Republic of Croatia - Integral Part of the Greater European Transport Network
Table of Contents

LIST OF ACRONYMS ........................................................................................................... 4
INTRODUCTION ................................................................................................................. 6
SUMMARY .......................................................................................................................... 7
IPA BACKGROUND ........................................................................................................... 9
SECTION 1: ANALYSIS ...................................................................................................... 10
  1.1 Baseline analysis ........................................................................................................ 10
  1.2 Lessons learnt from previously implemented EU interventions ............................. 34
  1.3 Strengths, Weaknesses, Opportunities and Threats (SWOT analysis) ...................... 36
SECTION 2: STRATEGY ..................................................................................................... 43
  2.1 Overall objective of the OP and contribution of the OP to the objectives of the NSRF ... 43
  2.2 Specific objectives ...................................................................................................... 44
  2.3 Priority axes ............................................................................................................... 56
  2.4 Ex ante evaluation ...................................................................................................... 57
  2.5 Strategic Environmental Assessment ........................................................................ 58
  2.6 Partnership process .................................................................................................... 61
  2.7 Horizontal issues ....................................................................................................... 62
SECTION 3: PRIORITY AXES ........................................................................................... 65
  3.1 Priority Axis 1 - Modernisation of railway infrastructure and Project preparation in transport sector (co-financed by ERDF) ........................................... 66
  3.2 Priority Axis 2 - Upgrading Croatia’s inland waterway system (co-financed by ERDF) .... 68
  3.3 Priority Axis 3 - Technical Assistance (co-financed by ERDF) .................................... 70
  3.4 Priority Axis 4 - Road and airport development (co-financed by ERDF) .................... 71
  3.5 Demarcation with similar interventions under other OPs and EU funded programmes ........ 74
  3.6 Complementarities with other sources of investment ................................................ 75
SECTION 4: IMPLEMENTATION ....................................................................................... 76
  4.1 Management ................................................................................................................ 76
  4.2 Monitoring and Evaluation ....................................................................................... 80
  4.3 Certification of expenditure (Certifying Authority) .................................................... 81
  4.4 Verifications of expenditure and functioning of the system (Audit Authority) ............ 82
  4.5 Financial Flows ......................................................................................................... 83
  4.6 Information and publicity .......................................................................................... 84
  4.7 Management Information System (MIS) ................................................................... 86
SECTION 5: FINANCIAL TABLES ...................................................................................... 87
  5.1 Annual commitments ............................................................................................... 87
  5.2 Total financial allocation .......................................................................................... 87
  5.3 Indicative breakdown of categorization of expenditure and fulfilment of Lisbon earmarking requirements ................................................................. 89
ANNEXES ......................................................................................................................... 90
  Annex 1: Composition of the TOP drafting group ....................................................... 91
  Annex 2: Supplementary statistical information using standard indicators ................ 92
  Annex 3: Ex Ante Evaluation report ............................................................................ 96
  Annex 4: Strategic Environmental Assessment report ............................................. 97
  Annex 5: Indicative list of major projects ................................................................. 98
  Annex 6: Indicative breakdown of expenditure by category of intervention ............... 99
  Annex 7: State aid guidelines for the TOP 2007-2013 ............................................. 100
  Annex 8: Financial Flows ............................................................................................ 101
**List of Acronyms**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AADT</td>
<td>Average annual daily traffic</td>
</tr>
<tr>
<td>AGC</td>
<td>European Agreement on Main International Railway Lines</td>
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<tr>
<td>AGN</td>
<td>European Agreement on Main Inland Waterways of International Importance</td>
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<tr>
<td>AGTC</td>
<td>European Agreement on Important International Combined Transport Lines and Related Installations</td>
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<td>AP</td>
<td>Accession Partnership</td>
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<tr>
<td>CARDS</td>
<td>Community Assistance for Reconstruction, Development and Stabilisation</td>
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<tr>
<td>CBS</td>
<td>Central Bureau of Statistics</td>
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<tr>
<td>CFCA</td>
<td>Central Finance and Contracting Agency</td>
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<td>CODEF</td>
<td>Central Office for Development Strategy and Coordination of EU Funds</td>
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<td>CSG</td>
<td>Community Strategic Guidelines</td>
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<td>DG</td>
<td>Directorate-General</td>
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<tr>
<td>DG ENV.</td>
<td>EC Directorate General for Environment</td>
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<td>DG TREN</td>
<td>EC Directorate-General for Transport and Energy</td>
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<td>DTI</td>
<td>Directorate of Transport Infrastructure</td>
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<tr>
<td>DG REGIO</td>
<td>EC Directorate General for Regional Policy</td>
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<td>EBRD</td>
<td>European Bank for Reconstruction and Development</td>
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<td>EC</td>
<td>European Commission</td>
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<td>EIA</td>
<td>Environment Impact Assessment</td>
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<td>EIB</td>
<td>European Investment Bank</td>
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<td>ERDF</td>
<td>European Regional Development Fund</td>
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<td>ESF</td>
<td>European Social Fund</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>EUR</td>
<td>Euro</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GT</td>
<td>Gross Tonnage</td>
</tr>
<tr>
<td>GTC</td>
<td>Gross Tonnage Containers</td>
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<tr>
<td>IFI</td>
<td>International financing institution</td>
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<td>IPA</td>
<td>Instrument for Pre-Accession Assistance</td>
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<td>IWG</td>
<td>Inter-ministerial working group</td>
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<tr>
<td>MA</td>
<td>Managing Authority</td>
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<td>MAP</td>
<td>Multi-annual plan</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>MMATI</td>
<td>Ministry of Maritime Affairs, Transport and Infrastructure</td>
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<td>MRDEUF</td>
<td>Ministry of Regional Development and EU Funds</td>
</tr>
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<td>MSTI</td>
<td>Ministry of the Sea, Transport and Infrastructure (now Ministry Of Maritime Affairs, Transport and Infrastructure)</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NSRF</td>
<td>National Strategic Reference Framework</td>
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<tr>
<td>NUTS</td>
<td>French - <em>nomenclature des unités territoriales statistiques</em> - Nomenclature of Territorial Units for Statistics</td>
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<td>OG</td>
<td>Official Gazette</td>
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<td>OP</td>
<td>Operational Programme</td>
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<td>PEP</td>
<td>Pre-accession Economic Programme</td>
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<td>RCOP</td>
<td>Regional Competitiveness Operational Programme</td>
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<tr>
<td>REBIS</td>
<td>Regional Balkans Infrastructure Study</td>
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<tr>
<td>RoC</td>
<td>Republic of Croatia</td>
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<td>SAA</td>
<td>Stabilisation and Association Agreement</td>
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<td>SCF</td>
<td>Strategic Coherence Framework</td>
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<td>SDF</td>
<td>Strategic Development Framework for 2006-2013</td>
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<td>SEA</td>
<td>Strategic Environmental Assessment</td>
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<td>SEETO</td>
<td>South East Europe Transport Observatory</td>
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<td>SEETIS</td>
<td>South East Europe Transport Information System</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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<td>SWOT</td>
<td>Strengths-Weaknesses-Opportunities-Threats</td>
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<td>TA</td>
<td>Technical Assistance</td>
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<tr>
<td>TEN-T</td>
<td>Trans-European Network for Transport</td>
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<td>TER</td>
<td>Trans-European Railway Project</td>
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<tr>
<td>TINA</td>
<td>Transport Infrastructure Needs Assessment</td>
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<td>TIRS</td>
<td>Transport Infrastructure Regional Study for Balkans</td>
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<td>TOP</td>
<td>Transport Operational Programme</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UN-ECE</td>
<td>United Nations Economic Commission for Europe</td>
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INTRODUCTION

Transport Operational Programme (TOP) is a document that defines and guides the use of EU funds for the development of transport infrastructure in the Republic of Croatia for the period from 2007 to 2013. The overall strategic objective of the TOP is the development of modern transportation networks and increased accessibility of regions, encourage better integration of Croatian transport networks within the European transport network and, by improving the transport infrastructure in the railway and inland waterway sector through the development of transport networks TEN-T corridors and by improving regional connection. Due to the difficulties in the implementation of several key projects planned for the TOP 2007-2013 (version 1.0) there was a need for amendment to TOP in terms of avoiding unanticipated negative impact on the development of the transport sector. In accordance with Article 33 of Regulation 1083/2006, the Operational Program can be reviewed and revised to take into account problems of implementation, and for the reasons mentioned above, the amendments to the TOP 2007-2013, version 2.0, were approved by Monitoring Committee.

