In Croatia, in last 30 years the average damage was determined to be US\$ 247 million per year (1.3% of GDP annually) where about 80% of the total damage is caused by the direct impacts of natural hazards. They are also responsible for many untypical hazards such as wildfires, landslides, plant diseases and pests as well as for the intensity of technical and technological disasters.

The relationship between different natural hazards in particular year during the long-term period in Croatia is very variable concerning frequency of appearance and damage magnitude.

Type of natural hazards	Share of damage caused
Drought	39%
Storm Hail	23%
Earthquake	9%
Flood	9%
Frost	7%
Wild Fire	6%
Other causes	5%
Combination	2%

Table 28: Damages caused by natural hazards (1981-2010) in Croatia  
 Source: 2010; WG5 – Societal and economical impacts, TTO7 – Task Team for Observation, Monitoring vulnerability factors; DHMZ Croatia. [https://bib.irb.hr/datoteka/628352.Gajic-Capka\\_et\\_al-HyMex6-poster-A4.pdf](https://bib.irb.hr/datoteka/628352.Gajic-Capka_et_al-HyMex6-poster-A4.pdf)

Spacious mountainous areas with high precipitation, wide valleys of lowland watercourses, major cities and valuable assets in potentially threatened areas and insufficiently constructed and maintained protection systems make Croatia very vulnerable to floods. It is estimated that floods endanger over 15% of national inland territory. The existing protection systems in Croatia are extremely complex and comprise of a large number of regulative and protective water structures.

Previous estimates of the damage after the flood all over the world, including Croatia, have shown that they were always much higher than the costs of implementation of preventive measures.

Severe damage can be caused by flooding of the major rivers out of which in the programming area there is Neretva River which flows into the Adriatic Sea. River sources are outside of the Croatian territory, and the rise of the rivers' levels and potential flooding, is mainly due to hydrological events in neighbouring countries (Slovenia, Hungary, Bosnia and Herzegovina or even in the upper part of the river catchment in Germany, Austria or Italy). There are the larger numbers of smaller watercourses, dry river bed, canals, lakes, karst springs and underground rivers that can also cause flooding. Causes of flooding are usually abundant rainfall (short- and long-term), and snow melting. In the case of abundant convective precipitation, a short-term and spatially limited flooding appears. In the event of prolonged rainfall, the flooding is caused by this precipitation itself. There are also swollen mountain streams, the river beds fill and pour. Floods in this case may affect the larger area. In the karst area, the springs and rivers can also be activated. River spills are usually caused by hydrological events in neighbouring countries, and can be combined with hydrological events in Croatia. Such flooding can also affect larger areas. Snow melting, especially rapidly, can cause increased water levels of rivers, forming a torrential watercourse, lake level rise, and outbreaks of water from underground karstic spheres.

Most serious damages are related to floods, droughts and fires, with around 70% of damages being on agricultural land (in particular caused by droughts). In the 2005–2012 period on the Croatian side, 2,488 forest fires were reported in which almost 80,000 ha of forests were affected, with large parts located in the coastal counties (both in terms of number of fires and affected area). Currently, Disaster Risk Assessment is being developed (to be completed by end 2015), which will provide the basis for improvement of the overall disaster management system, specifically by prioritizing specific risks and measures that require mitigation.

In the area of the Adriatic Sea there is approximately 20,600 ha at risk of flooding.

Most common natural hazards in Italy from 1980 to 2010 are landslides, mudflows, avalanches, earthquakes, volcanic eruptions, flooding and land subsidence. Flooding and land subsidence present biggest threat for the area of City of Venice. From the above mentioned period there were 80 natural hazards recorded - 25 were floods, which makes 31% of all hazards. Earthquakes are next with 18, while other events occur more rarely.

From point of view of recorded economic damage, annually the damage is around US\$ 1,92 billion (0,92% of GDP). Even though in the observed period there was only 1 drought, it caused the biggest damage, estimated around US\$ 300 million, followed by extreme temperatures with US\$ 60 million.

The most human casualties are caused by extreme temperatures (3.352 deaths per event), while earthquakes (30.673 per event), volcano's (3.500 per event) and floods (3.286 per event), affects most people.

Type of natural hazards	Share of damage caused
Drought	3%
Earthquake	23%
Extreme temperature	8%
Flood	31%
Storm	13%
Wild Fire	9%
Mass movement wet	10%
Other	3%

Table 29: Damages caused by natural hazards (1980-2010) in Italy

Source: Prevention web, Italy disaster statistics; <http://www.preventionweb.net/english/countries/statistics/?cid=85>

Programming area is under influence of climate change as much as other parts however in relation to specific elements of this climate change high temperatures and long-lasting severe droughts this area is more than ever susceptible to open air fires. Fires spread easily across borders, endangering the entire region. Their outcomes range from extensive damage to landscapes, real estate and other country's resources to endangering people's safety and causing casualties that immediately affect tourism sector.

In the time period 2005 – 2012 there were 2488 forest fires out of which in Mediterranean area 72% (1792). Total area affected by fire in karst and continental territory was 79628 ha, with participation of karst 89%. One of the most difficult years for Croatia was dry 2012 with 953 fires devastating 24804 ha of forests and forest and other land out of which 569 in karst areas. Causes of fires can be both natural and human.

Rescuing in general is organized in both countries through integrated system of National Protection and Rescue Service (112) as an independent, professional and administrative organization for preparation, planning and management of the activities of all participants in protection and rescue.

The Croatian Meteorological and Hydrological Service (Državni hidro meteorološki zavod or DHMZ) is the national agency for weather forecasts. The agency produces operational weather forecasts using Unified Model EMEP software for Numerical Weather Prediction (as part of the ALADIN international cooperation project) assisted by human forecasters, and DHMZ regularly supplies forecasts used in news programs broadcast by the Croatian Radio television (HRT), including their prime-time TV news. DHMZ joined the WMO in 1992 and it represents the country in international organizations ECMWF and EUMETSAT. DHMZ also publishes various publications such as periodicals related to meteorology, annual national climate reports, as well as meteorology dictionaries and climate atlases. They also participate in various scientific projects and their members often publish articles in peer-reviewed journals. Because of this DHMZ has been officially designated as a research institution by the Croatian Ministry of Science, Education and Sports in 1996.

The Italian Meteorological Service is an organizational unit of the Italian Air Force (Servizio Meteorologico dell'Aeronautica Militare), and as such, the national meteorological service in Italy. The weather forecast and other services serve both the armed forces and the general public.

The Law of Fire-prevention, the Law of Fire-fighting and the Law of protection and safety as well as their sub-regulations and corresponding acts and orders of districts, cities and municipalities regulate all matters of fire-prevention and fire-fighting in Croatia. According to the Croatian constitution, fire-fighting is matter of local municipalities. Professional and volunteer fire-fighters are equal regarding the fulfilling their duties, but the professional fire-fighting units work on bases of the Law of Public Institutions, and the volunteer fire-fighting units on bases of the Law of Associations of Citizens. Additional 4 fire-fighting intervention-units work in 4coastal counties in Dalmatia, and all fire-fighting units are commanded during the summer by the Center in Divulje near Split, all part of the National Directorate for protection and safety. Specific for Croatia is also the engagement of 1.000 seasonal fire-fighters and additional fire-fighting units on islands to protect them from wildland fires in summer.

Especially important to programming area is Mountain Rescue Service of Croatia due to daily migrations of tourists and adventure sportsman in rocky and inaccessible areas of the borders of 3 countries.

The Croatian Mountain Rescue Service is a volunteer, not-for-profit and public organization. The Croatian Mountain Rescue Service has safeguarded citizens and visitors in Croatia since 1950, 24 hours a day, 365 days a year. It is organized through 22 territorial units, and it gathers over 700 members. They gather Croatian rock climbers, speleologists, mountaineers and skiers, specially trained in administering of first aid and in all mountain rescue techniques, including helicopter-aided rescuing and search parties in rugged terrain involving the use of rescue dogs. CMRS is a member of the international association of mountain rescue services IKAR-CISA. CMRS is specialized in rescuing in mountains, on rock faces, in caves, from rugged terrains and other unapproachable places in difficult weather conditions, where rescuing requires application of special mountain-rescue skills and equipment. This includes accidents in mountain regions, rocks, caves, steep and other rugged terrains, as well as accidents that occur in particularly bad weather conditions (snow, cold, ice, fog, etc.). Often, the areas of the CMRS's activity are urban communities and other non-mountain areas as well. This includes missions performed on high buildings, in tunnels and pipelines, in traffic accidents and at the sea, as well as related to various extreme sports (paragliding, mountain biking, rafting, etc.). Other important activities of the Croatian Mountain Rescue Service, besides rescuing and administering of first aid to people injured in rugged areas, are education and prevention, that is, preventing and avoiding of accidents in rugged areas, especially of mountaineering related accidents.

The *vigili del fuoco*, literally the *Firewatchers*, (official name ***Corpo nazionale dei vigili del fuoco***) (CNVVF, **National Fire-watchers' Corps**) is Italy's institutional agency for fire and rescue service. It is part of the Ministry of Interior's *Dipartimento dei Vigili del Fuoco, del Soccorso Pubblico e della Difesa Civile* (Department of Fire Watch, Public Rescue and Public Protection). The corps' task is to provide safety for people, animals and property, and to give technical assistance to industries and fire prevention advice. It also ensures public safety in terrorist emergencies such as chemical, bacteriological, radiological and nuclear attacks.

### ***Water supply and sewage systems***

A reliable supply of safe drinking water and sanitary disposal of excreta are two of the most important means of improving human health and protecting the environment.

Data on access to an improved water source measure the percentage of the population with ready access to water for domestic purposes, based on surveys and estimates of service users provided by governments to the Joint Monitoring Programme of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). The coverage rates are based on information from service users on household use rather than on information from service providers, which may include non functioning systems. Access to drinking water from an improved source does not ensure that the water is safe or adequate, as these characteristics are not tested at the time of survey. While information on access to an improved water source is widely used, it is extremely subjective; terms such as "safe," "improved," "adequate," and "reasonable" may have different meanings in different countries despite official WHO definitions (see Definitions). Even in high-income countries treated water may not always be safe to drink. Access to an improved water source is equated with connection to a supply system; it does not account for variations in the quality and cost of the service.

Data for Croatia for 2010 shows that public sewage systems connected only 43% of the population, but also that wastewater was purified for only about 27% of them. The coverage ratio (share of the population able to connect to the public water supply system) on the level of the Republic of Croatia is on the average 80-82%. The connection ratio (share of the population connected to the public water supply system) is somewhat lower

and it is estimated at is on the average 74%. There are significant differences in the level of coverage between regions. The differences are even larger between the counties and in particular between towns and municipalities.

Italy shows slightly better situation, with public sewage system serving 84.7% of the population (164.473 km)<sup>16</sup>.

Wastewater network connects 72.3% of the population. Also in Italy the situation is heterogeneous, with relevant differences region by region. In Northern-centre regions the rate is 77.6% while in Abruzzo the rate is 68.8%, Molise 79.4% and Puglia 68% showing significant improvements<sup>17</sup>.

When it comes to water availability, figures improve, with a rate of population connected to public water supply system of 95.9%

### ***Solid waste management***

In terms of (municipal) waste management Croatia recorded per capita municipal waste generation with quite a high collection coverage rate (96% in 2010). The Croatian average in terms of level of re-use of municipal waste is 12 kg/per/y vs. 121 kg/per/y and share of municipal waste being landfilled is 348 kg/per/y vs. 188 kg/per/y.

The situation is somewhat better with special categories of waste, which are subject to specific legally prescribed modes of separate collection and reuse (they are also financially subsidized), with a rate of collection and reuse varying from 35% (for electrical and electronic waste) up to 85% (for packaging waste). In terms of landfills, up until 2012 a total 107 municipal waste landfills were remediated and closed with 48 being in the process of remediation and 146 still being in use mainly for the purpose of land filling municipal waste. In addition to the official waste landfills, there are an estimated 3,000 of unregulated landfills (wild dumps).

Besides compliance-based obligations, improvements in the public utilities/municipal services sector are necessary since the current institutional system for waste management is fragmented and inefficient. Consolidation is needed in order to secure adequate availability of services across Croatia, provide basic prerequisites for a more balanced regional development and secure efficient management of resources, as well as the protection of the natural environment.

Croatia has total quantity of waste generated up to 1,645,295 tonnes and total quantity of waste collected up to 99% with 268,053 tonnes separately collected.

In Italy, municipal waste has increased between 2000 and 2010 from 28mt to 32mt, equivalent to 509kg to 531kg/person, higher than the 520kg/person EU28 for 2010. The country has great variability in waste management quality, with very well performing (high recycling/composting, stabilized or reduced waste generation levels) regions as well as extremely poorly performing regions. Italy's recycling and recovery rates are still in transition, for example it doubled municipal waste recycling between 2000 and 2010 from 10% to 20%, and it reduced its landfilling of municipal waste in that time from 76% to 48%.

It is anticipated that Italy will meet the 2020 target of 50% municipal waste recycling. However, it is questionable whether the 2009 (2013 with derogations) biodegradable

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<sup>16</sup>"Blue Book 2014", Utilitatis

<sup>17</sup>[http://www.dps.tesoro.it/obiettivi\\_servizio/servizio\\_idrico.asp#](http://www.dps.tesoro.it/obiettivi_servizio/servizio_idrico.asp#)



municipal waste diversion target will be met. Focus in previous years has been on the much-needed closure of illegal or sub-optimally performing landfills. This has led to a shortage in landfill capacity. This situation has been exacerbated by poorly developed waste collection services. In some regions, since the closure of many landfills, political focus has been on building of large incinerators instead of introducing recycling/composting collection systems. This also explains the wide discrepancies in recycling performances between regions. In general, technical barriers to good waste management include lacking and misused infrastructure, surplus staff and poor management.

Italy also does not make full use of polluter pays or extended producer responsibility tools, which are key tools in waste management. Although a landfill tax was introduced in 1996 (through a law defining the upper and lower levels of the tax, with tax levels set at a regional level), the levels vary widely between regions and it is generally considered to be low. Italy has also introduced an incineration tax of 125 EUR per tonne which is considered relatively high with respect to other Member States. PAYT systems have been introduced in 1,000 of 8,100 municipalities, although amounts paid are often linked to the surface area of the household and to the number of inhabitants, rather than to actual waste generation.

### ***Habitat protection and biodiversity***

Due to increased demand for economic development nature protection is very important part of sustainable growth puzzle. Deforestation is a major cause of loss of biodiversity, and habitat conservation is vital for stemming this loss. Conservation efforts have focused on protecting areas with high biodiversity.

EUROPE 2020 strategy together with the EU's Biodiversity Strategy is defining the goal of safeguarding biodiversity and further distortion of ecosystem functions but also its restoration by 2020. In this respect, the Natura 2000 network, which consists of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) provides a common EU framework to safeguard natural assets and serves as the main European instrument to achieve the biodiversity objectives. Both countries, as member states are active in Natura 2000 network.

Another relevant policy instrument is the EU Water Framework Directive (2000), which establishes a common basis for actions in the field of water policy and integrated river basin management.