The new amendments to the TOP are related to the inclusion of activities and projects in the road and air sectors within the new Priority Axis 4, the introduction of additional eligible activities for the preparation of projects within the Priority Axis 1 and to increase the value of Priority Axis 3 - Technical Assistance. The proposed amendments reflect the need to include additional investment priorities in the program in order to improve the rate of implementation. Financial allocations, indicators and targets were revised and adjusted in relation to the proposed changes. This amendments gives the answer to the problems arising in the implementation within the railway sector and the sector of inland waterways, and their inability to fully utilize the resources provided, as well as the emergence of the need to invest in road and air sectors.

During 2011 and 2012, the SEA procedure for TOP was conducted (Strategic environmental impact study for the TOP 2007-2013, Dvokut Ecro, May 2012), and included the implementation of Public consultation on Strategic Studies and the TOP 2007-2013 (version 1.0) in May - June 2012, according to the Environmental Protection Law (Official Gazette No 110/07), valid at that time, and the Regulation on information and participation of the public and public concerned in environmental matters (OG 64/08).

Given that the Strategic impact assessment from 2012 assessed projects envisaged through the Priority Axis 1, Priority Axis 2 and Priority Axis 3, there was a need to further evaluation of the actions and projects envisaged within the new Priority Axis 4. For that matter the Ministry of Maritime Affairs, Transport and Infrastructure in November 2014, began with a new Strategic environmental impact assessment in accordance with the Environmental Protection Law (OG No 80/13 and 153/13), the Regulation on strategic environmental assessment of plans and programs (OG No 64/08) and Regulation on information and participation of the public and public concerned in environmental matters (OG 64/08). At the request of the Ministry of Maritime Affairs, Transport and Infrastructure, Ministry of Environmental and Nature Protection conducted by the Previous assessment of the acceptability of Amendments to the TOP 2007-2013 for Ecological Networks (NATURA 2000) which is excluded possibility significant negative impacts on the objectives of the preservation and integrity area of the Ecological networks and the Ministry of Environmental and Nature Protection make a Decision about eligibility of TOP 2007-2013 (version 2.0) for Ecological Network.

Projects covered by the modified TOP 2007-2013, except for the “Development of the Dubrovnik airport,” not “major projects” (over 50 million), therefore they are not mentioned by name.
SUMMARY

The Republic of Croatia proposes to use the European Union (EU) Structural Instruments (namely the European Regional Development Fund (ERDF) to co-finance the Transport Operational Programme (hereinafter referred to as TOP). The TOP represents a programme document for absorbing the EU funds allocated for the implementation of EU cohesion policy in the transport sector in the Republic of Croatia covering a rolling seven-year period 2007-2013. The TOP builds on previous investments and capacity building initiatives funded by earlier EU programmes, most significantly, the Instrument for Structural Policies for Pre-Accession (ISPA) and the Instrument for Pre-Accession Assistance (IPA). Moreover, the IPA TOP has been transformed into the current TOP and is substituted by it.

The overall objective of the OP is Development of modern transportation networks and increased accessibility of the regions and corresponds to the thematic priority 1 of the National Strategic Reference Framework.

The TOP contributes to the overall objective by focusing on the following principle areas:

a) ensuring better integration of the Croatian transport networks within the European transport network by improving transport infrastructure primarily on the TEN-T network but also improving regional connections. These actions will enable the development of the national economy through the provision of better connections with the rest of the EU. The integration and modernisation of the railway and inland waterway sectors are the core priorities in the development of Croatian transport infrastructure.

b) encouraging a more balanced development of Croatian transport networks and regions by implementing actions which ensure a more equal ratio of investment regarding the different transport sectors and more balanced infrastructure endowment across the regions of Croatia.

The OP document sets out the following key issues with supporting information: context, policy, sector and SWOT analysis, objective and strategy development. Furthermore, in addition to the description of priority axes, areas of operations and proposed activities, it also provides the indicators to monitor and evaluate performance and presents the key features of implementation and management system that will ensure the delivery of the objectives.

The TOP 2007-2013 is based on the Council Regulation (EC) No 1083/2006, which encompasses the general provisions on the use of the CF and ERDF. Furthermore, the activities planned within this OP are in conformity with the Regulation (EC) No 1084/2006 of the European Parliament and of the Council of 11 July 2006 and Regulation (EC) No 1080/2006 of the European Parliament and of the Council of 5 July 2006 on the CF and ERDF respectively, providing eligibility rules of expenses issued by the CF and ERDF, and as subsequently amended. In addition, the TOP is fully consistent with the European Community Strategic Guidelines on cohesion. The TOP draws upon existing EU and national policies and strategies. Primarily, the TOP is closely linked to the aims and priorities of the National Strategic Reference Framework (NSRF) which is the basic reference instrument for the programming of the EU funds in the area of cohesion and regional policies. The Operational Programme was prepared within the framework of National Strategic Reference Framework, a key strategic document for the use of EU Cohesion policy Funds, which ensures that the assistance from the Funds is consistent with both, EU
and national objectives and guidelines. The NSRF defines priority areas which will be financed from this OP and describes how the implementation of the OP is expected to contribute to the achievements of strategic objectives and thematic priorities of the NSRF. TOP is also closely linked to the Interim Transport Strategy from 2010 which sets out the strategic priorities for the transport sector with the dominant one being the modernization of TEN-T and its connections to regional networks.

There is an urgent need to ensure the more balanced development of the Croatian transport network which, until recently has been dominated by the road sector, and to upgrade the sections of the transport networks located on the TEN-T network to accelerate Croatia’s integration within the EU and through this stimulate the development of the national economy. Therefore the focus of attention is on the development of those parts of the rail and inland waterway networks which form a part of the TEN-T network in Croatia. The two sectors are also relatively the most underdeveloped ones but have a substantial growth potential. At the same time the rise of those two transport modes will support development of a more environment sustainable outlook of the transport sector as a whole. For the abovementioned reasons the two sectors are supported through their own priority axes under this TOP. Two other transport sectors (road and airport development) were incorporated into the programme in November 2014 following the approval of the Monitoring Committee and the submission of a request for a programme modification to the European Commission.

In line with stated above the TOP foresees four priority axes with an ERDF allocation of 236.98 million EUR. The axes are:

Priority Axis 1: Modernisation of railway infrastructure and Project preparation in transport sector
Priority Axis 2: Upgrading Croatia’s inland waterway system
Priority Axis 3: Technical Assistance
Priority Axis 4: Road and airport development
IPA BACKGROUND

From 2007, Croatia benefited from IPA (Instrument for Pre-Accession Assistance) as a follow-up on of the ISPA (Instrument for Structural Policies for Pre-Accession) programme that was orientated on the railway TEN-T corridor X. In order to ensure an uninterrupted structural adjustment process in the transport sector and the utilization of the finance under IPA Component III - Regional Development, Croatia produced an IPA Transport Operational Programme which originally covered a three-year rolling period from 2007 to 2009. Its priorities were based on continuing ISPA, i.e. the railway line along TEN-T corridor X as the main objective and the inland waterways sector which had an urgent need for rehabilitation.

The IPA TOP was since twice modified in order to be extended to 2011 and subsequently to 2013 because of the eluding date of the Croatia’s accession to the EU. The modifications, apart from new yearly financial allocations brought also a new EU co-financing rate (85% instead of earlier 75%) and inclusion of some new projects along the TEN-T corridor Vb into the railway sector priority.

Starting in late 2008 the work on the new Structural funds TOP was initiated. At that time it was presumed that it will cover the years 2012 and 2013 as the first years of Croatia’s EU membership. In this context the SF TOP envisaged a vast intervention in practically all transport sectors: railway, inland waterway, road, airports, sea ports and urban transport, all at the national/TEN-T and regional levels.

Given the final accession date of 1st July 2013 and corresponding only half a year of Cohesion and Structural Funds allocation, the SF TOP 2012-2013 was out of proportion and not implementable. At the same time, through the implementation of IPA TOP and the preparations for Structural Instruments, the complexity of managing EU funds, the time consuming capacity enhancements of institutions and beneficiaries involved, project status reality and the scope of reform additionally needed for Structural Instruments utilization became obvious. With having in mind experience in IPA TOP and realities of the moment, it was decided in cooperation with European Commission to introduce a new TOP that will cover the whole financial perspective 2007-2013, thereby substituting the IPA but encompassing the same priorities and continuing the same projects.

In November 2014 as a result of implementation difficulties and changing national policy priorities under the evolving transport strategy, a request for programme modification was agreed by the Monitoring Committee and submitted to the European Commission in line with Article 33 of Regulation (EC) No 1083/2006. Whilst previously expenditure on transport sectors other than railways and inland waterways was only possible for project preparation activities, the modification would allow for project implementation in the road and air sectors.
SECTION 1: ANALYSIS

1.1 Baseline analysis

*General infrastructure and transport situation*

Due to the distinctive geographical shape of the Republic of Croatia, appropriate infrastructure and a developed transport system are of particular importance for the balanced economic development of the country. In addition to being essential for development, the transport sector, due to the geographical location of the country, can become the driver of its economic growth and, since Croatia is located on important pan-European transport corridors and adjacent to the Adriatic Sea, it is in a favourable position to develop the transport network and associated activities. In order to use the advantages of its geographical location, it is important for Croatia to develop the transport sector not only in accordance with its own development needs, but also with international needs, and to integrate the transport sector into the trans-European transport network.

**MAP No 1 - Pan-European Transport Corridors**

*Source: Ministry of Maritime Affairs, Transport and Infrastructure (MMATI)*
The following main transport corridors and their branches traverse Croatia:

- **Corridor X** Salzburg - Villach - Ljubljana - Zagreb - Belgrade - Skopje - Thessaloniki. The Croatian railway and road sections of that main corridor are 317 km and 306 km long, respectively.

- **Corridor VII** the river Danube with its tributaries / the river Sava.

- **Corridor Xa branch** Graz - Maribor - Zagreb.

- **Corridor Vb branch** Rijeka - Zagreb - Budapest.

- **Corridor Vc branch** Ploče - Sarajevo - Osijek - Budapest.

The Croatian transport network can be briefly described using the following data:

- road and motorway networks with a total length of 29,333 km,
- railway network with a total length of 2,604 km,
- inland waterway network with the total length of 805.2 km, including four ports (Sisak, Slavonski Brod, Vukovar and Osijek),
- maritime transport infrastructure including six major seaports (Rijeka, Zadar, Šibenik, Split, Ploče and Dubrovnik),
- an air transport system - nine airports, 7 of which are international airports (Zagreb, Rijeka, Split, Dubrovnik, Osijek, Pula and Zadar) and 2 are air fields (Brač and Mali Lošinj).

Since 2001, major public sector investments amounting to EUR 1,150 million annually, on average, have been made in transport infrastructure. Road investments accounted for the largest share in overall investments between 2001 and 2007 (85%, on average), whereby after 2005, public sector investments in roads decreased both in relative and absolute amounts. This investment in the development of the transport infrastructure of the Republic of Croatia is based on the Strategy for Transport Development which was adopted by the Croatian Parliament in November 1999. This strategy has since been partially updated for some transport sectors. Nevertheless there is an urgent need for updating the overall Transport Development Strategy of the Republic of Croatia. This is considered as a priority by the Ministry of the Maritime Affairs, Transport and Infrastructure which has started a process of its drafting through the establishment of sectoral sub-committees tasked to produce sectoral developments strategies to be combined in an integrated Transport Development Strategy of the Republic of Croatia. Changes in transport strategy priorities have been reflected in the modifications undertaken to the TOP in November 2014. The strategy identified gaps in accessibility for freight and passengers in the local and regional road network, including to other transport nodes such as ports and islands. It also considers option to address the territorial and transport isolation of the Dubrovnik area and the need to adapt airports to European safety and traffic management standards in order to enable seasonal demands and Schengen requirements to be met.

As far back as 2000, together with the process of stabilisation and accession, Croatia commenced active international and regional activities in order to improve traffic and transportation links with all the countries. With the assistance of EU funds the South-East Europe transport study TIRS (2000) and REBIS (2003) were produced. REBIS determined the South-East Europe basic transport network. A Memorandum of understanding was signed by seven South-East European countries and the EU determining the basis for joint network development through multi-annual development plans. In line with this Memorandum
Croatia has been intensively cooperating with the Region and the EU through SEETO. This cooperation has been demonstrated through the implementation of the Strategic Development Framework 2006-2013, the umbrella document adopted by the Government of the Republic of Croatia determining mid-term development policy in the country. As far as the transport infrastructure development is concerned, the document is based on the following principles:

- The application of market economy principles in the transport sector;
- The management of transport infrastructure;
- The provision of sustainable funding and maintenance.

The activities to be implemented in the next period will geographically be linked to the pan-European corridors and the basic South-East Europe transport network and will remain in compliance with the same parameters:

- upgrading of passenger and goods transport by the application of modern technological solutions;
- improvement of transport safety;
- creating conditions for green-field investments in the transport route areas;
- reducing negative environmental impacts.

Map No 2 - Transport Network 2009 - 2020

Source: Ministry of Maritime Affairs, Transport and Infrastructure (MMATI) and South East Europe Transport Observatory (SEETO)

Transport of goods and passengers

Since 2000, the transport of goods and passengers by all transport modes has been proportionally dynamic. In comparison to economic activity trends, it can be noted that
the transport of goods, as expected, followed the dynamics of GDP in the observed period, while the transport of passengers was a bit less intensive, but its growth accelerated in the last couple of years (see Figure 2).

**Figure 1 Public sector investments into transport**

![Figure 1 Public sector investments into transport](source: Central Bureau of Statistics of the Republic of Croatia)

**Figure 2 Trends in the overall transport of goods, passengers and GDP, 2001=100**

![Figure 2 Trends in the overall transport of goods, passengers and GDP, 2001=100](source: Central Bureau of Statistics of the Republic of Croatia)

If one examines closely the individual modes of goods transport, road and railway transport grew intensively, while there was no significant increase in other modes of goods transport. The quantity of transported goods was noticeably decreasing in inland waterway transport from 2001 (see Annex 2, Table 1: Goods transport).
In 2011 the road transport accounted for 64% of the total transport of goods and 44% of passengers.

In the same year the railway transport accounted for 10% of the total transport of goods and 43% of passengers.

The second most significant mode of transport of goods was maritime transport with 26% of the total quantity while the transport of passengers amounted to 11%.

1.1.1 Railway Transport

The Croatian railway network comprises, in total, 2,604 km of track, of which 254 km (9.3%) is double track and 2,468 (90.7%) km is single track; 985 km is electrified.

Croatia has the second largest portion (26%) of the SEE Core Rail Network which, in total, is 4,264 km long. Railway Corridor X, again on the SEE Core Network, is 1,058 km in length and accounts for about 50% of the overall length of the Corridor X. The Croatian part of Railway Corridor X on the SEE Core Network passes from Savski Marof on the western border via Zagreb and Vinkovci to Tovarnik on the eastern border and is 317 km long.

In terms of the density of the rail network, Croatia exceeds the EU average with 62 km per 100,000 inhabitants, as against 42 km per 100,000 inhabitants in the EU 27. During the war, great damage was inflicted on the railway infrastructure contributing to the fall in traffic on the railways. The lack of public funding during the past decade led to a backlog of investment and maintenance (see Annex 2, table 3: Railways: Main indicators, 2011).

Institutional Framework

As an internal unit of the Ministry of Maritime Affairs, Transport and Infrastructure, the Railway Sector is part of Directorate for Road and Railway Traffic. It has a general role in activities related to railways coordination and supervision, proposing policy of railway transport development, ensuring the implementation of set policies and enforces laws and regulations concerning railway infrastructure, transport and safety. Also, monitors the state of order of positive regulations of the European Union under the jurisdiction of railway transport and proposes and implements procedures for adjustment of positive legislation with EU regulations.