Indicator	Source	Italy	Croatia
Mountain Areas (in%)	Nordregio (2004), Mountain Areas I Europe	35	20
Forest area (in %)	2011, World Bank	31	34
Agr. area (in %)	2011, Eurostat	47	23
Annual freshwater for agriculture (in %)	2011, World Bank	44	2
Land and marine protected areas (in %)	2011, World Bank	21	14
Population density (person/sqkm)	2011, Eurostat	170	76
Population in agglomerations over	2011, World Bank	17	-

1 million (%)			
Rural population (%)	2011, Eurostat	31	41
Topographic diversity	Calculation based on geographic form and elevation variation	Medium (North-South)	High (East-West)

Table 30: Environmental situation, basic context indicators

Programming area is as shown in the data, very rich in its biodiversity with many Natura 2000 sites meaning many diverse habitats and species. Croatia has significantly higher % of protected area where almost half of the country territory (including Adriatic Sea) is rich biodiversity area.

Territory	Coverage in %
EU 28 (2014)	24.23%
ITALY (2012)	21.2%
Veneto	22.7%
Friuli Venezia Giulia	19.1%
Emilia Romagna	12.0%
Marche	15.2%
Abruzzo	36.3%
Molise	26.8%
Puglia	24.5%
CROATIA (2014)	45.86 %
Adriatic Croatia	32,00 %
Continental Croatia	26,03%
Karlovačka županija	31,99 %

Table 31: Protected area surface included in Natura 2000 network by region, Year 2012 (percentage of total surface (ha)).

Source: ISTAT; Croatian State Institute for Nature Protection

	Member State land area in km <sup>2</sup>	Proportion European land area of Member state covered by NATURA 2000(only terrestrial)	Proportion covered by NATURA 2000 (terrestrial +marine)	Terrestrial	Marine	NATURA 2000 area in km <sup>2</sup>
ITALY	301,333	18.96%	21.19%	57,137.06	6,704.04	63,841.10
CROATIA	56,594	36.53%	45.86%	20,674.70	5,279.51	25,954.21
EU28	4,290,148	18.36%	24.23%	787,767.37	251,564.67	1,039,332.05

Table 32: Protected area surface included in Natura 2000 network by country, Year 2013.

Source: Natura 2000 Barometar, 2013 [http://ec.europa.eu/environment/nature/natura2000/barometer/index\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/barometer/index_en.htm)

### **Cultural heritage**

Due to its long lasting traditions and dynamic history programme area represents a culturally rich and worldwide valued territory. The Adriatic Sea has traditionally constituted a basin for economic and social exchanges between different cultures and religions from antiquity to modern times. Architects, painters, sculptors have all left their signatures in various settlements on both sides of the sea and in most of the cases the value of the cultural heritage has been acknowledged by international community.

Evidence for this can be found in the number of world heritage sites which can be found in the programme area. There are 27 UNESCO World Heritage protected sites, natural heritage and intangible heritage in the area altogether creating a very attractive destination for tourism. Out of them 10 are located on the Italian side while 17 on Croatian one. Some of these sites are well preserved and managed while some need improvement in their condition, accessibility and presentation.

<b>CROATIA (Programme area)</b>
Historical Complex of Split with the Palace of Diocletian (1979)
Old City of Dubrovnik (1979)
Episcopal Complex of the Euphrasian Basilica in the Historic Centre of Poreč (1997)
Historic City of Trogir (1997)
The Cathedral of St James in Šibenik (2000)
Stari Grad Plain (2008)
Plitvice Lakes National Park (1979)
Two-part singing and playing in the Istrian scale (2009)
Procession ZaKrižen ('following the cross') on the island of Hvar (2009)
Lacemaking in Croatia (2009)
Festivity of Saint Blaise, the patron of Dubrovnik (2009)
Annual carnival bell ringers' pageant from the Kastav area (2009)
SinjskaAlka, a knights' tournament in Sinj (2010)
Gingerbread craft from Northern Croatia (2010)
NijemoKolo, silent circle dance of the Dalmatian hinterland
Klapa multipart singing of Dalmatia, southern Croatia (2012)
Mediterranean diet (2013)
<b>ITALY (Programme area)</b>
Venice and its Lagoon (1987)
City of Vicenza and the Palladian Villas of the Veneto (1994)
Ferrara, City of the Renaissance, and its Po Delta (1995)
Castel del Monte (1996)
Early Christian Monuments of Ravenna (1996)
The Trulli of Alberobello (1996)
Botanical Garden (Orto Botanico), Padua (1997)
Archaeological Area and the Patriarchal Basilica of Aquileia (1998)
Historic Centre of Urbino (1998)

## Mediterranean diet (2013)

Table 33: European cultural sites, natural sites, intangible heritage in Programme area on the UNESCO World Heritage List, 2010.

Source: Eurostat, <http://whc.unesco.org/en/statesparties/hr>; <http://whc.unesco.org/en/statesparties/it> Source: <http://www.unesco.org/culture/ich/index.php?lg=en&pg=00011#tabs>

Cultural sites sometimes present some common characteristics in terms of building techniques and materials used therefore CB cooperation could be an added value in terms of exchange of experiences and development of joint approaches.

Another important element bridging the two shores is represented by national minorities. Italians in Croatia are a recognized part of the population especially in Istria County while Croats are present in some villages in Molise where language and traditions are preserved and valorised at local level.

The programme area also has a number of museums and art galleries, which showcase local artists and promote artistic and cultural expression in all of its forms. Italy is one of the world leaders in cultural institutions and in its presentable collections.

The content of Italian museums and galleries is impressive and numbers more than 35 million pieces. Italy also has more than 700 cultural institutes, over 300 theatres, and about 6,000 libraries, housing well over 100 million books.

A quarter of Italy's museums belong to the Italian state, just under half to local authorities, and a small proportion to public bodies, religious organizations, and private owners. The numbers of museum visitors are dependent on overall tourism trends, but individual museums routinely count their annual attendance totals in the millions.

Academies and societies, representing a multitude of interests, have proliferated in Italy. Indeed, academies of the fine arts had their origins in Italy. When it comes to most important cultural features Croatia has literary tradition, which dates to about 1100, with the dedication of the Baška Tablet (Bašćanska Ploča), a stone monument inscribed with Glagolitic. The first printed book in the Croatian language was *Hrvoje's Missal*, a liturgical text printed in 1483. Works of the Croatian most famous sculptor, Ivan Meštrović, are well known worldwide. Croatian visual artists also have been active in several other genres. Hundreds of painters and photographers are represented in 281 museums, galleries, museum collections; 171 church collections, as well as a large number of private collections that hold more than 7.6 million objects throughout the country, with specific museums featuring most famous Croatian brand Croatian naive painting. Traditional Croatian arts, including fine textile and lacework are also displayed.

### ***Sustainable transport***

There is a long lasting tradition of exchange of people, goods, capital, knowledge and technologies in the programming area. The accessibility of Italian coastal territories is ensured by network of motorways and Adriatic state roads, together with the railways (with good branch lines) that serve the harbour of Trieste and Venezia - Mestre in the north and Ravenna, Ancona and Pescara - Ortona for the centre. Bari, Brindisi, Lecce and Taranto in the south of Italy play a strategic role in connections with the Ionic coast and from here, the Meridian Corridor which crosses the Mediterranean from Gibraltar to Turkey up to the Black Sea.

In Croatia road network is quite extensive, even if it is mostly of regional and state importance, and the navigation and maritime transport capability of the harbours is good. One of the biggest maritime commercial transport companies is located at Zadar harbour

which is a very important for ferry connections with Italy. Split harbour carries the highest number of passengers and, together with Dubrovnik harbour, is also very important for ferry connections with Italy. Two motorways are crucial for road transport in the Croatian part of programming area: Zagreb - Rijeka and Zagreb - Dubrovnik motorways. However motorway did not reach Dubrovnik yet and there is still Croatian territorial discontinuity on land in Dubrovnik-Neretva County (Croatian territory divided by BiH territory).

Rail transport of both passengers and goods is mostly of local importance. Of international importance in Croatia is the rail link inland from the harbour of Rijeka to central and Eastern Europe via Zagreb. Activities linked to traffic and communications are of great importance to the Croatian economy in particular in the coastal mountain regions and in Dubrovnik-Neretva.

Maritime transport of passengers by NUTS 2 regions				
1 000 passengers				
geo\time	2009	2010	2011	2012
Adriatic Croatia	12964	12565	13311	13050
Veneto	841	354	288	220
Friuli-Venezia Giulia	:	:	:	:
Emilia-Romagna	:	:	:	:
Marche	1461	1517	1409	1065
Abruzzo	:	:	:	:
Molise	:	:	206	194
Puglia	1896	1987	2175	1963
Maritime transport of freight by NUTS 2 regions				
1 000 tonnes				
geo\time	2009	2010	2011	2012
Adriatic Croatia	19102	19033	16485	14839
Veneto	30423	34382	34705	30786
Friuli-Venezia Giulia	47076	44545	46378	47197
Emilia-Romagna	23848	22186	22281	22402
Marche	10213	9934	9241	8316
Abruzzo	1008	1130	1403	1382
Molise	:	:	:	:
Puglia	51460	49918	57088	50047
Air transport of passengers by NUTS 2 regions				
1 000 passengers				
geo\time	2009	2010	2011	2012
Adriatic Croatia	2801	3084	3206	3555
Veneto	111472	11958	12978	13635
Friuli-Venezia Giulia	692	721	854	877

Emilia-Romagna	5915	6873	7346	7100
Marche	420	504	597	553
Abruzzo	408	456	548	559
Molise	:	:	:	:
Puglia	3954	5045	5821	5860
<b>Air transport of freight by NUTS 2 regions</b>				
1 000 passengers				
geo\time	2009	2010	2011	2012
Adriatic Croatia	1	1	1	1
Veneto	29	33	33	33
Friuli-Venezia Giulia	0	0	0	0
Emilia-Romagna	28	30	34	31
Marche	6	6	7	7
Abruzzo	2	2	1	1
Molise	:	:	:	:
Puglia	3	3	2	2

Table 34: Transport maritime and air by NUTS 2 regions.  
Source: Eurostat

On the Croatian part of the programme area data on maritime transport per 1000 passengers shows minor variations slightly through years. Similar trend is present on Italian side of the programme area, but with bigger differences between regions. Furthermore, data for maritime transport of freight in Croatia shows a constant decrease in transported freight through years, while in Italy that data again varies greatly between regions, where in Puglia and Friuli-Venezia that number is by far bigger than in other regions including the Croatian ones. Presented data of air transport of passengers in Croatia shows constant increase of passengers over the years. In the Italian side of the programme area passengers increase is also constant through years, with the highest number of passengers in Veneto region. Air transport of freight in Croatia is constant over the years, but in larger scale smaller than on the Italian part of the programme area.

On the Croatian side rail network is long around 780 kilometres with constant length over the years. In Italy length of rail network varies between regions and over the years, where the region Veneto stands out with the longest one, with around 1100 kilometres. On the other side, length of motorways network in Croatia is increasing through years, and comparing to regions of the Italian side has the longest motorways network, around 600 kilometres. Also, length of motorways network in Italy varies greatly between regions.

Analysing the data of modal split of passenger transport as a percentage in total inland passengers in kilometres in Croatian side of the programme area it is visible that percentage of total inland passengers by trains is decreasing rapidly over the years, transport with passenger cars is increasing, while transport with motor coaches, buses and trolley buses is constant over the years. In Italy this trend is inverted. The percentage of total inland passengers by trains, motor coaches and trolley buses is increasing over the years, while transport with passenger cars is steadily decreasing. The same trend as in Italy is notable in EU28.

In Croatia, freight transport by railways, roads and inland waterways varies over the years as in EU28. On the Italian side of the programme area there is a noticeable increase in freight transport through railways and somewhat through inland waterways, while transport by road is decreasing.

In Croatia total length of railways is constant where number of passengers is rapidly decreasing as the transport of goods in the last five years. In Italy length of railways is increasing as the transport of goods while number of passengers varies through years. The total length of motorways is by far longer in Italy than in Croatia (for cca. 5000km or for five times longer).

Maritime transport makes small % of overall transport in Croatia with very weak multimodal connections to other means of transport. Most important harbours for freight are Rijeka at north and Ploče at south making 90% of all freight maritime transport. Split is most important passenger port with more than 4 million passengers a year. Coastal navigation connecting 73 island ports and 22 costal ports is extremely important for tourism, but also for quality of life and business in islands. Most of coastal lines are subsidized by the Government due to its lack of profitability. There are 3 trans-Adriatic connections for passengers (provided by Croatian companies): Zadar – Ancona, Split – Ancona and Dubrovnik – Bari, only second one being permanent.

Nautical tourism became important economic activity on Adriatic in the last 20 years. On Croatian side – there is a stagnation in number of yachts, but Strategy for Nautical Tourism envisages 15.000 new berths by 2019.

Biggest needs in Croatian maritime transport are:

- Improvement and technological development of hydrographic activities
- Development and maintenance of infrastructure for safe navigation and nature protection
- Development and modernisation of transport separation scheme (and appropriate infrastructure)
- Improvement in information services to entire maritime industry<sup>18</sup>

Transport of goods by road, inland waterways, air or sea in Italy and Croatia varies over the years, followed by the same trend of EU28.

Important corridor for programming area is Mediterranean corridor that connects south of Iberian peninsula, across Mediterranean coast of Spain and France going through Alps in North Italy and then entering Slovenia going towards Hungarian-Ukraine border. Integral part of this corridor is rail and motorway transport Rijeka-Zagreb- Budapest (Vb corridor). Mediterranean corridor is also extended with rail and motorway transport Zagreb-Slovenia (X corridor).

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<sup>18</sup> Source: Transport development strategy 2014 – 2030, Croatia

### 1.1.1.6. Inclusive growth

The inclusive growth based on the World Economic Forum methodology captures 2 main pillars, labour market and employment conditions, as first one and the social inclusion as second. For the purpose of this exercise, this territorial analysis extended understanding of inclusive growth with 2 additional pillars: Education and Health.

The global economic crisis of the past five years affected EU which entered a recession in the second quarter of 2008 lasting for five quarters. This has made serious effect on labour market and employment conditions. Unemployment was rising and jobs were dynamically changing or disappearing. Efficiency and flexibility of labour market was crucial in this context.

However in this drive for more efficiency one must not forget risks of social disruption due to these changes and has to provide framework for adaptation to changes in the labour market (such as education) with securing all the benefits for workers but also rest of the population (health and social care).

At EU level, between 2009 and 2011, the crisis increased the population at risk of poverty and social exclusion by 1%. Indicators such as risk of poverty rate, severe material deprivation and very low work intensity are also on the rise.

World Economic Forum report is displaying data for 2 countries showing score of both countries in sector of Education and training and Social inclusion while both countries have low score in Labour market and employment section.