HŽ Infrastruktura d.o.o. operates under the Railway Act (OG No 94/13 and 148/13).

Railway infrastructure in the Republic of Croatia is a public good in general use, owned by the Republic of Croatia, and can be used on equal terms by all interested railway undertakings, under conditions prescribed by the Railway Act.

The management of railway infrastructure is an activity of public interest. Essential functions of the infrastructure manager are the following: construction of railway infrastructure and investment in railway infrastructure, maintenance and modernization of railway infrastructure, management of railway infrastructure safety system, provision of access and allocation of infrastructure capacities to all railway undertakings meeting the requirements laid down in the Railway Act, setting fees for infrastructure capacity usage, drawing up and publishing the timetable and organizing and regulating railway transport.

Pursuant to the Railway Act, railway infrastructure is managed by an infrastructure manager, a legal entity determined by the owner of railway infrastructure, i.e. by the Republic of Croatia.
HŽ Infrastruktura d.o.o. is the infrastructure manager of railway infrastructure in the Republic of Croatia.

According to the Railway Act, sources for financing of the railway infrastructure are the following:

1. the funds earned from collection of fees for the infrastructure usage,
2. the funds earned from collection of fees per liter paid excise tax on energy source,
3. State budget funds for maintenance of railway infrastructure and managing the railway transport,
4. State budget funds for construction, modernization, renewal and maintenance,
5. the funds from local and regional self-government budget,
6. the funds earned from investments by domestic and foreign legal persons,
7. the funds from other sources.

Track access charges

Under the Railway Act, article 23, railway infrastructure manager, HŽ Infrastruktura d.o.o., determines and levies charges for the use of railway infrastructure.

With the aim of carrying out transport operations on the railway infrastructure, railway undertakings pay charges for:

- minimum access package;
- track access to service facilities;
- use of service facilities;
- additional services;
- ancillary services.

Based on the HŽ-Hrvatske željeznice d.o.o. Separation Act (OG No 153/05), upon the day of its entry into the court registry, a holding company and four limited liability companies were established in 2006 and started operating from January 1, 2007. The companies within the holding company HŽ Hrvatske željeznice holding d.o.o. were HŽ Infrastruktura d.o.o., HŽ Putnički prijevoz d.o.o. (passenger operator), HŽ Cargo d.o.o. (freight operator) and HŽ Vuča vlakova d.o.o. (train traction). HŽ Hrvatske željeznice holding d.o.o. was owned by the Republic of Croatia.

In November 2012 legal status of the companies was changed by splitting the train traction company (HŽ Vuča vlakova d.o.o.) and merging its parts to the passenger and freight operator and by merging the holding company to infrastructure manager (HŽ Infrastruktura d.o.o.).

After this change the three railway companies are completely separated and still 100% state owned.

According to the HŽ Restructuring programme from 2012 it is planned that the three new companies will endeavour on significant internal reorganisation in order to become more sustainable and competitive. HŽ Cargo d.o.o. is to raise its revenue by 2,2% annually on average by 2016 by decreasing its internal expenditures by 3,6% annually on average which
includes contracting the company by around 2000 employees and raising productivity by large.

Similarly, HŽ Putnički prijevoz d.o.o. is set to by 2016 raise the passengers number by 22% with the revenue boost by 23% while lowering the state aid level in revenues under 45%. An aim is to raise the financial productivity by 20% also. This is to be reached by cutting expenses by rationalising and modernising the rolling stock, decreasing of number of employees by 500 and enhancing and developing new services especially in the urban/suburban domain.

The strategic goals by 2016 of HŽ Infrastruktura d.o.o. are to enhance the infrastructure off course, but also to make itself less dependable on state funding by optimising the size of the company by some 1000 employees and enlarge revenues from non-core business by 34%.

Upon the accession of the Republic of Croatia on 1st July 2013 the railway market will open and according to the information available it is estimated that foreign freight operators will be interested to enter Croatian railway market. As regards passenger transport there are no such indications so far.

**Map No 3 - Division of the type of rail tracks**

![Map of rail tracks]

*Source: Ministry of Maritime Affairs, Transport and Infrastructure (MMATI) & HŽ Infrastruktura d.o.o.*

**Investment in railway infrastructure**

Overall investment in the railway infrastructure from 2002 amounted to 129 million Euro annually on average, of which on average 4/5 related to the modernisation and construction of new railway lines, while the rest related to maintenance (see Annex 2, table 4: Investments and railway infrastructure maintenance investment 2002-2009).

Investment in railway lines of regional importance was modest so that the functional capacity of these lines continually reduced. The most critical and completely dilapidated sections of railway lines of local importance were only repaired, predominantly with re-
used material. The level of investment was insufficient given the age and dilapidated state of railway infrastructure.

Investment in the maintenance of railway infrastructure subsystems was directed at the procurement of material and spare parts, as well as works and services relating to the maintenance of functionality and the required conditions for the safe flow of traffic. The largest share of investment pertained to the maintenance of installations and open railway line equipment and railway stations of importance for international traffic, while the remaining investment was used for the rehabilitation of dilapidated equipment on railway lines of regional importance and railway lines of local importance where investment was very low. The scope of all the work together was too small to prevent the drop in the level of use and functionality on the entire railway network.

The network condition leaves ample room for improvement: in 2010 only 9.3% of Croatian railways were fitted with double tracks, and only 36.1% of the total network was electrified. Due to the poor condition of the infrastructure railway performance is significantly reduced, as manifested by the rather low commercial speeds on selected sections and recurrent train cancellations and delays.

An illustrative indicator of the poor condition of the railway network is the permanent speed limitation. As can be clearly seen from the railway operation conditions map below, the problem of reduced operating speeds is rather severe:

- Operating speeds along the Corridor X Croatian railway section, currently ranging from 60 km/h to 120 km/h, are below the envisaged standard of 160 km/h, based on AGC and AGTC Agreements;
- Speed is lowest on the sections: Savski Marof - Zaprešić - Zagreb and Dugo Selo - Novska;
- The longer travel times due to the speed limitations are aggravated by lengthy border waiting times.
Therefore, priority improvement projects included in the IPA Transport Operational Programme (TOP) indicative list of operations aimed to rehabilitate track, repair structures, signalling and communications, in order to increase the speed and reduce journey times, increase service quality and regenerate demand for this vital international transport route. It should be noted that all the problem sections mentioned are taken into consideration in the network improvement programme: while rehabilitation of the section Vinkovci - Tovarnik was completed in 2011 under ISPA 2005, other sections are being addressed in this TOP. The Vinkovci - Tovarnik - State border section was overhauled and its geometrical properties enable trains to reach a maximum speed of up to 160 km/h.

Taking again the actual speeds as an indicator for network quality and track condition, over a continuous 392 km of Corridor X the actual speed does not exceed 50% of the design speed according to MAP 2007-2011.

Due to the conditions of the railway infrastructure the average commercial speed of freight trains is around 26 km/h and the average delay is 1 hour per each 100 kilometres.

There has been only a modest improvement in Croatia and in the Core region since the REBIS study as shown in the MAP 2007-2011, 26% of the SEE Core Rail Network is still classified as poor, and a further 1% is classified as very poor, while only 8% is considered to be in good condition. According to the same source, speed restrictions may still be found on 70% of the network.
Before the war, major railway revenue came from Corridor X traffic. Rail traffic volumes dropped drastically during the 1990s on the Core Network sections, but are now gradually and steadily recovering as evidenced by recent traffic growth figures along Corridor X. As confirmed in the MAP 2007-2011, “significant traffic flow in terms of trains per day is reported for much of the (Core) network”.

Corridor Vb in Croatia is covered by the main railway line Botovo – Zagreb – Rijeka. This route connects the largest and the most significant Croatian port of Rijeka on the Adriatic Sea with the Croatian mainland and through it with Central European countries. It extends 328.7 km from the Croatian port of Rijeka to Botovo on the Hungarian border. It was built in the late 1880s and, although maintained, it is subject to many speed and weight restrictions and is expensive to maintain. The current TOP envisages investments in several railway sections along this corridor.

A very significant bottleneck is the Zagreb node connecting corridors X and Vb. This node is also the main station for daily migrations to the Croatia’s capital. The commuting area covers the wider area around the city of Zagreb and basically includes the whole north-west part of the country with the population of over 1,8 million out of 4,3 million in the whole Croatia. The Zagreb Main Station counts over 400 trains with about 80,000 to 100,000 passengers daily entering and leaving the station. Signalling and interlocking equipment at Zagreb Main Station was installed between 1939 and 1941 and only partial reconstruction of the system was performed later on. The consequences of outdated system are heavy maintenance needs and high rate of system failures. Since this node serves the most of the rail traffic it is essential to eliminate this bottleneck on corridors Vb and X, especially in rail passenger transport and to improve the interoperability of the

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1 Source: Croatian Bureau of Statistics, census 2011
line and upgrade its technical standards to those of a TEN railway corridor in line with EU requirements.

In terms of rolling stock, the freight fleet consists mostly of conventional covered or open wagons, some suitable for combined traffic operations. A large number of locomotives are in need of replacement, with an estimated 70% reaching the end of their working lives within the next decade. There are plans to install ETCS on the rail network, but these depend on locomotives which can run on the corridor also being equipped with the system.

The railway company has started to modernise their fleet of passenger coaches. To render passenger services more attractive, the railway company procured an initial series of modern tilting trains, to offer passengers a much more comfortable and quicker journey. According to international experience, trains that tilt can go up to 25% to 40% faster around curves than conventional trains without inconveniencing passengers, and hence can significantly increase average speeds and cut journey times without the need to change the railway track geometry.

As regards freight services, 50 new wagons have been built for RoLa (Rollende Landstrasse - Rolling Road) operation for promoting the use of the Spačva RoLa terminal, for which a corresponding RoLa terminal is planned in Zagreb area.

The modernisation of the rolling stock, in parallel to the planned line improvements, will be vital for strengthening the competitiveness of rail transport in comparison with other transport modes.

1.1.2 Inland waterways and Inland ports

The total length of navigable inland waterways within Croatia’s borders is 805.2 km, of which:

- The Danube is 137.5 km in length;
- The Sava is 448.2 km in length;
- The Drava is 198.06 km in length;
- The Kupa is 5.9 km in length;
- The Una is 15 km in length

539.7 km of waterway are classified as international inland waterways while the length of national and regional inland waterways is 265.5 Km. In total only 287.4 km of the rivers Danube, Sava and Drava comply with the requirements of an international class of waterway (IV class: minimum depth of 2.5 m for not less than 300 days a year).

The main river ports situated along these inland waterways are: Osijek, Sisak, Slavonski Brod and Vukovar. All four of these ports are classified as TEN-T ports and International Ports.

The Croatian internal waterway network also includes the Visovac and Kozjak lakes, which are located in the Krka and Plitvička Jezera national parks and are open to tourist navigation.

Institutional Framework
As an internal unit of the Ministry of Maritime Affairs, Transport and Infrastructure, the Inland Navigation Sector is part of Directorate for Maritime and Inland Navigation, Shipping, Ports and Maritime Domain. It has a general role in activities related to port authorities and the Agency for Inland Waterways coordination and supervision, proposing policy of inland transport development, ensuring the implementation of set policies and enforce laws and regulations concerning inland transport, shipping, ports and inland waterways. Also, monitors the state of order of positive regulations of the European Union under the jurisdiction of inland navigation and proposes and implements procedures for adjustment of positive legislation with EU regulations.

Harbour master offices are territorial units of the Ministry which are responsible for navigation safety inspection, conducting investigations of navigation accidents, inspection affairs, tasks of ascertaining worthiness of boats for navigation, tasks of ascertaining professional competency of crewmembers for acquiring the certification in inland navigation. Also, harbour master offices are responsible for conducting administrative tasks of registering and deletion of vessels in official records, tasks of issuing prescribed certificates and books, personal certificates of crewmembers and decision in misdemeanours procedures.

National River Information System (RIS) headquarters is responsible for harmonization of RIS system, operations and regional RIS centers procedures, RIS access and international data exchange in order to ensure interoperability.

Also, in jurisdiction of the Ministry - Inland Navigation Sector, as separate units, following public institution were established:
- Port Authority Vukovar
- Port Authority Osijek
- Port Authority Slavonski Brod
- Port Authority Sisak
- Agency for Inland Waterways

Inland port authorities are responsible for Inland ports management in areas of harbour master offices jurisdiction. Their primary activities are organisation and supervision of vessel berthing and manoeuvring in port, control of port traffic, maintaining common port facilities in port area, maintaining order in port, high degree of safety and protection of the environment in port, construction and modernisation of port facilities, managing the properties in port area in which building rights are held by port authority, supervising the work of port operators and port users carrying out port activities, promotion of a port on transport market and drafting the proposal of planning documents for development of port system on inland waterways.

Agency for Inland Waterways is responsible for construction, technical improvement and modernisation of Inland waterways in terms of transport technology, technical maintenance of inland waterways, rehabilitation of inland waterways and navigational safety facilities incapacitated as a result of natural disasters, inspection and supervision of the state of the inland waterways and ensuring functionality of River information services.
The total length of current inland waterways in Croatia is 805.2 kilometres, of which 601.2 kilometres is included in the European inland waterway network of international importance. According to the AGN agreements, the following waterways are included in the European inland waterway network:

<table>
<thead>
<tr>
<th>Waterway mark.</th>
<th>Waterway - route</th>
<th>Requested class according to AGN</th>
<th>Length km</th>
</tr>
</thead>
<tbody>
<tr>
<td>E 80</td>
<td>Danube from Batina to Ilok</td>
<td>VI c</td>
<td>137.5</td>
</tr>
<tr>
<td>E 80-08</td>
<td>Drava to Osijek</td>
<td>IV</td>
<td>22.0</td>
</tr>
<tr>
<td>E 80-10</td>
<td>Future multi-functional Danube-Sava canal from Vukovar to Šamac</td>
<td>V b</td>
<td>61.5</td>
</tr>
<tr>
<td>E 80-12</td>
<td>Sava from Račinovci to Sisak</td>
<td>IV</td>
<td>380.2</td>
</tr>
</tbody>
</table>

**Total length international waterway acc. AGN:** 601.2

Rivers in Croatia have been relatively underused as transport corridors. The most significant inland waterways in Croatia are the Danube and the Sava rivers, but as transport resources, they are relatively under-utilised. The river ports suffered heavy damage during the war; their infrastructure is in the poor state and inadequate to provide good quality services. Once the navigational conditions are brought back to pre-war levels and up-graded, there is the potential for the inland waterways to be used in combination with railway transport as an alternative to the currently dominant road transport network, as well as in other types of multimodal transport.
The present situation in inland waterway classification in the Republic of Croatia is following:

<table>
<thead>
<tr>
<th>River</th>
<th>Route</th>
<th>Length (km)</th>
<th>Waterway Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANUBE</td>
<td>1295+501 (Ilok) - 1433+000 (Batina)</td>
<td>137.5</td>
<td>VIc</td>
</tr>
<tr>
<td>SAVA</td>
<td>203+300 (Račinovci) - 305+700 (Sl. Šamac)</td>
<td>102.9</td>
<td>IV</td>
</tr>
<tr>
<td></td>
<td>305+700 (Sl. Šamac) - 330+200 (Oprisavci)</td>
<td>24.5</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>330+200 (Oprisavci) - 363+200 (Sl. Brod)</td>
<td>33.0</td>
<td>IV</td>
</tr>
<tr>
<td></td>
<td>363+200 (Sl. Brod) - 583+000 (Sisak)</td>
<td>219.8</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>583+000 (Sisak) - 651+000 (Rugvica)</td>
<td>68.0</td>
<td>II</td>
</tr>
<tr>
<td>DRAVA</td>
<td>0+000 (mouth with Danube) - 14+050 (Osijek port Nemetin)</td>
<td>14.0</td>
<td>IV</td>
</tr>
<tr>
<td></td>
<td>14+050 (Osijek port Nemetin) - 55+450 (Belišće)</td>
<td>41.4</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>55+450 (Belišće) - 198+600</td>
<td>143.2</td>
<td>II</td>
</tr>
<tr>
<td>KUPA</td>
<td>0+000 - 5+900</td>
<td>5.9</td>
<td>I</td>
</tr>
<tr>
<td>UNA</td>
<td>0+000 - 4+000</td>
<td>4.0</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>4+000 - 15+000</td>
<td>11.0</td>
<td>I</td>
</tr>
</tbody>
</table>

**Total length of existing inland waterway** 805.2 km

**Total Length of existing inland waterway - International class** 287.4 km

*Source: MMATI, Sector for Inland Navigation*

The total network density is 14 km per 1 000 km², which is relatively dense, compared to the average density of the EU inland waterway network of 9.4 km per 1 000 km². Furthermore, transport on the Sava is restricted due to low navigational safety caused by war debris and high local levels of sediment.