Country/economy	Education and training	Labour market and employment	Social inclusion
Italy	4.74	2.89	4.39
Croatia	4.39	3.37	4.18

Table 35: Europe 2020 Index—Score Dispersion among EU Countries (Score 1–7).  
Source: World Economic Forum, 2014

### Employment

Years	2009	2010	2011	2012	2013	% Δ 2009/2013
EU28	8.9%	9.6%	9.6%	10.4%	10.8%	1.90%
ITALY	7.8%	8.4%	8.4%	10.7%	12.2%	4.40%
Veneto	4.8%	5.8%	5.0%	6.6%	7.6%	2.80%
Friuli Venezia Giulia	5.3%	5.7%	5.2%	6.8%	7.7%	2.40%
Emilia Romagna	4.8%	5.7%	5.3%	7.1%	8.5%	3.70%
Marche	6.6%	5.7%	6.7%	9.1%	11.1%	4.50%
Abruzzo	8.1%	8.8%	8.5%	10.8%	11.4%	3.30%
Molise	9.1%	8.4%	9.9%	12.0%	15.8%	6.70%
Puglia	12.6%	13.5%	13.1%	15.7%	19.8%	7.20%
CROATIA	9.1%	11.8%	13.5%	15.9%	17.2%	8.10%
Adriatic Croatia	9.6%	11.3%	13.1%	14.8%	14.8%	5.20%
Adriatic Croatia	16.2%	18.9%	19.5%	19.6%	17.9%	1.71%
Adriatic Croatia +	17.0%	19.8%	20.2%	20.4%	18.8%	1.75%



KAZUP						
Primorsko-goranska	11.6%	14.8%	15.7%	15.6%	14.7%	3.10%
Ličko-senjska	18.9%	21.5%	22.3%	20.9%	19.5%	0.60%
Zadarska	18.7%	21.1%	21.0%	21.1%	18.7%	0.00%
Šibensko-kninska	20.6%	23.3%	23.3%	24.0%	21.9%	1.30%
Splitsko-dalmatinska	19.4%	22.7%	24.0%	25.8%	24.4%	5.00%
Istarska	8.4%	10.7%	11.5%	10.9%	9.8%	1.40%
Dubrovačko-neretvanska	15.5%	17.9%	18.8%	19.0%	16.1%	0.60%
Karlovačka	23.0%	26.0%	25.0%	25.7%	25.0%	2.00%

Table 36: Unemployment rates and trends (15-74).

Source: Eurostat, CES

NOTE: The table *Unemployment rates and trend* consists of two sets of data for Adriatic Croatia. The first set (beginning with 9,6%) is from Eurostat and the second from Croatian bureau of statistics. Values in the two data sets are significantly higher according to Croatian bureau of statistics so there must be a difference in the methodology used in calculating data for unemployment rate.

Average	2009	2010	2011	2012	2013
PA Italy	7.33%	7.66%	7.67%	9.73%	11.70%
PA Croatia	17.0%	19.8%	20.2%	20.4%	18.8%
Total PA	12.5%	14.1%	14.4%	15.4%	15.5%

Table 37summary: Unemployment rates and trends (15-74).

Source: Eurostat; CES;

World recession caused by financial crisis is one of the main reasons of loss of jobs and increase in unemployment rates throughout the EU countries. Even though increase from 2009 to 2013 on EU28 level was only 1.90% many countries have been seriously affected, including Italy and Croatia. In Italy there is an increase of unemployment rate of 4.40% while in Croatia it is 8.10%. Most affected regions in Italy are in programming area, Molise and Puglia, while Croatian Adriatic region has somewhat higher unemployment rate in comparison to state level.

In correlation with unemployment rate we can see employment rate that is decreasing yearly on each level for the observed period 2009-2013. While EU28 has decrease of employment by 0.60%, Italy 1.90% in Croatia this rate is much more drastic, 7.80%. Analysing data from 1st quarter of 2014 both Italy and Croatia are lagging behind EU28 with 42.4% of employed active population with methodological note that Croatia has 52.2% and Italy 49.1% of active population.

<b>Less than primary, primary and lower secondary</b>					
<b>Average</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>PA Italy</b>	<b>7.8%</b>	<b>8.9%</b>	<b>8.2%</b>	<b>10.6%</b>	<b>13.3%</b>
<b>PA Croatia</b>	<b>6.1%</b>	<b>6.0%</b>	<b>5.6%</b>	<b>5.7%</b>	<b>5.8%</b>
<b>Total PA</b>	<b>6.9%</b>	<b>7.3%</b>	<b>6.8%</b>	<b>8.0%</b>	<b>9.3%</b>
<b>Upper secondary and post-secondary non tertiary</b>					
<b>Average</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>PA Italy</b>	<b>7.0%</b>	<b>7.3%</b>	<b>7.7%</b>	<b>9.6%</b>	<b>11.5%</b>
<b>PA Croatia</b>	<b>13.6%</b>	<b>14.4%</b>	<b>14.0%</b>	<b>15.6%</b>	<b>15.9%</b>
<b>Total PA</b>	<b>10.5%</b>	<b>11.1%</b>	<b>11.0%</b>	<b>12.8%</b>	<b>13.9%</b>
<b>Short-cycle tertiary bachelor , master and doctoral</b>					
<b>Average</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>PA Italy</b>	<b>6.6%</b>	<b>6.2%</b>	<b>6.1%</b>	<b>7.5%</b>	<b>8.5%</b>
<b>PA Croatia</b>	<b>1.9%</b>	<b>2.2%</b>	<b>2.4%</b>	<b>3.1%</b>	<b>3.1%</b>
<b>Total PA</b>	<b>4.1%</b>	<b>4.1%</b>	<b>4.1%</b>	<b>5.2%</b>	<b>5.6%</b>

Table 38: Unemployment by education attainment (15-74). Source: Eurostat; CES; ISTAT

Data on unemployment by age and attainment shows that highest unemployment rate is among persons with less than primary, primary and lower secondary while persons with higher education are much likely to find jobs and pursue their carriers. In comparison Italy is much closer to the EU28 while Croatia has higher unemployment rates among persons with secondary education. When looking into NUTS 2 level in Italy again most difficult situation in programming area is in regions Molise and Puglia.

<b>Years</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>% Δ 2009/2013</b>
<b>15-24</b>						
EU28	19.9%	21.0%	21.4%	22.9%	23.3%	3.40%
ITALY	25.4%	27.8%	29.1%	35.3%	40.0%	14.60%
Veneto	14.4%	19.1%	19.9%	23.7%	25.3%	10.90%
Friuli Venezia Giulia	18.9%	18.0%	20.9%	30.5%	24.2%	5.30%
Emilia Romagna	18.3%	22.4%	21.8%	26.4%	33.3%	15.00%
Marche	22.6%	15.5%	23.8%	28.6%	36.1%	13.50%
Abruzzo	24.0%	29.5%	25.6%	33.0%	37.7%	13.70%
Molise	27.1%	30.2%	28.6%	41.9%	48.9%	21.80%
Puglia	32.6%	34.6%	37.1%	41.5%	49.7%	17.10%
CROATIA	25.1%	32.6%	36.1%	43.0%	49.7%	24.60%
Adriatic Croatia + KAZUP	2.87%	3.35%	3.46%	3.77%	4.56%	1.69%
Primorsko-goranska	1.9%	2.4%	2.4%	2.5%	3.0%	1.10%
Ličko-senjska	3.6%	4.2%	4.5%	4.8%	6.0%	2.32%
Zadarska	2.9%	3.3%	3.4%	3.8%	5.0%	2.06%
Šibensko-kninska	3.5%	4.1%	4.2%	4.7%	5.6%	2.10%

Splitsko-dalmatinska	3.7%	4.3%	4.6%	5.2%	6.0%	2.35%
Istarska	1.2%	1.4%	1.4%	1.5%	2.1%	0.91%
Dubrovačko-neretvanska	2.3%	2.8%	2.9%	3.1%	4.2%	1.93%
Karlovačka	3.7%	4.2%	4.3%	4.5%	4.5%	0.74%
<b>25-34</b>						<b>0.00%</b>
EU28	10.1%	11.1%	11.2%	12.3%	12.9%	2.75%
ITALY	10.9%	12.3%	12.0%	15.2%	18.2%	7.30%
Veneto	4.5%	5.8%	4.1%	6.8%	7.5%	3.00%
Friuli Venezia Giulia	5.9%	6.9%	6.6%	9.5%	12.5%	6.60%
Emilia Romagna	5.3%	7.9%	6.8%	8.8%	10.9%	5.60%
Marche	9.7%	8.4%	9.0%	13.3%	13.9%	4.20%
Abruzzo	12.3%	13.3%	14.6%	13.8%	17.3%	5.00%
Molise	14.9%	12.4%	17.8%	20.2%	25.9%	11.00%
Puglia	16.7%	18.6%	16.3%	21.0%	28.0%	11.30%
<b>CROATIA</b>	<b>10.3%</b>	<b>14.6%</b>	<b>18.9%</b>	<b>22.0%</b>	<b>20.9%</b>	<b>10.55%</b>
Adriatic Croatia + KAZUP	4.40%	5.11%	5.11%	5.43%	6.27%	1.87%
Primorsko-goranska	3.2%	4.1%	4.1%	4.4%	4.8%	1.64%
Ličko-senjska	4.7%	5.3%	5.3%	5.4%	6.5%	1.76%
Zadarska	4.9%	5.7%	5.6%	5.9%	6.7%	1.80%
Šibensko-kninska	5.4%	6.2%	6.0%	6.4%	7.4%	2.00%
Splitsko-dalmatinska	5.7%	6.6%	7.0%	7.7%	8.6%	2.97%
Istarska	1.9%	2.4%	2.4%	2.7%	3.6%	1.69%
Dubrovačko-neretvanska	4.1%	4.8%	4.7%	5.0%	6.3%	2.28%
Karlovačka	5.3%	5.8%	5.7%	5.9%	6.2%	0.86%
<b>35-44</b>						<b>0.00%</b>
EU28	7.3%	8.0%	8.0%	8.9%	9.3%	2.00%
ITALY	4.7%	5.2%	6.1%	8.7%	10.0%	5.30%
Veneto	4.1%	4.4%	3.4%	5.0%	5.9%	1.80%
Friuli Venezia Giulia	3.9%	5.0%	4.1%	5.5%	6.9%	3.00%
Emilia Romagna	4.1%	4.1%	4.0%	5.5%	7.1%	3.00%
Marche	4.7%	5.0%	5.5%	7.9%	10.7%	6.00%
Abruzzo	6.0%	7.4%	7.2%	9.4%	10.6%	4.60%
Molise	7.3%	6.2%	7.7%	9.4%	13.4%	6.10%
Puglia	10.5%	11.3%	12.3%	13.2%	16.0%	5.50%
<b>CROATIA</b>	<b>7.9%</b>	<b>1.1%</b>	<b>1.4%</b>	<b>12.9%</b>	<b>15.7%</b>	<b>7.75%</b>
Adriatic Croatia + KAZUP	4.06%	4.35%	4.18%	4.28%	4.95%	0.89%

Primorsko-goranska	2.3%	2.9%	2.9%	3.0%	3.5%	1.24%
Ličko-senjska	4.4%	4.6%	4.3%	4.3%	4.9%	0.56%
Zadarska	4.9%	5.0%	4.6%	4.7%	5.3%	0.48%
Šibensko-kninska	5.4%	5.5%	5.2%	5.3%	6.1%	0.68%
Splitsko-dalmatinska	5.3%	5.8%	6.0%	6.4%	7.2%	1.93%
Istarska	1.4%	1.7%	1.7%	1.7%	2.5%	1.07%
Dubrovačko-neretvanska	3.2%	3.5%	3.6%	3.7%	4.6%	1.40%
Karlovačka	5.6%	5.7%	5.2%	5.2%	5.4%	-0.20%

Table 39: Unemployment by age 15-44.

Source: Eurostat, CES, ISTAT

Years	2009	2010	2011	2012	2013	% 2009/2013	Δ
<b>45-54</b>							
EU28	6.50%	7.05%	7.05%	7.75%	8.10%	1.60%	
ITALY	4.50%	4.90%	5.00%	6.65%	8.00%	3.50%	
Veneto	3.10%	3.80%	3.00%	4.20%	5.70%	2.60%	
Friuli Venezia Giulia	4.70%	4.20%	3.50%	4.40%	4.70%	0.00%	
Emilia Romagna	3.30%	3.50%	3.60%	5.20%	6.20%	2.90%	
Marche	3.10%	3.60%	4.70%	6.10%	8.30%	5.20%	
Abruzzo	4.70%	4.30%	3.90%	7.10%	6.90%	2.20%	
Molise	4.80%	5.30%	5.80%	6.40%	8.30%	3.50%	
Puglia	7.40%	7.90%	6.80%	9.60%	14.00%	6.60%	
<b>CROATIA</b>	6.20%	7.55%	8.80%	9.95%	11.20%	5.00%	
Adriatic Croatia + KAZUP	5.23%	5.35%	4.99%	4.84%	5.31%	0.08%	
Primorsko-goranska	3.6%	3.9%	3.7%	3.6%	3.9%	0.30%	
Ličko-senjska	5.8%	5.8%	5.4%	4.9%	5.5%	-0.23%	
Zadarska	5.7%	5.7%	5.2%	5.1%	5.8%	0.11%	
Šibensko-kninska	6.1%	6.2%	5.8%	5.7%	6.1%	0.04%	
Splitsko-dalmatinska	5.4%	5.8%	5.9%	6.3%	7.0%	1.66%	
Istarska	2.4%	2.6%	2.5%	2.3%	2.9%	0.44%	
Dubrovačko-neretvanska	4.0%	4.1%	3.7%	3.5%	4.1%	0.10%	
Karlovačka	8.9%	8.7%	7.8%	7.2%	7.1%	-1.76%	
<b>55-64</b>						0.00%	
EU28	6.30%	6.90%	6.80%	7.40%	7.70%	1.40%	
ITALY	3.40%	3.60%	3.90%	5.30%	5.70%	2.30%	
Veneto	2.00%	3.00%	2.20%	3.60%	4.70%	2.70%	
Friuli Venezia Giulia	2.60%	3.20%	2.70%	2.70%	4.30%	1.70%	

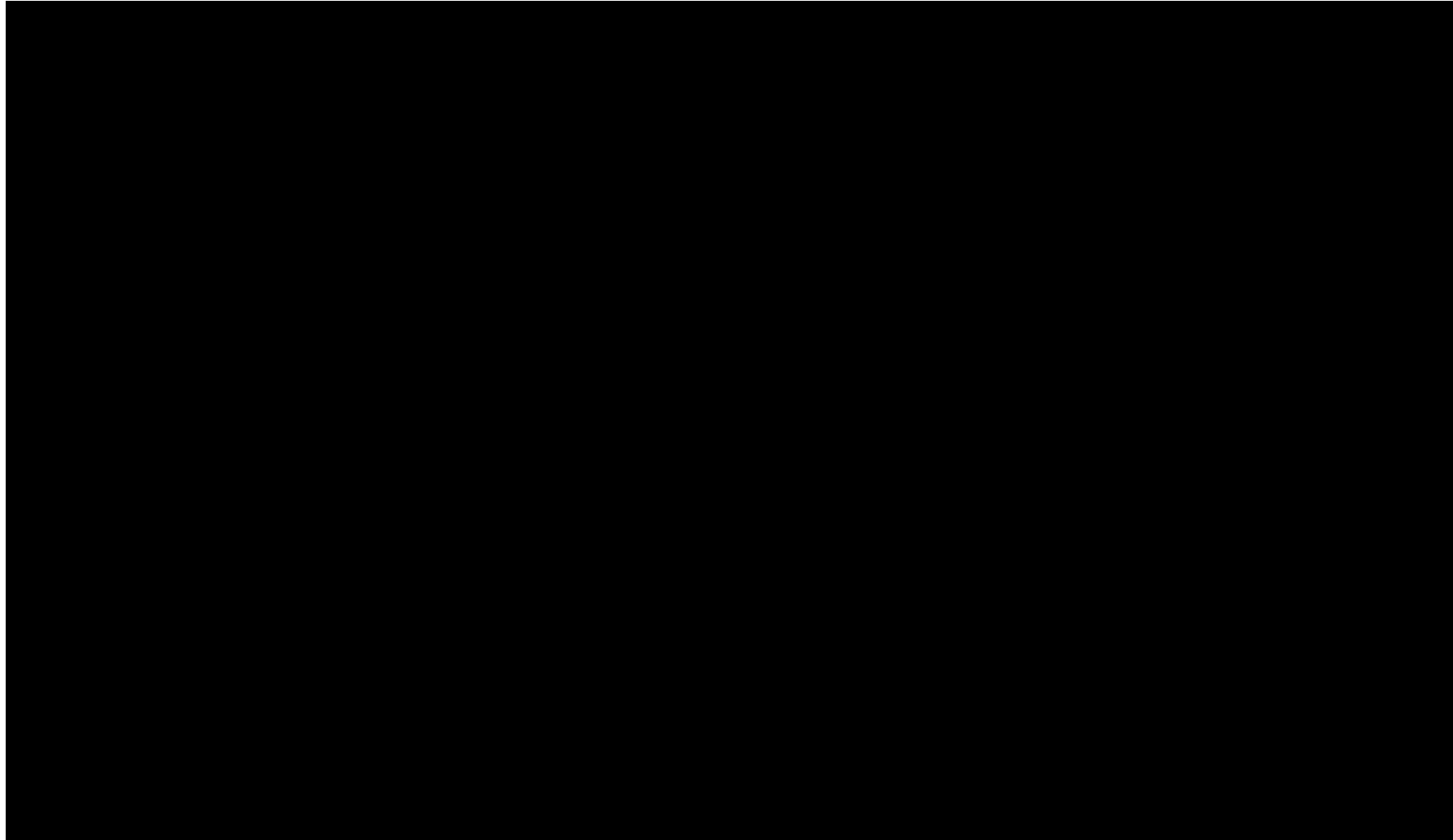
Emilia Romagna	2.40%	3.10%	3.00%	4.60%	4.40%	2.00%
Marche	4.20%	2.70%	2.40%	3.40%	4.40%	0.20%
Abruzzo	4.10%	3.90%	2.80%	5.90%	3.90%	-0.20%
Molise	2.20%	2.70%	2.30%	3.20%	7.30%	5.10%
Puglia	4.70%	3.90%	5.90%	7.40%	8.80%	4.10%
CROATIA	5.60%	7.00%	8.50%	10.70%	10.30%	4.70%
Adriatic Croatia + KAZUP	2.64%	2.86%	2.96%	3.11%	3.67%	1.03%
Primorsko-goranska	2.3%	2.6%	2.7%	2.9%	3.4%	1.12%
Ličko-senjska	2.8%	2.9%	2.7%	2.7%	3.6%	0.83%
Zadarska	3.5%	3.6%	3.8%	3.9%	4.3%	0.77%
Šibensko-kninska	2.4%	2.7%	2.8%	2.8%	3.4%	1.05%
Splitsko-dalmatinska	2.6%	3.0%	3.3%	3.7%	4.6%	1.98%
Istarska	1.2%	1.4%	1.5%	1.5%	1.9%	0.77%
Dubrovačko-neretvanska	2.1%	2.3%	2.4%	2.5%	3.0%	0.91%
Karlovačka	4.4%	4.6%	4.6%	4.8%	5.2%	0.78%

Table 40: Unemployment by age 45-64.  
Source: Eurostat, CES, ISTAT

Unemployment by age in programming area shows dramatic situation for age groups 15-24 and 25-34 with increase in unemployment over the years. The young population is mostly affected with rise of unemployment. In 2013 EU28 was 23,30%, with Italy 40,00% and Croatia 49,70%. In analysed period from 2009-2013 Croatia has an increase of 24.60% in youth unemployment while in Italy it is significantly lower with 14.60% but still high in comparison to EU28's 3.40%. As shown in the table above situation is similar in other age groups while rates between countries and even EU28 is similar in age group above 45-64. This problem has been recognized on the EU level and addressed through EU flagship initiative *Youth on the Move*, will as a part of Europe 2020 strategy, inclusive growth, try to enhance the performance of educational systems and facilitate the entry of young people into the labour market.

Employment in business entities according to NACE shows that on the EU28 level the highest share of employment is in the fields of public administration, defence, education and health 14.74%, while in Italy and Croatia most of the employed population is in the sector of commerce, transport and storage but also in accommodation and food sector.

When analysing trends, construction sector has suffered great loss in both countries showing decrease in employment rate in the sector for Croatia for 35,04% and in Italy for 19,24%. When looking into programming area it is significant to highlight employment in industry as significant for Veneto, Friuli-Venezia Giulia, Emilia-Romagna and Marche.



*Table 41: Employment in business according to NACE*

Years	2009	2010	2011	2012	2013	% Δ 2009/2013
EU28	15.40%	15.60%	15.50%	15.50%	15.50%	0.10%
ITALY	23.20%	23.40%	23.20%	23.10%	23.00%	-0.20%
CROATIA	14.70%	14.40%	13.60%	12.00%	-	-2.70%

Table 42: Opportunities for self-employment – self-employed in % of total employment.

Source: Eurostat

Opportunities for self-employment are traditionally good in Italy where small and medium size entrepreneurship and especially family business and crafts have long tradition. Trend in Italy is showing slight decrease however number is still high. As it is clear from the data Italy is much higher than EU28 while situation in Croatia is very alarming with strong declining trend. This is caused by generally low economic performance and lack of competitiveness in different sectors in Croatia in comparison with rest of the EU. On business environment and data on SME please see more details in the chapter on smart growth.

Employment in programming area is facing several problems. First of all alarming rate of unemployed youth but also severe loss of jobs in some, traditionally strong sectors such as construction. There is a rising issue in programming area with long-term unemployment which is probably caused by inadequate education background and skills for the labour market needs, lack of working experience and lack of motivation after long-term absence from the labour market, as well as lack of professional mobility and motivation to participate in training and life-long learning programmes. The long-term unemployed persons are often regarded as a work force without skills required for the fast-changing labour market demand. Long-term unemployment is higher among less educated and older unemployed persons. Again these problems have been recognized by Europe 2020 strategy through flagship initiative An Agenda for New Skills and Jobs which will try to modernize labour markets and empower people by developing their skills throughout the life cycle, with a view to increase labour participation and better match labour supply and demand, including through labour mobility.

#### *Health services, quality of life and social inclusion*

Years	2009	2010	2011	2012	2013	Δ 2009/2012
EU28	79.00	79.30	79.60	79.60	-	0.60
ITALY	81.10	81.50	81.60	81.60	-	0.50
Veneto	82.20	82.45	82.55	82.60	-	0.40
Friuli Venezia Giulia	81.60	82.85	82.00	82.00	-	0.40
Emilia Romagna	82.10	82.35	82.60	82.55	-	0.45
Marche	82.55	82.85	82.90	82.95	-	0.40
Abruzzo	81.20	81.70	81.80	82.10	-	0.90
Molise	81.65	81.65	81.65	82.00	-	0.35
Puglia	81.55	82.00	82.00	82.25	-	0.70
CROATIA	75.70	76.10	76.50	76.60	-	0.90
Adriatic Croatia	-	-	-	-	-	-

Table 43: Life expectancy at birth. Source: Eurostat

Life expectancy at birth in both countries as well as on the EU level is more or less stable with minimum growth. In world numbers it is high and demonstrating good quality of life and social and health care, but also other indicators of quality of life in certain areas. When it comes to analysing data on % of GDP in health, Croatia is above EU28 but also Italy with 9.20% in 2012, while both Italy and EU28 are on 7.30%.

Number of doctors is rising in all regions in programming area except for Abruzzo where there is a slight decrease for 1.06%. Croatia has more impressive growth in 2 years with 9.31% while in Italy trend is 2.51% of increase.

Number of hospitals is satisfactory however there is a high % of hospital migration e.g. transfer for recovery in Italy. Data for Croatia are not available.

In Croatia the healthcare system has problems with its efficiency and effectiveness. When looking into network of healthcare institutions, distribution and mobilisation of capacities at different levels of care, management systems including, quality standards, fragmentation, low level of ICT solutions in use one can conclude that adequate reform of health care system is needed in order to increase financial sustainability of the system. Additionally there is inadequate communication and information connectivity between different parts and finally in reduced access to services for the patients and unsatisfactory quality of healthcare provided. Overall territorial distribution of hospitals is good (90% of the total population live within 50 km from a hospital) but availability of care is often limited and uneven across the country, namely due to distance but also to the lack of health care workers. Problems become even more evident at county level where the lower quality and limited access to services, as well as the inappropriateness of local health care infrastructure tend to be more emphasized in particular at the level of primary care.

The situation is the same with the number of nurses and with the number of medical doctors per 100,000 inhabitants, which in 2010 was 569 but is still below the EU28 (782/100,000). In Croatia the total number of healthcare workers, nurses make up almost half of them (46%).

On-going functional and territorial rationalization of the healthcare system, as envisaged in the National Healthcare Development Strategy 2012–2020, is expected to provide the framework for the modernization of the system and to systematically address the identified key problems making the healthcare in Croatia more efficient and responsive to contemporary and future health care needs of population by equally focusing on the implementation of efficient investments into health care infrastructure and related services, and development of human resources.

The health care system in Italy is a regionally based national health service known as Servizio Sanitario Nazionale (SSN). It provides free of charge universal coverage at the point of service. While the national level ensures the general objectives and fundamental principles of the national health care system are met, regional governments in Italy are responsible for ensuring the delivery of a benefits package to the population. Health care facilities vary in terms of quality in different regions of Italy.

When it comes to the distribution of social care services<sup>19</sup>, Italy hosts 12.033 sites offering an overall number of 386.803 beds available (6,5 per 1000 residents). From the territorial point of view, the picture is very heterogeneous: the offer reaches the highest levels in the northern regions where it concentrates 67% of the total number of beds (9.5 per 1000 residents) while being the minimum in the South with 7% (only 3 beds per 1000

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<sup>19</sup> Source: Italian Partnership Agreement 2014



residents). As for the type of users, the majority are elderly (76%), followed by adults (20%) and children (5%).

Years	2009	2010	2011	2012
EU 27	23.20%	23.70%	24.30%	24.80%
ITALY	24.70%	24.50%	28.20%	29.90%
CROATIA	-	30.70%	32.30%	32.30%

Table 44: % of people in danger of poverty. Source: Eurostat

Both countries are above EU28 when it comes to risk of poverty. High unemployment and low labour market participation, coupled with raising costs of living, have increased the share of population living at risk of poverty or social exclusion both in Italy and in Croatia in 2012. Different studies are showing that older women are particularly vulnerable, aged 65 or above were at higher risk of poverty or social exclusion in 2012 (compared with men of the same age). These figures are rising for women aged 75 or above. The pension system, in combination with the relatively short duration of working lives (to longer life span) does not seem to ensure adequate protection in the old age and address effectively the challenge of aging population. Europe 2020 has addressed these problems through its flagship initiative European Platform against Poverty with its aim to ensure social and territorial cohesion such that the benefits of growth and jobs are widely shared, and people experiencing poverty and social exclusion are enabled to live in dignity and take an active part in society.

## Education

Education at all levels but especially higher education and training are becoming more important in globalizing economy where all countries that want to move up their economies towards more competitive and sustainable systems need to invest in its future workers.

Country/region	Type of educational institution		
	Primary	Secondary	Higher
ITALY			
Veneto	1,407	959	4
Friuli Venezia Giulia	368	272	2
Emilia Romagna	949	701	4
Marche	445	373	4
Abruzzo	438	344	3
Molise	139	131	1
Puglia	741	849	4
CROATIA	887	487	1,374
Adriatic Croatia	336	200	536
Primorsko-goranska	58	42	100
Ličko-senjska	15	5	20
Zadarska	37	22	59

Šibensko-kninska	23	13	36
Splitsko-dalmatinska	95	56	151
Istarska	48	26	74
Dubrovačko-neretvanska	31	19	50
Karlovačka	29	17	1

Table 45: Educational institutions. Source: Eurostat; MESS Croatia

Both countries as well as programming area are well covered with network of educational institutions at all levels. Both countries, Italy more than Croatia, have long tradition of quality education and accessibility of educational institutions. However some of the problems are lack of resources for modernisations of these institutions, lack of sufficient number of educational staff, lack of practical courses and internships but also lack of cooperation with business and other sectors. EU28 in time period 2009-2012 has trend of increase in number of students with 3,25%, Croatia 13,08%, while Italy has decline of 4.27%.

Years	2009	2010	2011	2012	2013	% Δ 2009/2012
EU28	19,609,400	19,991,100	20,283,300	20,245,900	-	3.25%
ITALY	2,011,700	1,980,400	1,967,600	1,925,900	-	-4.27%
CROATIA	139,100	149,900	154,000	157,300	-	13.08%

Table 46: Increase/decrease of students in the last 10 years. Source: Eurostat

Years	2009	2010	2011	2012	2013	% Δ 2009/2013
<b>Less than primary, primary and lower secondary</b>						
EU28	31.50%	30.80%	29.70%	28.80%	27.90%	-3.60%
ITALY	47.00%	46.20%	45.40%	44.20%	43.40%	-3.60%
CROATIA	25.90%	25.70%	25.30%	24.00%	23.80%	-2.10%
<b>Upper secondary and post-secondary non tertiary</b>						
EU28	46.50%	46.50%	46.70%	46.70%	46.80%	0.30%
ITALY	40.20%	40.80%	41.40%	41.90%	42.20%	2.00%
CROATIA	59.30%	58.80%	59.40%	60.30%	59.70%	0.40%
<b>First and second stage of tertiary education</b>						
EU28	22.00%	22.70%	23.60%	24.50%	25.30%	3.30%
ITALY	12.80%	13.00%	13.10%	13.80%	14.40%	1.60%
CROATIA	14.80%	15.50%	15.30%	15.70%	16.50%	1.70%

Table 47: Ratio of the population aged over 15 by education attainment (15-64). Source: Eurostat

Country	%
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ITALY	6.74%
CROATIA	2.30%

Table 48: Adults (25-64) attending lifelong learning educational or professional programmes (% of 25-64 - 2012). Source: EUROSTAT

Both countries have low level of adults attending lifelong learning educational or professional programmes even though they are available in both countries and at all levels both public (free of charge through employment services and other publicly financed programmes) and commercial (with different charging fees depending on type of the program and its complexity. When comparing two countries Croatian share is much lower than Italian.