Importantly, the Danube waterway is a part of Pan-European Corridor VII, which links the North Sea (the Port of Rotterdam) and the Black Sea (Port Constance), and is one of the main European cargo transport routes with considerable growth potential.

Navigation on the Sava River was well developed in the nineties. The commercial waterway had a length of 586 km and reached from Sisak (Croatia), 50 km from the capital Zagreb, to Belgrade (Serbia). From the mouth of the Sava at the Danube, the river was Class IV (equal to a draught of 2.5m) up to Brčko, while from there to Sisak, it was Class III. Historically, the possibility of navigating all the way to Zagreb has been limited. Furthermore, navigability on the otherwise feasible river sections depends on seasonal conditions.

The total length of the river Drava is 330 km within the Republic of Croatia and it is navigable along 198.6 kilometres. From the mouth of the Danube the river Drava is classed as an international waterway up to 70.0 km, where commercial traffic is carried to the international port of Osijek. From the mouth of the Danube to 14.0 km the current state
of waterway meets the conditions of IV class, but there are occasional problems on voyages during low water levels, which require intensive dredging measures.\(^2\)

**Inland waterway ports**

According to AGN (European Agreement on Main Inland Waterways of International Importance) Croatia has two international inland waterway ports (Osijek and Vukovar) and several quays. However, due to diverse navigational conditions, technical and technological obsolescence and under-capacity, market demand for the transport of cargo on the Sava and Danube is uneven. Currently, the most important international inland waterway ports are the Port of Vukovar on Corridor VII, and the Port of Slavonski Brod, which is located at the intersection of two Pan-European Corridors (X and Vc).

The Republic of Croatia has established port authorities for the management of ports that are public non-profit institutions 100\% owned by the Republic of Croatia.

The activities of the port authorities, among other things, include:\(^3\):

- organising and supervising docking and the manoeuvring of vessels within the ports;
- port traffic control;
- maintaining order and a high degree of safety and environmental protection in the ports;
- construction and modernisation of port facilities on behalf of the Republic of Croatia.

**Commercial fleet**

Croatia's commercial fleet is comprised of 45 vessels, averaging 40 years of age, whose total capacity is slightly over 50,000 tonnes. These vessels participate in the international transport of cargo; however, their capacity falls short of meeting the transport demands both to and from Croatian inland ports. Domestic shipping companies thus participate with 39\% in this sort of transport.

**Transport of goods along inland waterways**

The transport of goods along inland waterways diminished over the years (see Annex 2, table 2: Transport of goods in inland waterway ports). In 2011 this mode of transport accounted for 0.4\% of total goods transport, which is considerably less than in 2005, when it amounted to 1.3\%. The transport of goods on the Danube has been on the increase, though; however, due to very poor safety conditions in the wake of the Croatian War of Independence, the transport of goods along the Sava has dropped dramatically. Before the 1990s, around 7.5 million tonnes of goods were being transported along the Sava annually; this figure has now dropped to as little as 268,000 tonnes.

On an individual port basis, an increase of traffic in the ports in the Danube basin and Drava corridor is evident (see Figure 4). The ports of Vukovar and Osijek reported a continuous growth of tranship cargo between 2000 and 2008; although because of the lack of infrastructure it did not reach the pre-war levels. The ports of Slavonski Brod and Sisak solely depend on the transport of crude oil between Slavonski Brod and Sisak, which is the only cargo that is recorded in these ports.

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\(^2\) See the Medium-term plan for the development of internal waterways and ports

\(^3\) See articles 137 and 138 of the Inland Navigation Act
1.1.3. Road Transport

In 2013 the public road network in the Republic of Croatia comprised a total of 26,964 km of roads, of which county and local roads cover 9,703 km and 8,980 km, respectively, 6,868 km are state roads, and 1,416.5 km are motorways and semi-motorways. In the period 2005 to 2010, especially high investments were made into the construction of motorways which increased their length during the mentioned period by 1.4 times. In 2009, the motorway density in Croatia amounted to 25 km per 100,000 inhabitants while in the EU 27 it is 14.

The Pan-European transport corridors Vb, Vc, X and Xa connect Croatia internationally and form part of the TEN-T network as follows: Vb (TEN-T Mediterranean corridor), Vc (TEN-T comprehensive network), X (TEN-T core network) and Xa (TEN-T comprehensive network).

Zagreb is situated at the crossing of Pan-European corridors X, Xa and Vb whilst Corridor Vc connects Ploče with Budapest and Eastern Europe. The following sections of the Croatian road network belong to the above mentioned networks:

- A2 Motorway - Pan-European Corridor Xa,
- A4, A1 (Zagreb-node Bosiljevo 2), A6 (node Bosiljevo 2-Rijeka) Motorways - Pan-European corridor Vb,
- A5, A10 Motorways - Pan-European corridor Vc,
- A3 Motorway - Pan-European corridor X.

The Adriatic Ionian Road Transport Corridor connects 7 countries (Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania and Greece) and the main seaports of the area with other Pan-European corridors (V, Vb, Vc, and VIII).
The interconnection and interoperability of national networks with trans-European networks remains a policy priority, alongside connections between TEN-Ts and state roads and secondary and tertiary nodes. Only 40.8\% of the national roads are in good or very good condition while 36.6\% are in poor and very poor condition and 22.6\% are in acceptable condition. Identified black spots need addressing in order to improve safety aspects and reduce their impact on the natural and urban environment and the Croatian landscape and heritage. In particular the construction of bypasses around urban centres and the connections/access roads to port infrastructure and business zones would reduce levels of traffic and congestion, with the associated problems of air and noise pollution and reduction in quality of life.

1.1.4 Air transport and airports

The Republic of Croatia has seven international airports (Zagreb, Dubrovnik, Split, Zadar, Pula, Rijeka and Osijek) and two air fields (Brać and Mali Lošinj), through which public air transport (regular and chartered flights) takes place, both national and international. The seven international airports are of 4E ICAO category and are classified as TEN-T airports. They are fitted with devices and equipment corresponding to current international safety and security standards.

From 2001 the air transport of passengers is steadily growing starting from around 1.2 million passengers and reaching over 5.6 million in 2011; 86.67\% of this volume was accounted for by the three biggest airports (Zagreb, Split and Dubrovnik). It is important to mention that there is a great difference in traffic volume between the summer season and the rest of the year. The air transport of goods did not reflect the passenger traffic trend and was hit by the global recession; starting with some 9,8 thousand tonnes in 2001.
and reaching high in 2009 with almost 15 thousand tonnes and then dropping back to 10,5 thousands in 2011.