### ***Cooperation for efficient and effective PA***

As described throughout the Territorial Analysis, programme territory consists of 7 NUTS 2 regions in Italy and 8 NUTS 3 regions in Croatia (7 as a integral part of NUTS 2 Adriatic Croatia region and one part of Continental Croatia region). Croatian area has 65 towns and 177 municipalities, while Italian part has 37 provinces (NUTS 3) and 2085 municipalities.

In general, Italian regions have stronger role in decentralized decision making and management in comparison to Croatian counties, especially in the fields of energy, environment and transport. Therefore, when planning types of activities under the Cooperation Programme it is important to understand those levels of governance.

Regional and local administration, institutions and other stakeholders in the programme area have extensive experience in management of and participation in cross-border projects. While Italian institutions have long term experience, Croatian started with capacity building through Neighborhood Programmes in early 2000. With increased financial allocations and bigger number of projects, capacities were improved in the short period of time.

In the last CBC programme - IPA Adriatic 2007 – 2013, there were 386 joint projects involving Italian and Croatian partners:

<b>Italy Programme Area</b>	<b>254</b>
Veneto	42
Friuli Venezia Giulia	33
Emilia Romagna	38
Marche	48
Abruzzo	34
Molise	16
Puglia	43
<b>Croatia Programme Area</b>	<b>132</b>
Primorsko-goranska	26
Ličko-senjska	0
Zadarska	4
Šibensko-kninska	5
Splitsko-dalmatinska	38
Istarska	38
Dubrovačko-neretvanska	21
Karlovačka	0

<b>TOTAL PROGRAMME AREA</b>	<b>386</b>
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Table 49: Distribution of partners in IPA CBC 2007 - 2013

Experiences in cooperation and joint initiatives are many. As seen in the table above all participating regions, local and regional governmental level have worked together in the previous programming period and have mainly dealt with capacity building activities such as trainings, different platforms and forums; etc. Also many projects have produced outputs that are still in use in sectors of tourism, environment, support to SMEs, culture etc., such as joint tourism initiatives, plans and event itineraries, joint marketing or development studies and plans. In last 10 years of intensive cooperation public administration in two countries, especially in programme area has exchanged practices and tools in working towards more efficient and effective public service. Both countries and representatives of regional level have experience in participating in programming exercises as members of Task Force groups or simply as participants of consultative workshops. Additionally representatives of local and regional level were also participating in JMC of previous IPA Adriatic programme creating joint decision making atmosphere and experiencing true cross border cooperation in deciding on relevant project to be supported but also on other strategic issues.

**1.1.1.7.S.W.O.T.**

**SMART GROWTH**

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Available institutional setup for R&amp;D</li> <li>• Strong tourism sector</li> <li>• Tradition and experience in shipbuilding</li> <li>• Strong tradition and experience in fisheries with positive impact on national exports and employment in local communities</li> <li>• SME sector density</li> </ul>	<ul style="list-style-type: none"> <li>• Low level of competitiveness on international markets especially in traditional sectors and decrease of GDP</li> <li>• Programme area GDP at 67% of EU28 with Croatian area at 42% of Italian</li> <li>• GERD below EU28 (2.07%): Italy – 1.27%, Croatia 0.75%</li> <li>• No. of EPO patents below EU28, especially low on Croatian side</li> <li>• Weak cooperation of scientific and real sector, especially SMEs</li> <li>• Seasonality of tourism and lack of appropriate infrastructure in some fields of touristic activity</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• EU policies which fund cooperation between R&amp;D institution and SMEs</li> <li>• Available innovative sustainable technologies for the fishing sector</li> <li>• Role of ICT in SME innovation, e-business growth, improved access to information and education in remote/rural areas.</li> <li>• Aquaculture as growing sector</li> <li>• Blue economy recognized by the EU policies and strategies as a key sector</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous economic crisis (also affecting manufacturing)</li> <li>• Lack of interest of entrepreneurs for R&amp;D and innovation</li> <li>• Continuous lack of investment of SMEs in innovation in the programme area</li> <li>• Continuous lack of competitiveness of companies in shipbuilding</li> <li>• Competition among stakeholders of the coastal area in key sectors as fishing, tourism</li> <li>• Global competition on traditional manufacturing sectors and on tourism sectors</li> </ul>
NEEDS AND CHALLENGES	
<ul style="list-style-type: none"> <li>• There is a need to increase the level of competitiveness on international markets of SMEs by fostering found mechanisms of innovation and creating a critical mass</li> <li>• The cooperation between the research field and business operators in fields of tourism, ship building fishery and aquaculture shall be enhanced</li> <li>• There is a need to secure availability of high-skilled human resources in key economic sectors to strengthen development patterns</li> <li>• There is a need to facilitate involvement of SMEs in international networks for research</li> </ul>	

## SUSTAINABLE GROWTH

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Favorable conditions for RES from solar and wind energy</li> <li>• NATURA 2000 sites and other protected areas potential for tourism</li> <li>• Rich cultural heritage as a potential for tourism</li> <li>• Good quality of air and water</li> <li>• Adriatic being cleanest sea in Mediterranean</li> <li>• Programme area/both countries participating in common and globally uniform ballast water management (BWM) approach.</li> <li>• </li> </ul>	<ul style="list-style-type: none"> <li>• Lack of low carbon development strategies and actions aiming at Kyoto protocol targets</li> <li>• Dependence on energy sources from abroad/import of gas and oil</li> <li>• Lack of funding for RES</li> <li>• Unused capacities of RES</li> <li>• Existing pollution of the Adriatic Sea</li> <li>• Insufficient connection to public sewage systems (especially in Croatia)</li> <li>• Inefficient and fragmented waste management system</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Further preservation of biodiversity</li> <li>• Potential for joint capacity in management of coastal and marine resources</li> <li>• Joint risk management and prevention of damage caused by natural disasters</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous pollution of the Adriatic Sea</li> <li>• Growing trend of natural disasters in the programme area (fire, drought)</li> </ul>
NEEDS AND CHALLENGES	
<ul style="list-style-type: none"> <li>• Dependency on gas and oil is still high and needs to be reduced</li> <li>• There is a need to increase funding and capacity of use of renewable resources especially in rural and isolated area</li> <li>• There is a need to raise awareness on benefits of energy efficiency in housing</li> <li>• There is a need to decrease road traffic congestion in urban areas especially along the coast, pressured by seasonal tourism</li> <li>• Adaptive capacity to climate change shall be improved</li> <li>• Coastal and marine resources represent assets that shall be tackled by joint actions</li> <li>• Common characteristics of cultural heritage and shared marine natural resources can support a higher quality tourism</li> <li>• There is potential for more systemic, integrated and efficient maritime connections from/to the eligible territories and between them</li> <li>• There is potential for additional cooperation between ports ensuring integrating information (ICT) and ticketing (passengers transport)</li> </ul>	

**SUSTAINABLE GROWTH**

<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"> <li>• Tradition of mobility of workforce Croatia – Italy in programme area</li> <li>• Strong network of educational institutions including universities</li> <li>• Good accessibility to education and training</li> <li>• Good experiences and long tradition of cooperation among local and regional governments in programming area</li> </ul>	<ul style="list-style-type: none"> <li>• High unemployment rates in programme territory – higher in Croatia</li> <li>• Youth as especially vulnerable unemployed group</li> <li>• Education system does not match labour market needs</li> <li>• Low rates of workforce with higher education</li> <li>• Low level of adults attending LLL</li> <li>• Increased % of population in risk of poverty in programme area</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>• Good opportunities for and tradition in self-employment, especially in Italy</li> <li>• Improved mobility of workforce in programme area</li> <li>• Specialization of workforce for specific business niches in Blue Growth</li> </ul>	<ul style="list-style-type: none"> <li>• Growing trend in number of students exiting education process in Italy despite the fact that unemployment rates by education attainment are showing highest employment rates among persons with high/higher education</li> <li>• Continuous growth of unemployed due to economic crisis</li> <li>• Lack of responsiveness of educational sector to change and modernization</li> <li>• Continuous growth of population in risk of poverty</li> </ul>
<b>NEEDS AND CHALLENGES</b>	
<ul style="list-style-type: none"> <li>• There is a need to concentrate efforts for raising employment rate of the cooperation area</li> <li>• There is potential for an increase of the specialization of the workforce in specific sectors of the blue economy in which the area has competitive advantage</li> <li>• There is a need to support “brain circulation” amongst research institutes/academies and companies as a condition for developing cooperation in the field of blue technologies</li> <li>• Specific training to human resources employed in the tourism sector can increase the quality of the services offered</li> </ul>	

### *1.1.1.8. Thematic scope of the programme*

The above specified territorial needs and common challenges for the Italy - Croatia area are reflected in the scope of the programme, following the principles of: strategic focus, thematic concentration, alignment with the Europe 2020 strategy objectives and the best added value in the context of cross-border cooperation - taking into account the EU Strategy for the Adriatic Ionian Region as well as EUSDR and EUSALP.

In the period of 2014-2020, the Italy - Croatia Programme will focus on the following thematic objectives (TO) and investment priorities (IP):

TO 1 - Strengthening research, technological development and innovation

- IP 1 (b) – promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies

TO 4 - Supporting the shift towards a low-carbon economy in all sectors

- IP 4 (c) - supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector
- IP 4 (e) - promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures

TO 5 - Promoting climate change adaptation, risk prevention and management

- IP 5 (a) - supporting investment for adaptation to climate change, including ecosystem-based approaches
- IP 5 (b) - promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems

TO 6 – Preserving and protecting the environment and promoting resource efficiency

- IP 6 (c) – conserving, protecting, promoting and developing natural and cultural heritage
- IP 6 (d) – protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure
- IP 6 (f) –promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution

TO 7 - Promoting sustainable transport and removing bottlenecks in key network infrastructures

- IP 7 (c) – developing and improving environment-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility



### *1.1.1.9.Strategic orientation of the programme*

The central location of the sea basin (affecting the transportation patterns and socio-economic processes in the programme area), the maritime character of historical trade relations, the joint asset of natural areas and cultural heritage offering a unique competitive advantage, the shared importance of economy branches utilising the rich natural sea based resources are illustrative fields that point at an essential role of the blue and green economy for the sustainable regional growth in the cooperation area. The potential of cooperative networks in the limited but existing area's knowledge-intensive services and research-intensive products, the availability of business actors potentially interested in investing and promoting clean and energy efficient technologies are exemplary assets shared by the programme regions that may be better deployed for the prosperity of blue and green economy sectors. At the same time, the area shows considerable disparities in the socio-economic characteristics, exemplified by urban-rural, and north-south divides in the economic attainment of the SME sector, innovation capacity and labour market trends as well as east-west mobility patterns that need to be addressed by joint actions across the borders.

These issues are at the core of the strategic intervention by the Italy - Croatia Programme, driven by the overall objective: **"To increase the prosperity and the blue growth potential of the area by stimulating cross-border partnerships able to achieve tangible changes"**.

By directing the intervention to the stimulation of blue growth by means of joint cross-border actions between the programme regions, the programme will:

- maximise the impact of the programme towards tangible results;
- show complementarities to other EU-funded interventions that aim to reinforce economic, social and territorial cohesion of the programme regions;
- meet the priorities of smart, sustainable and inclusive growth of the Europe 2020 Strategy;
- support the implementation of the European Union Strategy for the Adriatic-Ionian Region and the Integrated Maritime Policy;
- continue and strengthen collaboration between institutions, organisations and networks facilitated by the SEE, MED and IPA CBC 2007-2013.

"Blue Growth" is part of the Europe 2020 strategy and addresses the economic potential of the oceans, seas and coasts for sustainable growth and jobs, to be developed in harmony with the marine environment and through cooperation between public and private partners, including SMEs. In concordance with the European Commission's Communication on 'Blue Growth - Opportunities for Marine and Maritime Sustainable Growth', the term "blue economy" can be related to the following sectors:

- Blue energy – offshore wind power, tidal and wave power;
- Aquaculture;
- Maritime, coastal and cruise tourism;
- Sea shipping;
- Marine mineral resources (seabed mining);
- Marine biotechnology (e.g. resources in the pharmaceutical and cosmetic industries);
- Desalination;
- Coastal protection;
- Maritime security & surveillance and environmental monitoring.

The two dimensions are defined as follows:

- “maritime” is defined as human activities which take place in or on the sea area of a programme, take place on the coastlines and are influenced by the sea area of the programme or use/ depend upon the natural resources found within the sea area of a programme. For example: shipping, coastal tourism, shoreline and sea recreation, fishing, etc.
- “marine” relates to the natural features and resources of the sea within a programme area. For example: habitats and ecosystems, biodiversity (wildlife and marine species), estuaries, reefs, the seabed, mineral deposits, etc.

Applied to the sectors most relevant for the Italy - Croatia area, the blue growth context is, consequently, visible in the profile of the chosen thematic objectives and intervention priorities – translated to the programme priority axes and specific objectives.

The challenge for programme is that maritime issues are not the subject of a specific TO but rather should be seen as a cross-cutting issue when considering the 11 TOs. This creates the challenge of interpreting, prioritising and integrating the maritime dimension in the choice of TOs for this programme.

#### *1.1.1.10. Priority axes and specific objectives of the programme*

The Italy - Croatia Programme is composed of five priority axes responding to the identified key assets and challenges. They correlate with the thematic objectives under ERDF and – at the level of specific objectives – with the investment priorities.

**PRIORITY AXIS 1: Innovation and internationalization**

- Specific Objective 1.1: Enhance innovation capacity by cooperation of research and business players in the sectors of the blue economy
- Specific Objective 1.2: Increase the presence in international innovative markets of blue sector SMEs of the area through joint cross-border actions

**PRIORITY AXIS 2: Low-carbon**

- Specific Objective 2.1: Increase the energy efficiency and the use of renewable energy solutions in housing and public infrastructures in rural, sparsely populated areas
- Specific Objective 2.2: Improve the capacities for mobility planning in urban areas to lower traffic congestion

**PRIORITY AXIS 3: Climate change and risk management**

- Specific Objective 3.1: Increase the adaptation capacity to climate change in the cooperation area
- Specific Objective 3.2: Increase the capacity for joint risk management in the cooperation area

**PRIORITY AXIS 4: Environment and culture heritage**

- Specific Objective 4.1: Increase the development of the area’s natural and cultural heritage assets also as support to sustainable tourist destinations
- Specific Objective 4.2: Enhance the management of the sea natural resources by public actors for a better environment

- Specific Objective 4.3: Improve the environmental conditions by use of innovative technologies

**PRIORITY AXIS 5: Connectivity**

- Specific Objective 5.1: Improve the quality and environmental sustainability of maritime and coastal transport services in the area

The table below (Table 2) presents topical interrelations of the Italy - Croatia Programme architecture (priority axes and specific objectives) with the ERDF framework, and the liaisons with the strategic reference documents at the EU and macroregional level.