Figure 4 Main traffic figures at airports

<table>
<thead>
<tr>
<th>Airport</th>
<th>Zagreb</th>
<th>Dubrovnik</th>
<th>Split</th>
<th>Pula</th>
<th>Zadar</th>
<th>Rijeka</th>
<th>Osijek</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Pax</td>
<td>2.192.453</td>
<td>1.191.474</td>
<td>1.203.778</td>
<td>397.226</td>
<td>157.978</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Cargo (tons)</td>
<td>10.849</td>
<td>997</td>
<td>1.070</td>
<td>11</td>
<td>3.963</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Movements</td>
<td>44.542</td>
<td>14.822</td>
<td>17.186</td>
<td>9.406</td>
<td>3.100</td>
<td>n/a</td>
</tr>
<tr>
<td>2009</td>
<td>Pax</td>
<td>2.062.242</td>
<td>1.122.355</td>
<td>1.115.099</td>
<td>315.168</td>
<td>215.868</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Cargo (tons)</td>
<td>10.065</td>
<td>516</td>
<td>813</td>
<td>13</td>
<td>337.919</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Movements</td>
<td>40.684</td>
<td>14.342</td>
<td>15.568</td>
<td>9.126</td>
<td>3.249</td>
<td>n/a</td>
</tr>
<tr>
<td>2010</td>
<td>Pax</td>
<td>2.071.561</td>
<td>1.270.062</td>
<td>1.219.741</td>
<td>330.582</td>
<td>275.272</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Cargo (tons)</td>
<td>8.156</td>
<td>406</td>
<td>710</td>
<td>9</td>
<td>15.975</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Movements</td>
<td>39.812</td>
<td>15.539</td>
<td>16.970</td>
<td>6.834</td>
<td>3.328</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Cargo (tons)</td>
<td>8.111</td>
<td>420</td>
<td>700</td>
<td>9</td>
<td>19.457</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Movements</td>
<td>42.360</td>
<td>16.050</td>
<td>17.480</td>
<td>6.984</td>
<td>3.399</td>
<td>n/a</td>
</tr>
<tr>
<td>2012</td>
<td>Pax</td>
<td>2.342.309</td>
<td>1.480.470</td>
<td>1.425.749</td>
<td>375.080</td>
<td>371.256</td>
<td>71.558</td>
</tr>
<tr>
<td></td>
<td>Cargo (tons)</td>
<td>8.133</td>
<td>357</td>
<td>650</td>
<td>11</td>
<td>10.516</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Movements</td>
<td>39.054</td>
<td>16.216</td>
<td>17.444</td>
<td>7.192</td>
<td>3.968</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: Croatian Bureau of Statistics of the Republic of Croatia

The demand on airports has a strong seasonality due to the tourism industry, provoking bottlenecks where the infrastructure lacks the required capacity. The Transport Development Strategy calls for risk mitigation, stating that the lack of infrastructure capacity in Croatian airports threatens to become a limiting factor to the country’s tourism industry.

Figure 5 Seasonal behaviour of airports

Source: Croatian Bureau of Statistics of the Republic of Croatia
In addition, increasing the capacity of airports can play an important role in maintaining accessibility and mobility to regions of Croatia, especially areas such as Dubrovnik where bottlenecks and congestion in the transport network and the isolation of the area limits regional development and tourism. Focusing on other modes of transport, airport may give an extra connection capability, when roads, railroads or waterways fail to tackle the required capacity.

1.1.5 Other transport sectors

Maritime transport and seaports

The two main cargo sea ports are the Port of Rijeka and the Port of Ploče, and the main passenger ports are the Port of Split, the Port of Zadar, the Port of Dubrovnik and the Port of Šibenik. All 6 ports are classified as TEN-T ports. The Port of Rijeka lies at the exit of Corridor branch Vb and is important for the transport of goods not only for Croatian territory, but also for Central and Eastern European destinations. The Port of Ploče, on the other hand, lies at the exit of Corridor branch Vc and is of particular importance for the economy of southern Dalmatia, Bosnia and Herzegovina, and also Hungary. Despite fluctuations in the maritime transport of goods, the transport of goods between seaports experienced constant growth. In 2011 the total transport of goods in seaports was 30.348,000 tonnes while in 2005 it was 29.975,000 tonnes.

Multi-modal operations are still at an early stage of development, with only the Port of Rijeka and the Port of Ploče registering significant container transport. The volume of container transport in the Port of Rijeka has witnessed notable growth over the last years, but it is still lagging behind competing ports in the region, the ports of Trieste and Koper.

Urban and suburban transport

Faced with the large growth of urban transport in the cities of the Republic of Croatia, city authorities have been taking a number of planning, technical and legal measures in order to reduce the unwanted effects of urban transport upon the life of city populations and, by doing so, increasing their mobility. The Association of Cities of the Republic of Croatia with its 101 members addresses this issue through their regular programming activities with a number of cities working on their urban/suburban transportation activities (Osijek, Rijeka, Zadar). Furthermore, the new national Transport Development Strategy which is currently being drafted envisages the inclusion of a section on the development of urban and suburban transport with the special emphasis on the usage of clean fuel and generally environmental protection issues.

The City of Zagreb, the capital of Croatia, requires specific mentioning, since it leads the way in the implementation of measures regarding clean and safe urban transport and also because it has 3/4th of passengers in urban traffic. In 2010 the number of private vehicles per 1,000 inhabitants was 490 which results in congestion and parking problems.

Strategic documents, the spatial map of the city of Zagreb and the General urban plan for the city of Zagreb promote the concept of public urban transport and have a restrictive attitude towards car transport. Considerable funds are being directed towards public transport. For example, from 2005-2010 142 new trams were bought.

In 2011 Zagreb owned 214 low-floor articulated and solo buses. Since it is clear that public transport is the best solution for cities and their surroundings, city buses are being adapted for bio-fuel use. According to development plans, buses in Zagreb will be using
strictly bio fuels in the next couple of years. In cooperation with related scientific institutions studies have been written and traffic monitoring has been conducted on the ground to find best solutions for promotion of public transportation in conformity with high environmental standards.

**Multi-modal transport**

Multi-modal transport in Croatia is only at its inception. There are three container terminals in the country which are operated by the HŽ Group. Their characteristics are as follows:

**Vrapče (Zagreb)** - equipped for handling of containers, the exchange of lorry trailers and for road going articulated lorries up to 40 tonnes in weight;

**Brajdica (Rijeka)** - equipped for the handling and storage of containers, RO-RO (Roll on - Roll off) trailers and other vehicles, as well as for handling heavy pallets and aggregates. It can accept 250,000 TEU annually;

**Spačva** - located in the area of the Spačva railway station, near the Zagreb - Lipovac motorway (Pan-European Corridor X.). The terminal is primarily intended for RO-LA operations. It is 20 km away from the Serbian border to the west (Corridor X) and 22 km from the border with Bosnia and Herzegovina to the north (Corridor branch Vc).

The overall growth of rail container traffic is closely related to the turnover and development of the Port of Rijeka. There is no container traffic on Croatian inland waterways.

In 2008, another RO-LA terminal was built in the Zagreb marshalling yard area.

**1.1.6 Freight Traffic**

Over a five year period, the picture is as follows:

In 2011, Croatian carriers transported a total of 129.746 million tonnes of merchandise in railway, road (public and private transport), sea and coastal transport, transport on inland waterways, air transport and pipeline transport. The split by modes is shown below:

<table>
<thead>
<tr>
<th>Goods ('000 t)</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road transport</td>
<td>63.840</td>
<td>66.814</td>
<td>110,812</td>
<td>92.847</td>
<td>74.967</td>
<td>74.645</td>
</tr>
<tr>
<td>Seawater and coastal</td>
<td>31.423</td>
<td>32.420</td>
<td>30.768</td>
<td>31.371</td>
<td>31.948</td>
<td>30.348</td>
</tr>
<tr>
<td>Inland waterway transport</td>
<td>1.509</td>
<td>1.468</td>
<td>880</td>
<td>533</td>
<td>515</td>
<td>502</td>
</tr>
<tr>
<td>Air transport</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*Source: Croatian Bureau of Statistics of the Republic of Croatia*

**Railway Freight Trends:** While the data regarding railway traffic for the period between 2000 and 2007 showed an upward trend and in terms of tonnes carried, the figures rose by 40% in the given years, the performance has changed in the last 3 years (see table above) and a negative trend emerged.
Looking closer at railway freight operations, the following picture emerges:

- 260 trains were used on a daily basis for the railway transport of cargo. Their commercial speed was 26 km/h and typical (average) delays were 66 minutes per 100 kilometres. The average weight of freight trains was 749 tonnes, and the coefficient of empty wagon travel was 0.79.