More detailed elaboration of each priority axis is laid down in section 2.

Selected thematic objective	Selected investment priority	Programme Specific Objective	EUSAIR	EUSDR	EUSALP	Integrated Maritime Policy
<p><b>Thematic Objective 1</b> Strengthening research, technological development and innovation (...)</p>	<p><b>Investment priority 1b</b> Promoting business investment in innovation and research and developing links and synergies between enterprises, R&amp;D centres and higher education (...)</p>	<p>- Enhanced innovation capacity by cooperation of research and business players in the sectors of the blue economy.  - Increased presence of blue sector SMEs from the area on international innovative markets through joint cross-border actions.</p>	<p>P1 Blue Growth P3 Environmental quality P4 Sustainable tourism</p>	<p>PA7 Knowledge society PA8 Competitiveness PA9 People and Skills</p>		
<p><b>Thematic Objective 4</b> Protecting the environment and promoting resource efficiency</p>	<p><b>Investment priority 4c</b> supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector</p>	<p>Increase the energy efficiency and the use of renewable energy solutions in housing and public infrastructures in rural, sparsely populated areas</p>	<p>P2Connecting the region P3 Environmental quality</p>	<p>PA2 Energy</p>		
	<p><b>Investment priority 4e</b> promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable</p>	<p>Improve the capacities for mobility planning in urban areas to lower traffic congestion</p>	<p>P2Connecting the region P3 Environmental quality</p>	<p>PA2 Energy PA1B Mobility-rail-road-air</p>		

	multimodal urban mobility and mitigation-relevant adaptation measures					
<b>Thematic Objective 5</b> Promoting climate change adaptation, risk prevention and management	<b>Investment priority 5a</b> Supporting investment for adaptation to climate change, including ecosystem-based approaches	Increase the adaptation capacity to climate change in the cooperation area	P3 Environmental quality	PA5 Environmental risk		
	<b>Investment priority 5b</b> Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems	Increase the capacity for joint risk management in the cooperation area	P1 Blue Growth P3 Environmental quality	PA5 Environmental risk		
<b>Thematic Objective 6</b> Protecting the environment and promoting resource efficiency	<b>Investment priority 6c</b> Conserving, protecting, promoting and developing natural and cultural heritage	Increase the development of the area's natural and cultural heritage assets also as support to sustainable tourist destinations	P3 Environmental quality P4 Sustainable tourism	PA3 Culture and tourism		
	<b>Investment priority 6d</b> Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure	Enhance the management of the sea natural resources by public actors for a better environment	P1 Blue Growth P3 Environmental quality	PA6 Biodiversity, landscapes, quality of air and soil		

	<p><b>Investment priority 6f</b> Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution</p>	<p>Improve the environmental conditions by use of innovative technologies</p>		<p>PA6 Biodiversity, landscapes, quality of air and soil</p>		
<p><b>Thematic Objective 7</b> Promoting sustainable transport and removing bottlenecks in key network infrastructures</p>	<p><b>Investment Priority 7c</b> Developing and improving environment-friendly (including low-noise) and low-carbon transport systems including [...] inland waterways and maritime transport, ports [...] multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility</p>	<p>Improve the quality and environmental sustainability of maritime and coastal transport services in the area</p>	<p>P2Connecting the region</p>	<p>PA1B Mobility-rail-road-air</p>		

Table 50: Overview of the coherence of the programme strategy with

### ***1.1.2. Justification for the choice of thematic objectives and corresponding investment priorities***

The choice of Thematic Objectives (TO) and Investment Priorities (IP) as set out in Section 2 has been carried out using the following criteria:

- the **relevance** of the TOs to the territorial needs and most important challenges identified under each of the overarching objectives of the EU2020 (territorial and statistical evidence) within the area taking into consideration ;
- the **context**, namely the regulatory framework offered and the added value of adopting a CB approach for the implementation of actions under the TO, to address issues identified under the objective in the given financial envelope;
- the **past** lessons drawn from the IPA CBC, SEE and MED programmes and activities;
- the opportunity of **differentiating/characterising** the programme from the other territorial cooperation instruments overlapping the area, taking into account their respective transnational or cross-border features and financial endowments, with a view to maximizing synergies and avoiding duplications.

Additionally, to maintain a strong focus on thematic concentration and limit the number of IPs, complementarities and potential synergies between IPs under different TOs have been widely explored and used. Elements of TO3 (ICT), TO10 (Education) and TO11 (Governance) have to be therefore considered as cross-cutting.

See the following table.

Selected thematic objective	Selected investment priority	Justification for selection
<p><b>Thematic Objective 1</b> Strengthening research, technological development and innovation (...)</p>	<p><b>Investment priority 1b</b> Promoting business investment in innovation and research and developing links and synergies between enterprises, R&amp;D centres and higher education (...)</p>	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Smart Growth” and in line with all EU macro regional strategies relevant for the area</li> <li>• Need to improve competitiveness and internationalisation of SMEs confronted to worldwide competition (tourism, creative industries, fisheries, aquaculture)</li> <li>• Need to stimulate the adoption of innovation and technologies by the SME in the blue sector</li> <li>• There are several assets by tradition and experience in shipbuilding that need to be exploited for overcoming the structural problems and lack of global competitiveness</li> <li>• There is a need to develop skills of human resources in innovative sectors meeting SMEs demand</li> </ul>
<p><b>Thematic Objective 4</b> Protecting the environment and promoting resource efficiency</p>	<p><b>Investment priority 4c</b> supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector</p>	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Sustainable Growth” and in line with all EU macro regional strategies relevant for the area</li> <li>• There is a need to raise awareness on the benefits of renewable resources and adoption of energy efficiency techniques in housing in coastal rural and isolated areas</li> <li>• A better mapping of available and potentially available renewable might be beneficial for the development of the area</li> </ul>
	<p><b>Investment priority 4e</b> promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant</p>	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Sustainable Growth” and in line with all EU macro regional strategies relevant for the area</li> <li>• The characteristics of the area (especially the coastal side) call for action to reduce seasonal traffic congestion especially in urban areas</li> <li>• There is a need for awareness raising on the benefits of shifting mobility habits from private car to public transport</li> </ul>



	adaptation measures	
<b>Thematic Objective 5</b> Promoting climate change adaptation, risk prevention and management	<b>Investment priority 5a</b> Supporting investment for adaptation to climate change, including ecosystem-based approaches	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Sustainable Growth” and is in line with all EU macro regional strategies relevant for the area</li> <li>• Coastal areas are one of the most affected by the impact of climate change, hence preparation for adaptation to its consequences are of outmost importance</li> </ul>
	<b>Investment priority 5b</b> Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Sustainable Growth” and is in line with all EU macro regional strategies relevant for the area</li> <li>• The programme area reveals similar risk factors to environmental disaster (droughts, fires)</li> </ul>
<b>Thematic Objective 6</b> Protecting the environment and promoting resource efficiency	<b>Investment priority 6c</b> Conserving, protecting, promoting and developing natural and cultural heritage	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Sustainable Growth” and in line with all EU macro regional strategies relevant for the area</li> <li>• High cultural and environmental resources in the regions threatened by human activities</li> <li>• High pressure of tourism activities and urbanisation, especially in the coastal area</li> <li>• Cross-border cooperation potential to develop joint activities to improve visiting and living environment by conserving, protecting and developing natural and cultural resources</li> </ul>
	<b>Investment priority 6d</b> Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Sustainable Growth” and is in line with all EU macro regional strategies relevant for the area</li> <li>• Since an important part of the Adriatic Sea is beyond national jurisdiction limits, cross-border cooperation is vital in order to ensure an efficient protection of marine biodiversity</li> </ul>

	<p><b>Investment priority 6f</b></p> <p>Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution</p>	<ul style="list-style-type: none"> <li>• Anthropogenic polluting activities of the marine environment require coordinated interventions, which must find new, innovative methods due to the increased human activity</li> </ul>
<p><b>Thematic Objective 7</b></p> <p>Promoting sustainable transport and removing bottlenecks in key network infrastructures</p>	<p><b>Investment Priority 7c</b></p> <p>Developing and improving environment-friendly (including low-noise) and low-carbon transport systems including [...] inland waterways and maritime transport, ports [...] multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility</p>	<ul style="list-style-type: none"> <li>• Supports Europe 2020 objective of “Sustainable Growth” and in line with all EU macro regional strategies relevant for the area</li> <li>• Need to reduce the environmental impact of transport by increasing multimodality and shift to most appropriate environmental friendly modes of transport</li> <li>• Need to improve the connectivity between the two sides of the sea for a better accessibility of the area by better data sharing and coordination</li> </ul>

Table 51: A synthetic overview of the justification for the selection of thematic objectives and investment priorities

*1.2. JUSTIFICATION FOR THE FINANCIAL ALLOCATION*

To be developed

## SECTION 2. PRIORITY AXES

(Reference: points (b) and (c) of Article 8(2) of Regulation (EU) No 1299/2013)

### 1.3. SECTION 2.A. DESCRIPTION OF THE PRIORITY AXES OTHER THAN TECHNICAL ASSISTANCE

#### 2.A.1. Priority Axis 1

ID	PRIORITY AXIS 1
<b>Title</b>	<p><b><i>Innovation and internationalization</i></b></p> <p>The analysis has highlighted that the programme area GDP is significantly lower than the average of EU 28. Same critical situation is reported in relation to the number of EPO patents. Actions to improve this framework are needed, especially while bringing innovation to the blue sector fields that have been considered to be of common interest and are currently key elements of the EU agenda: shipbuilding, fishery, aquaculture, marine biotechnology.</p> <p>Innovation supported by public and private investments is key to Europe's 2020 strategy. It can greatly enhance company competitiveness and boost the creation of new jobs.</p> <p>The Priority Axis 1 aims to strengthen innovation capacities of public and private actors of the regions concerned and support smart and sustainable growth through the achievement of the TO 1.</p>

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development

#### 2.A.2. Justification for the establishment of a priority axis covering more than one thematic objective

*Not applicable*

#### 2.A.3. Fund and calculation basis for the Union support

Fund	ERDF
Calculation Basis (total eligible expenditure or eligible public expenditure)	<b>To be decided</b>

## 2.A.4. Investment priority 1.b

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

### INVESTMENT PRIORITY 1.b

*“Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies;”*

#### 2.A.5.1 Specific objective 1.1

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

ID	1.1
<b>Specific Objective</b>	Enhance innovation capacity by cooperation of research and business players in the sectors of the blue economy
<b>Expected results</b>	The intended result is to reach a better and reinforced capacity for innovation in the cross-border area. In particular, it aims to reinforce the organisational framework conditions for delivering innovation by introducing and adopting common approaches, collaboration arrangements, joint structures and policy tools supporting innovation capacity. The improved capacity for innovation will enhance the cooperation in the field of innovation by stimulating the cooperation of public and private actors, civil society and research entities

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>20</sup> (2023) <i>100 char. max</i>	Source of Data <i>200 char. max</i>	Frequency of reporting <i>100 char. max</i>

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<sup>20</sup>Target values can be qualitative or quantitative

### 2.A.5.2 Specific objective 1.2

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>1.2</b>
<b>Specific Objective</b>	Increase the presence in international innovative markets of blue sector SMEs of the area through joint cross-border actions
<b>Expected results</b>	The intended result is to increase the capacities of innovative companies to engage in international activities by directly contributing to the development of new or enhanced products, processes and services that will foster international competitiveness

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>21</sup> (2023) <i>100 char. max</i>	Source of Data <i>200 char. max</i>	Frequency of reporting <i>100 char. max</i>

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<sup>21</sup>Target values can be qualitative or quantitative



## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1. description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority1.b</b>	<b><i>“Promoting business investment in R&amp;I, developing links and synergies between enterprises, research and development centres and the higher education sector (...)”</i></b>
<p>The actions that are foreseen to be supported under this IP will improve the level of cooperation between existing and new support services for innovation and research, as well between research institutes in the region strengthen entrepreneurship and clusters’ culture and promote new business model expansion able to reach a critical mass to tackle international challenges.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objectives’ goals:</p> <ul style="list-style-type: none"> <li>• modernization and rationalization of production processes, processing and marketing;</li> <li>• joint development of supply chains by investing in research and innovation;</li> <li>• development of cross-border clusters dedicated to the field of blue economy;</li> <li>• setting up of systems, networks and integrated structures with a technological content oriented towards transfer of knowledge (technological transfer) and smart and digital economy;</li> <li>• definition of programs, actions and tools for the integration of the supply chains of fisheries and aquaculture with related activities in the area;</li> <li>• design / testing of innovative processes in aquaculture with special reference to species, management techniques and breeding;</li> <li>• piloting of new tools for boats and ships;</li> <li>• developing and piloting eco-innovative tools and processes in the shipyard systems;</li> <li>• awareness rising actions in the society of blue growth social innovation opportunities and challenges (i.e. e-health, education, digital divide, start up, labour market change);</li> <li>• supporting the international visibility of the branches and districts already operating;</li> <li>• development of marine and coastal Tourism 2.0 by mean of innovative services in the area;</li> <li>• awareness rising actions for better understanding of intellectual property rights;</li> <li>• increasing skills of human resources in the blue economy sector (particularly SMEs) regarding novel technologies (e.g. eco-innovation, low-carbon technologies, ICT, key enabling technologies, etc.), innovative products, services or processes.</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption “Indicative types of beneficiaries”;</li> </ul> <p><b>Indicative types of beneficiaries</b></p> <ul style="list-style-type: none"> <li>• local, regional and national public authorities, regional development agencies,</li> </ul>	

chambers of commerce, enterprises (including SMEs), universities, associations, technology transfer institutions, research institutions, centers of R&D excellence, NGOs, innovation agencies, business incubators, cluster management bodies, education and training organisations as well as social partners and labor-market institutions

*2.A.6.2. The guiding principles for the selection of operations*

*(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)*

<b>Investment priority 1.b</b>	<b><i>“Promoting business investment in R&amp;I, developing links and synergies between enterprises, research and development centres and the higher education sector (...)”</i></b>
The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure	

*2.A.6.3. The planned use of financial instruments*

*(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)*

<b>Investment priority 1.b</b>	<b><i>“Promoting business investment in R&amp;I, developing links and synergies between enterprises, research and development centres and the higher education sector (...)”</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

*2.A.6.4. Planned use of major projects*

*Not applicable*

2.A.6.5. Output indicators

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> <i>200 char. Max.</i>	<b>Frequency of reporting</b> <i>100 char. Max.</i>

2.A.7. Performance framework

**Table 5: Performance framework of the priority axis**

<b>Priority axis</b>	<b>Indicator Type (key implementation step, financial, output or, where appropriate, result indicator)</b>	<b>ID</b>	<b>Indicator or key implementation step</b>	<b>Measurement unit, where appropriate</b>	<b>Milestone for 2018</b>	<b>Final target (2023)</b>	<b>Source of data</b>	<b>Explanation of the relevance of the indicator, where appropriate</b>

**2.A.1. Priority Axis 2**

<b>ID</b>	<b>PRIORITY AXIS 2</b>
<b>Title</b>	<p><b>Low carbon</b></p> <p>The Priority Axis 2 aims at supporting the adoption of low carbon strategies and approaches as envisaged by TO4.</p> <p>The area is characterized by high energy consumption and a low degree of energy efficiency of buildings and infrastructure which are the main contributors to greenhouse gas emissions. The analysis has demonstrated that dependency from gas and oil is still relevant and needs to be reduced while increase funding and capacity of use of renewable resources especially in rural and isolated area is also perceived as necessary.</p> <p>The significant number of resorts and tourist driven settlements call for actions that might offer a cross-border added value in several aspects (impact of energy consumption for cooling needs, reduction of traffic congestion due to seasonality, etc.)</p>

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development

**2.A.2. Justification for the establishment of a priority axis covering more than one thematic objective**

*Not applicable*

**2.A.3. Fund and calculation basis for the Union support**

<b>Fund</b>	<b>ERDF</b>
<b>Calculation Basis</b> ( <i>total eligible expenditure or eligible public expenditure</i> )	<b>To be decided</b>

#### 2.A.4. Investment priority 4.c

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

#### INVESTMENT PRIORITY 4.c

***"Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector"***

#### 2.A.5 Specific objective 2.1

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>2.1</b>
<b>Specific Objective</b>	Increase the energy efficiency and the use of renewable energy solutions in housing and public infrastructures in rural, sparsely populated areas
<b>Expected results</b>	The intended result is to increase the capacities of the public sector and related entities for improving the energy efficiency of public infrastructures and ultimately reducing their energy consumption and CO2 emissions.

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>22</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>22</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 4.c</b>	<b>“Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector”</b>
<p>The cooperation area is characterized by several medium and small size settlements where buildings represent one of the main sources of GHG emission. The majority of the housing stock requires heavy upgrading of isolation and cooling systems which is currently partly financed by national, regional and EU thematic programmes.</p> <p>Additionally, the analysis has demonstrated that there is potential for exploiting renewable resources available in the area (solar) also by improving existing public infrastructures that could be upgraded by installation of green technologies.</p> <p>Besides financing support and the development of innovative techniques, materials or isolation systems, progress can be made regarding the capacity of owners and managers to promote energy efficiency (addressing to the lack of awareness, increasing knowledge, improving the commitment on energy efficiency measures...). This is particularly true for rural and isolated areas where also the awareness of the benefit of energy efficiency is not fully spread.</p> <p>The cross-border added value can be perceived while supporting exchange of experience, practices and innovative solutions for public building owners and public infrastructure managers as well as the introduction of new practices in joint green technologies purchasing. This shall be done with the involvement of end users to ensure coherence of capacity measures.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objectives' goals:</p> <ul style="list-style-type: none"> <li>• development and piloting of intelligent energy storage systems linked to renewable resources;</li> <li>• promotion of energy efficiency also through district heating and cooling and the installation of cogeneration and tri-generation plants, including those in the service of farms or farms associative forms;</li> <li>• development and piloting energy efficiency solutions in tourism related buildings;</li> <li>• strengthening the capacity of the public sector to develop and implement innovative energy services, incentives and financing schemes (e.g. energy performance contracting, PPP models, etc.);</li> <li>• development of energy networks equipped with digital communication systems, smart metering and control and monitoring systems (smart grids) as infrastructure for small settlements and rural areas;</li> <li>• mapping of renewable energy resources available for each territory with guidance on sources to which each area is most suited and procedures for interconnection and integration with neighbouring areas to help ensure the optimum use of resources;</li> <li>• develop and pilot intelligent green light systems for ports and airports.</li> </ul>	

**Target groups**

- General public;
- Those groups listed below under the caption “Indicative types of beneficiaries”;

**Indicative types of beneficiaries**

- local, regional and national public authorities and related entities, regional development agencies, energy suppliers, energy management institutions and enterprises, the construction sector, regional associations, regional innovation agencies, NGOs, education and training centers as well as universities and research institutes

*2.A.6.2. The guiding principles for the selection of operations*

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 4.c</b>	<b><i>“Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector”</i></b>
The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure	

*2.A.6.3. The planned use of financial instruments*

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 4.c</b>	<b><i>“Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector”</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

*2.A.6.4. Planned use of major projects*

*Not applicable*



2.A.6.5. Output indicators

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> <i>200 char. Max.</i>	<b>Frequency of reporting</b> <i>100 char. Max.</i>

#### 2.A.4. Investment priority 4.e

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

##### INVESTMENT PRIORITY 4.e

***"Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures"***

#### 2.A.5 Specific objective 2.2

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>2.2</b>
<b>Specific Objective</b>	Improve the capacities for mobility planning in urban areas to lower traffic congestion
<b>Expected results</b>	The intended result is to increase the planning capacities of the public sector and related entities for introducing sustainable multimodal mobility models that will reduce the impact of private car transportation in the urban areas

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>23</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>23</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 4.e</b>	<b><i>"Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures"</i></b>
<p>Analysing the data of modal split of passenger transport as a percentage in total inland passengers in kilometres it is visible that percentage of total inland passengers by trains - in the programme area - is decreasing rapidly over the years, transport with passenger cars is increasing. Motor coaches, buses and trolley buses is constant over the years. This is felt as a particular problem especially for those urban areas where seasonal tourism flows are increasing the traffic congestion therefore causing a negative impact in quality of life of the people. CBC actions can make a difference by supporting appropriate measure to promote multimodality and use of public transport services also in relation to main tourist destinations.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objectives' goals:</p> <ul style="list-style-type: none"> <li>• increase the efficiency and reduce the environmental impact of transport systems, in particular by providing combined transport solutions alternative and sustainable in urban areas;</li> <li>• promote alternative mobility concepts and strategies especially for facing high seasonal tourism demand;</li> <li>• promote the use of intelligent urban transport systems to improve linkages to and from rural areas / islands to urban settlements.</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption "Indicative types of beneficiaries";</li> </ul> <p><b>Indicative types of beneficiaries</b></p> <ul style="list-style-type: none"> <li>• local, regional and national public authorities, regional development agencies, energy operators, energy management institutions, enterprises including SMEs, public transport operators, associations, innovation agencies, NGOs, education and training organisations as well as universities and research institutes</li> </ul>	

### 2.A.6.2. The guiding principles for the selection of operations

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 4.e</b>	<b><i>"Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures"</i></b>
<p>The selection of projects will be carried out in accordance to Article 12 of the ETC regulation,</p>	

following a standardised assessment procedure

*1.3.1.3.2.A.6.3. The planned use of financial instruments*

*(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)*

<b>Investment priority 4.e</b>	<b><i>"Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures"</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

*1.3.1.4.2.A.6.4. Planned use of major projects*

*Not applicable*

2.A.6.5. Output indicators

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> <i>200 char. Max.</i>	<b>Frequency of reporting</b> <i>100 char. Max.</i>

**2.A.7. Performance framework**

**Table 5: Performance framework of the priority axis**

<b>Priority axis</b>	<b>Indicator Type (key implementation step, financial, output or, where appropriate, result indicator)</b>	<b>ID</b>	<b>Indicator or key implementation step</b>	<b>Measurement unit, where appropriate</b>	<b>Milestone for 2018</b>	<b>Final target (2023)</b>	<b>Source of data</b>	<b>Explanation of the relevance of the indicator, where appropriate</b>

**2.A.1. Priority Axis 3**

<b>ID</b>	<b>PRIORITY AXIS 3</b>
<b>Title</b>	<p><b><i>Climate change and risk management</i></b></p> <p>Both urban and rural areas of the cooperation space are not sufficiently resilient to climate change and disasters. The unique sea and maritime eco-system might be at risk due droughts and wild fires on the coastal parts. The relevant presence of forests and natural parks present a major challenge. Additionally preventive flood protection measures are not sufficiently developed.</p> <p>Accidental and operational pollution from marine objects, accidents in the transport of oil and oil products, the problem of introducing strange marine microorganisms and pathogens in marine environment are considered as the most important environmental risks potentially able to negatively impact on the sustainable development of the Adriatic sea on both Italian and Croatian sides.</p> <p>In this respect, Priority Axis 3, aligned with the TO5, can offer valuable CBC solutions for increasing climate change adaptation as well risk assessment and management capacities.</p>

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development

**2.A.2. Justification for the establishment of a priority axis covering more than one thematic objective**

*Not applicable*

**2.A.3. Fund and calculation basis for the Union support**

<b>Fund</b>	<b>ERDF</b>
<b>Calculation Basis</b> ( <i>total eligible expenditure or eligible public expenditure</i> )	<b>To be decided</b>



#### 2.A.4. Investment priority 5.a

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>INVESTMENT PRIORITY 5.a</b>
<b><i>"Supporting investment for adaptation to climate change, including ecosystem-based approaches"</i></b>

#### 2.A.5 Specific objective 3.1

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>3.1</b>
<b>Specific Objective</b>	Increase the adaptation capacity to climate change in the cooperation area

<b>Expected results</b>	The intended result is an increased preparedness for, and resilience to, climate change and associated phenomena (e.g. coastal erosion, flooding, droughts, and extreme weather) in the cross-border area. A more integrated approach to climate change adaptation will be developed. There will be improved mechanisms for the exchange of information and data and improved coordination of adaptive actions and plans
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**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>24</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>24</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 5.a</b>	<b><i>“Supporting investment for adaptation to climate change, including ecosystem-based approaches”</i></b>
<p>Climate change as an area for intervention is underpinned by a range of interlinked needs and potential in the area which are quite challenging. In particular, coastal areas are particularly vulnerable, as they are prone to related risks that are likely to be increasing, such as flooding or coastal erosion. The area’s heritage is also threatened by climate change. The cross border area therefore needs to maintain and strengthen its adaptive capacity to climate change in a context where there is a risk of an increase in vulnerability reinforced by the lower allocation of public financing on this issue in the context of lasting economic difficulties.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objectives’ goals:</p> <ul style="list-style-type: none"> <li>• Elaborations of action plans and other instruments for climate change adaptation on coastal areas;</li> <li>• Action aimed at contrasting marine debris;</li> <li>• Establishment of joint measures aiming at reducing the impact and effects of infrastructure works</li> <li>• Establishment of better coordinated collective emergency planning and preparedness for flooding (water management, flood risk techniques, etc.)</li> <li>• Awareness-raising for society (i.e. schools, citizen) and governance instruments</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption “Indicative types of beneficiaries”;</li> </ul> <p><b>Indicative types of beneficiaries</b></p> <ul style="list-style-type: none"> <li>• local, regional and national public authorities and related entities, regional development agencies, regional associations, NGOs, education and training centers as well as universities and research institutes</li> </ul>	

### 2.A.6.2. The guiding principles for the selection of operations

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 5.a</b>	<b><i>“Supporting investment for adaptation to climate change, including ecosystem-based approaches”</i></b>
<p>The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure.</p>	

2.A.6.3. *The planned use of financial instruments*

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 5.a</b>	<b>“Supporting investment for adaptation to climate change, including ecosystem-based approaches”</b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

2.A.6.4. *Planned use of major projects*

Not applicable

2.A.6.5. *Output indicators*

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> 200 char. Max.	<b>Frequency of reporting</b> 100 char. Max.

#### **2.A.4. Investment priority 5.b**

*(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)*

#### **INVESTMENT PRIORITY 5.b**

***"Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems"***

#### **2.A.5 Specific objective 3.2**

*(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)*

<b>ID</b>	<b>3.2</b>
<b>Specific Objective</b>	Increase the capacity for joint risk management in the cooperation area
<b>Expected results</b>	The intended result is an increased mitigation capacity (equipment, norms, administrative capacity, cross-border cooperation for environmental hazard management) of the cross-border area

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>25</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>25</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 5.b</b>	<b><i>“Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems”</i></b>
<p>Key feature of the programme area is the Adriatic Sea. Adriatic coast and islands are the most valuable, but also one of the most vulnerable natural systems of the programme area. Adriatic Sea is a unique and highly sensitive marine ecosystem which, by its hydrographical, oceanographic, biological, bio-geographical and other features differs from the rest of the Mediterranean Sea even though it is an integral part of it. The Adriatic Sea is characterized by biodiversity, purity, transparency and different landscapes. This unique asset can be endangered by several risks caused either by natural or human made hazards.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objectives’ goals:</p> <ul style="list-style-type: none"> <li>• Actions aimed at reducing and preventing the environmental risk of introduction of alien species due to the ballast water discharge;</li> <li>• Actions aimed at reducing and preventing all possible kinds of sea pollution deriving from transport and port activities;</li> <li>• Setting up of common framework/models/tools and pilot actions to promote the reduction of environmental risks and common management of the emergencies.</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption “Indicative types of beneficiaries”;</li> </ul> <p><b>Indicative types of beneficiaries</b></p> <ul style="list-style-type: none"> <li>• local, regional and national public authorities and related entities, regional development agencies, regional associations, NGOs, education and training centres as well as universities and research institutes</li> </ul>	

### 2.A.6.2. The guiding principles for the selection of operations

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 5.b</b>	<b><i>“Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems”</i></b>
<p>The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure.</p>	

### 2.A.6.3. The planned use of financial instruments

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 5.b</b>	<b><i>“Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems”</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

#### 2.A.6.4. Planned use of major projects

Not applicable

#### 2.A.6.5. Output indicators

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> 200 char. Max.	<b>Frequency of reporting</b> 100 char. Max.

#### 2.A.7. Performance framework

**Table 5: Performance framework of the priority axis**

<b>Priority axis</b>	<b>Indicator Type (key implementation step, financial, output or, where appropriate, result indicator)</b>	<b>ID</b>	<b>Indicator or key implementation step</b>	<b>Measurement unit, where appropriate</b>	<b>Milestone for 2018</b>	<b>Final target (2023)</b>	<b>Source of data</b>	<b>Explanation of the relevance of the indicator, where appropriate</b>



**2.A.1. Priority Axis 4**

<b>ID</b>	<b>PRIORITY AXIS 4</b>
<b>Title</b>	<b>Environment and cultural heritage</b>
	The Priority Axis 4 responds to the need for protecting and sustainably using natural and cultural heritage and resources, which are subject to increasing environmental and economic pressures as well as usage conflicts. It aims at promoting the use of these assets in a sustainable way for long lasting development and economic growth as well as the joint preservation and management of natural resources. Additionally it supports the use of new technologies in environmental protection, with specific marine and maritime focus. It is aligned with TO6

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development

**2.A.2. Justification for the establishment of a priority axis covering more than one thematic objective**

*Not applicable*

**2.A.3. Fund and calculation basis for the Union support**

<b>Fund</b>	<b>ERDF</b>
<b>Calculation Basis</b> (total eligible expenditure or eligible public expenditure)	<b>To be decided</b>

#### 2.A.4. Investment priority 6.c

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>INVESTMENT PRIORITY 6.c</b>
<b><i>"Conserving, protecting, promoting and developing natural and cultural heritage"</i></b>

#### 2.A.5 Specific objective 4.1

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>4.1</b>
<b>Specific Objective</b>	Increase the development of the area's natural and cultural heritage assets also as support sustainable tourist destinations
<b>Expected results</b>	The intended result is an increased attractiveness of the cross-border area for a diversified form of sustainable tourism that is less seasonal and more aware of the fragility of the ecosystem

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>26</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>26</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

Investment priority 6.c	<b>“Conserving, protecting, promoting and developing natural and cultural heritage”</b>
<p>Due to its long lasting traditions and dynamic history the programme area represents a culturally rich and worldwide valued territory. The Adriatic Sea has traditionally constituted a basin for economic and social exchanges between different cultures and religions from antiquity to modern times. Architects, painters, sculptors have all left their signatures in various settlements on both sides of the sea thus cultural assets sometimes present common characteristics in terms of construction techniques and materials used.</p> <p>Additionally, the area represent a diverse setting of landscapes and natural elements making the area a globally attractive place with quality of life for inhabitants and visitors.</p> <p>The right balance between conservation/protection and advancement is one of the main challenges. Both elements are integral part of the cultural resources of the area and an asset in the context of green growth and decoupling material input and economic growth.</p> <p>A pivotal element in the sustainable valorisation is tourism, since tourism is using the cultural and natural heritage as an output, but also relies to their intact nature to be used as an input to the tourism product.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objectives’ goals:</p> <ul style="list-style-type: none"> <li>• development of cluster of products typical of the area to enhance tourism;</li> <li>• development of marketing/ commercialization programmes for common adriatic tourism products integrating territorial services and piloting matchmaking actions;</li> <li>• enhancement of cruise and nautical / boat tourism linked to sustainable local development processes;</li> <li>• development / enhancement of tourism/cultural itineraries link to common thematic destinations;</li> <li>• development of actions of common branding;</li> <li>• support to cooperation actions between education institutions for enhancing human resources in the field of tourism;</li> <li>• development of cooperation strategies for preservation of cultural heritage;</li> <li>• support for knowledge and the usability of the cultural and natural heritage destinations by all types of users, improving accessibility, information, and sustainability awareness, smart use of ICT;</li> <li>• digitization and archiving of cultural heritage.</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption “Indicative types of beneficiaries”;</li> </ul> <p><b>Indicative types of beneficiaries</b></p>	

- local, regional and national public authorities, regional development agencies, enterprises (in particular SMEs within the cultural and creative industry as well as the environmental and tourism sector), associations, regional innovation agencies, NGOs, education and training organizations as well as universities and research institutes

#### 2.A.6.2. The guiding principles for the selection of operations

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.c</b>	<b><i>“Conserving, protecting, promoting and developing natural and cultural heritage”</i></b>
The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure.	

#### 2.A.6.3. The planned use of financial instruments

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.c</b>	<b><i>“Conserving, protecting, promoting and developing natural and cultural heritage”</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

#### 2.A.6.4. Planned use of major projects

Not applicable

#### 2.A.6.5. Output indicators

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> <i>200 char. Max.</i>	<b>Frequency of reporting</b> <i>100 char. Max.</i>

#### 2.A.4. Investment priority 6.d

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

##### **INVESTMENT PRIORITY 6.d**

***"Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure"***

#### 2.A.5 Specific objective 4.2

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>4.2</b>
<b>Specific Objective</b>	Enhance the management of the sea natural resources by public actors for a better environment
<b>Expected results</b>	The intended result is improved planning and management capacity of the natural resources in the sea basin achieved by public actors throughout joint cooperation actions

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>27</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>27</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.d</b>	<b><i>“Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure”</i></b>
<p>Ecosystems and biodiversity of the Adriatic sea represents a key dimension of the quality of life, territorial attractiveness of the water and food supply and the fight against pollution. Natural marine and coastal resources in these regions are highly valuable and constitute an important driver for economic development.</p> <p>They are however confronted to a strong pressure and conflicts of use due to the urbanisation process, agricultural and industrial activities, transport, etc.</p> <p>Protection measures must be interconnected and inclined to take into account these changes. Protected areas have been implemented however ecosystems and biodiversity evolve and protection measures do not answer to all needs observed at territorial level. In the cooperation area, one can especially observe a strong pressure on water quality (harbour pollutions, marine litters), with direct effects on the biodiversity. Invasive species represent also a specific risk as a consequence of climate change.</p> <p>Integrated environmental management requires a comprehensive approach to natural resources, planning and management involving the different level of authorities (local, regional and national) and can offer an appropriate response if tackled at CB level.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objectives’ goals:</p> <ul style="list-style-type: none"> <li>• development of models for monitoring of the species and testing of models of sustainable fisheries for their protection;</li> <li>• setting up of CB protected marine areas;</li> <li>• development of innovative models and systems for increase the marine environment knowledge also through establishment of common platform for marine research, survey habitat-biodiversity mapping, networking to gather and process data related to the sustainable development;</li> <li>• actions for implementing coordinated Maritime Spatial Planning (MSP) and Integrated Coastal Management (ICM): plans, tools and pilots;</li> <li>• protection, improvement and integrated management of the sea, coastal and rural environment and of cross-border natural resources.</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption “Indicative types of beneficiaries”;</li> </ul> <p><b>Indicative types of beneficiaries</b></p> <ul style="list-style-type: none"> <li>• local, regional and national public authorities, regional development agencies, associations, regional innovation agencies, NGOs, education and training organizations as well as universities and research institutes</li> </ul>	



*2.A.6.2. The guiding principles for the selection of operations*

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.d</b>	<b><i>“Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure”</i></b>
The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure.	

*2.A.6.3. The planned use of financial instruments*

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.d</b>	<b><i>“Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure”</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

*2.A.6.4. Planned use of major projects*

*Not applicable*

*2.A.6.5. Output indicators*

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> <i>200 char. Max.</i>	<b>Frequency of reporting</b> <i>100 char. Max.</i>

#### **2.A.4. Investment priority 6.f**

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

##### **INVESTMENT PRIORITY 6.f**

***"Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution"***

#### **2.A.5 Specific objective 4.3**

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>4.3</b>
<b>Specific Objective</b>	Improve the environmental conditions by use of innovative technologies
<b>Expected results</b>	The intended result is an improved marine and coastal environment throughout the increase of use of innovative technologies and solutions by public and private actors

**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>28</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>28</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.f</b>	<b><i>“Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution”</i></b>
<p>The existence of natural resources, with a particular focus on coastal and marine areas due to the shared asset of the sea are calling for a stronger focus in the use of innovative technologies for their safeguard and protection.</p> <p>CB cooperation can be the right platform to reinforce the institutional framework conditions by adopting and implementing collaborative approaches, structures and policy tools in order to facilitate the transition towards greener sea transport patterns and more efficient maritime information systems.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objective’s goals:</p> <ul style="list-style-type: none"> <li>• Investments in energy efficiency and reducing greenhouse gas emission from transport sector, for example for the deployment of alternative fuels infrastructure in ports (mainly LNG);</li> <li>• Implementing common spatial information systems on ecosystem components and human uses and activities;</li> <li>• Research platform for green shipping, to develop new materials, sensor technologies shore-based supply of electricity for vessels in ports and to innovative propulsion modes and fuels (switch from diesel to Liquid Natural Gas and electric vessels);</li> <li>• Implementation of Information and Communication Technology (ICT) and intelligent infrastructure services (e.g. tracking and monitoring) to improve the efficiency, reliability and safety/security of the port operations and of the delivery system.</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption “Indicative types of beneficiaries”;</li> </ul> <p><b>Indicative types of beneficiaries</b></p> <ul style="list-style-type: none"> <li>• local, regional and national public authorities, regional development agencies, associations, regional innovation agencies, NGOs, education and training organizations as well as universities and research institutes</li> </ul>	

### 2.A.6.2. The guiding principles for the selection of operations

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.f</b>	<b><i>“Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution”</i></b>
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The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure.

### 2.A.6.3. The planned use of financial instruments

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 6.f</b>	<b><i>“Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution”</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

### 2.A.6.4. Planned use of major projects

Not applicable

### 2.A.6.5. Output indicators

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> <i>200 char. Max.</i>	<b>Frequency of reporting</b> <i>100 char. Max.</i>

### 2.A.7. Performance framework

**Table 5: Performance framework of the priority axis**

<b>Priority axis</b>	<b>Indicator Type (key implementation step, financial, output or, where appropriate,</b>	<b>ID</b>	<b>Indicator or key implementation step</b>	<b>Measurement unit, where appropriate</b>	<b>Milestone for 2018</b>	<b>Final target (2023)</b>	<b>Source of data</b>	<b>Explanation of the relevance of the indicator, where</b>

	<b>result indicator</b>							<b>appropriate</b>

**2.A.1. Priority Axis 5**

<b>ID</b>	<b>PRIORITY AXIS 5</b>
<b>Title</b>	<p data-bbox="397 275 557 310"><b>Connectivity</b></p> <p data-bbox="397 342 1101 375">The Priority Axis 5 is supporting the achievement of TO7.</p> <p data-bbox="397 392 1383 457">It aims at improving accessibility of the area while strengthening multi-modal environmentally friendly marine and coastal transport.</p> <p data-bbox="397 474 1383 848">As a matter of fact, the area is characterised by the dominance of road transport on land bound routes and by the large number of smaller and bigger ports at the coast line. The connections to the hinterland are sometimes limited, there are many bottlenecks and multimodal connections and coordinated development are also poor. This is evident by the maritime traffic congestion at ports. At the same time the number of visitors and travellers is increasing promoting the implementation of new air routes and therefore fostering the regional airports that might increase in efficiency if better coordinated. The lack of efficient multimodal networks (road, rail air, water transport) as well as low connectivity and mobility of peripheral areas can be addressed by improving the strategic transport management</p>

- The entire priority axis will be implemented solely through financial instruments
- The entire priority axis will be implemented solely through financial instruments set up at Union level
- The entire priority axis will be implemented through community-led local development

**2.A.2. Justification for the establishment of a priority axis covering more than one thematic objective***Not applicable***2.A.3. Fund and calculation basis for the Union support**

<b>Fund</b>	<b>ERDF</b>
<b>Calculation Basis</b> (total eligible expenditure or eligible public expenditure)	<b>To be decided</b>

#### 2.A.4. Investment priority 7.c

(Reference: points (b)(i) of Article 8(2) of Regulation (EU) No 1299/2013)

##### **INVESTMENT PRIORITY 7.c**

*"Developing and improving environment-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility"*

#### 2.A.5 Specific objective 5.1

(Reference: points (b)(i) and (ii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>ID</b>	<b>5.1</b>
<b>Specific Objective</b>	Improve the quality and environmental sustainability of maritime and coastal transport services in the area
<b>Expected results</b>	The intended result is an improved offer of maritime transport services in the area by promoting multimodality and improving the accessibility to the ports and main regional hubs



**Table3: Programme specific result indicators (by specific objective)**

(Reference: point (b)(ii) of Article 8(2) of Regulation (EU) No 1299/2013)

One (if possible) and no more than two result indicators should be used for each specific objective.

ID	Result Indicator	Measurement Unit	Baseline Value	Baseline Year	Target Value <sup>29</sup> (2023) 100 char. max	Source of Data 200 char. max	Frequency of reporting 100 char. max

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<sup>29</sup>Target values can be qualitative or quantitative

## 2.A.6. Actions to be supported under the investment priority

### 2.A.6.1A description of the type and examples of actions to be supported

Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 7.c</b>	<p><b><i>“Developing and improving environment-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility”</i></b></p>
<p>Waterway transport plays a key role in this respect, especially since it has a relatively low environmental impact, thus the creation of an efficient multimodal transport system in the region may become a driving force in support for its sustainable development. The relatively low offer of routes between the two shores of the Adriatic is affecting the accessibility of the overall area.</p> <p>Beside the need for optimisation of individual modes of transport (i.e. making them more environmentally-friendly, safe and energy efficient), there is need for surveillance and coordination capacity and substantial investments in order to meet all the challenges for a sustainable, environmental friendly and low carbon transport system.</p> <p>The following list of possible actions is only an indicative list and can be completed with other relevant actions contributing to the IP specific objective’s goals:</p> <ul style="list-style-type: none"> <li>• promotion and piloting of cross-border maritime routes and connectivity between different areas, in particular with regard to remote places and islands;</li> <li>• adaptation and improvement of port infrastructure and inter-port in relation to operational and managerial aspects;</li> <li>• promotion of maritime passenger transport services efficient and sustainable in line with the adoption of environmental low-impact mobility plans (pilot of passenger ferry connections between ports and tourist area);</li> <li>• exploiting the potential of regional airport promoting their connections to the coast to improve accessibility and supporting intermodality;</li> <li>• improving coordination between regional airports of the area for exploiting synergies and complementarities;</li> <li>• sharing strategic functions and harmonizing ports processes through a common Intelligent Transport System (ITS);</li> <li>• green upgrading of ships, of port machinery and port activities (e.g. cranes, power supply from shore, fuel switching to LNG, retrofitting, etc.);</li> <li>• support port multimodal connectivity through the development of Short - Sea Shipping and the improvement of road and railway connections</li> </ul> <p><b>Target groups</b></p> <ul style="list-style-type: none"> <li>• General public;</li> <li>• Those groups listed below under the caption “Indicative types of beneficiaries”;</li> </ul> <p><b>Indicative types of beneficiaries</b></p> <ul style="list-style-type: none"> <li>• local, regional and national public authorities, regional development agencies,</li> </ul>	

enterprises, transport operators including operators of multimodal logistics hubs, infrastructure providers, transport associations, regional innovation agencies, NGOs, education and training organisations as well as universities and research institutes

#### 2.A.6.2. The guiding principles for the selection of operations

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 7.c</b>	<b><i>“Developing and improving environment-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility”</i></b>
The selection of projects will be carried out in accordance to Article 12 of the ETC regulation, following a standardised assessment procedure.	

#### 2.A.6.3. The planned use of financial instruments

(Reference: point (b)(iii) of Article 8(2) of Regulation (EU) No 1299/2013)

<b>Investment priority 7.c</b>	<b><i>“Developing and improving environment-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility”</i></b>
Planned use of financial instruments	
The opportunity of the elaboration and implementation of financial instruments will be debated during the implementation of the programme	

#### 2.A.6.4. Planned use of major projects

Not applicable

#### 2.A.6.5. Output indicators

(Reference: point (b)(iv) of Article 8(2) of Regulation (EU) No 1299/2013)

**Table 4: Common and programme specific output indicators**(by investment priority)

<b>ID</b>	<b>Output Indicator</b>	<b>Measurement unit</b>	<b>Target value (2023)</b>	<b>Source of data</b> 200 char. Max.	<b>Frequency of reporting</b> 100 char. Max.


**2.A.7. Performance framework**

**Table 5: Performance framework of the priority axis**

<b>Priority axis</b>	<b>Indicator Type (key implementation step, financial, output or, where appropriate, result indicator)</b>	<b>ID</b>	<b>Indicator or key implementation step</b>	<b>Measurement unit, where appropriate</b>	<b>Milestone for 2018</b>	<b>Final target (2023)</b>	<b>Source of data</b>	<b>Explanation of the relevance of the indicator, where appropriate</b>