Inland waterway freight transport on the Danube River is steadily increasing, whilst on the Sava River it is stagnating at low levels, mostly due to very poor basic safety conditions for navigation in the lower part of the river. In 2010, public cargo transport amounted to 515,000 tonnes, excluding Danube transit transport.

The annual river transport figures are based on information provided by the Port Authorities and are expressed in tonnes transported. The increase in activity in Croatian ports is due to an increase in international cargos. From 2005 to 2010, the total river transport cargo decreased from 1,446,000 tonnes to 515,000 tonnes in the ports of Osijek, Sisak, Slavonski Brod and Vukovar.

1.1.7 Passenger traffic

Over the last decade the picture has been as follows:

In 2010, Croatian carriers transported a total of 117.548 million passengers on various inter-urban transport routes. The split by modes is shown below:

<table>
<thead>
<tr>
<th>Mode</th>
<th>Passengers / '000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2006</td>
</tr>
<tr>
<td>Railway transport</td>
<td>46.212</td>
</tr>
<tr>
<td>Road transport</td>
<td>63.576</td>
</tr>
<tr>
<td>Inland waterway transport</td>
<td>0</td>
</tr>
<tr>
<td>Air transport</td>
<td>2.148</td>
</tr>
</tbody>
</table>

Source: Croatian Bureau of Statistics of the Republic of Croatia

In 2010 domestic passengers accounted for 95.1% of all passengers and 71.7% of total passenger kilometres. International travellers accounted for the remaining 4.9% of total passengers, but 28.3% of passenger kilometres.

Over 600 trains are used every day in domestic passenger transport. In total, 93 trains are used for international passenger traffic, the most significant passenger services/lines being:

- Zagreb to the following destinations (and vice versa): Vienna, Budapest, Munich, Venice, Zurich, Ljubljana, Sarajevo, Belgrade.
- Rijeka - Budapest and Rijeka - Ljubljana.

Railway Passenger Trends:

The last two years’ figures confirm the overall trend. Railway performance, in terms of passengers carried, grew by almost 103.11% during the 2000-2008 period. Railway
performance measured in passenger kilometres travelled increased from 1,266 million to 1,742 million during 2005-2010.

The statistics show that volume growth in railway passenger traffic originates from short-distance urban and suburban traffic, which can be seen as an important growth market for the railways.

As to service quality, the commercial speed of passenger trains was 48 km/h and trains were typically 5 minutes late for every 100 km of travel.

1.1.8 Modal split between transport modes

The resulting modal split for both passenger and freight traffic is depicted below for the year 2011, measured in passengers and tonnes carried:

Figure 6 Structure of passengers by transport mode, 2011, in 000 of passengers

![Figure 6: Structure of passengers by transport mode, 2011, in 000 of passengers](image)

Source: Croatian Bureau of Statistics of the Republic of Croatia

Figure 7 Structure of freight by transport mode, 2011, in 000 tons carried

![Figure 7: Structure of freight by transport mode, 2011, in 000 tons carried](image)

Source: Croatian Bureau of Statistics of the Republic of Croatia
The charts demonstrate the dominance of road transport in carrying 58% of freight and the dominance of rail transport in carrying 50% of passengers.

It needs to be borne in mind in this context, that the Croatian railway network suffered great damage during the war. Its rolling stock - locomotives and wagons - were either heavily damaged or looted and plundered. Because of this, and also because of the fall in economic activity during and after the war, railway traffic has still not attained pre-war levels.

Similarly, transport on the Sava River has practically disappeared, mainly due to fairway obstructions caused by the war.

Furthermore, the following points should be noted:

- The market share of railways is particularly weak with regard to freight movement (8.00%), not least due to low commercial train speeds, while the market share of inland waterways is currently almost insignificant;
- The lion’s share of both freight and passenger traffic is carried by road. The strong competitive position of the road mode is reflected in the fact that the annual increase of freight carrying vehicles has been more or less in line with GDP growth;
- However, as seen from past improvements in both the railway and the river transport sectors, there are positive signs of revitalisation which must be further boosted to reflect the European trends.

1.1.9 Cross-border traffic

In 2010 21.759 million passenger vehicles entered Croatia by road, which was 8.1% increase over 2006 (19.995 million vehicles). Of this number, 65.48% of the vehicles were registered in other countries.

In the same year, a total of 71.089 million passengers entered Croatia (all modes), which was a 2.1% increase over 2006. Of this number, 22.311 million were of Croatian nationality (a 1% increase over 2006) and 48.778 million were foreign nationals (a 2.6% increase).

Most interestingly, 66.743 million or 95.9% of passengers entered the country by passenger car, a figure which clearly illustrates the traffic generation effect created by the new motorway network.

1.1.10 Environmental impact of transport

According to the European Environment Agency, in 2008 greenhouse gas emissions from the transport sector in Croatia amounted to 20.3% of the total. Within the transport sector, the contribution of the road transport sub-sector was 91%. The levels of greenhouse gas emissions caused by transport in 2008 exceeded 1990 emission levels by 53%. This increase is somewhat, though not significantly, larger than the average increase of transport-related greenhouse gas emissions in the EU-27, which at the time amounted to 36% (see Annex 2, Greenhouse gas emissions due to transport, 1990-2008).

In Croatia, transport accounts for 34% of total ultimate energy consumption. This corresponds to the EU-27 average, which is 33% (see Figure 6).
Investing in modern infrastructures and combining it with other types of measures (especially in the case of transport) and using the potential synergies between the sectors (such as Intelligent transport systems for Roads and smart grids) will allow for the reducing of polluting emissions such as local air pollutants and noise, and of other negative impacts on the Croatian environment, landscape and heritage.

**Figure 8 Share of traffic in total ultimate energy consumption in 2008**

![Figure 8](image)

*Source: Eurostat Energy*

### 1.1.11 Regional and local disparities

There are two NUTS II regions in Croatia: Continental and Adriatic Croatia. Continental Croatia NUTS II region has two relatively distinctive sub-regions transport wise: The Northwest area and the Pannonian area.

Northwest area has a 60% higher density of road network in relation to the national average and it is the most developed according to this indicator. This is logical, since this region includes the City of Zagreb which is the hub of the local transport axes as well as it includes intersections of most branches of the international transport corridors that pass through Croatia.

Furthermore, railway Corridor X passes through this subregion. However, with regard to the density of railway network being 39.18 km of railways per 100,000 inhabitants, Northwest Croatia is in the worst position in relation to the national average (61.34 km per 100,000 population), and is also below average for the EU-27, which is 43 km per 100,000 inhabitants. Only Northwest Croatia has maintained the same volume of railway traffic.

On the other hand, Pannonian subregion has the most developed railway infrastructure measured by the density of railway network, which is at 88% of the Croatian average. The counties which have the lowest railway network density are Požega-Slavonia and Osijek-Baranja. Through Pannonian Croatia passes the Croatian part of the major Pan-European railway corridor X and the modernisation of the railway infrastructure on this route would create great potential for the economic development of the region.

Pannonian Croatia also has great potential for inland waterway traffic. The rivers Sava, Drava and Danube constitute a European waterway network while the ports of Vukovar,
Slavonski Brod and Sisak form part of the port network open to international traffic. Major river ports on the inland waterway network are Osijek, Sisak, Slavonski Brod and Vukovar. The most important inland waterways are the rivers Danube and Sava. However their transport potential is relatively unused.

The total density of the network is significant in comparison with EU countries. The traffic on the Sava river (as well as port activity) is currently limited due to the low level of navigational safety on the downstream section of the river due to war debris as well as to high sediment levels in some locations.

The second NUTS II region - Adriatic Croatia, measured according to density of road network, is approximately on the average level in Croatia. The Istria County has the greatest road network density in Adriatic Croatia, and the road infrastructure in the Lika-Senj County is the most developed. Almost 80% of the investment in the construction and reconstruction of highways in the 2005-2008 period took place in Adriatic Croatia. Investment in motorways in the same period concerned mainly junctions to highways which were entirely made in the Adriatic region. This region also received the majority of the investment in road reconstruction. Nevertheless gaps or pinch points in the road network require investment in order to enable local and regional centres to feel the economic benefit of the major networks, to improve the opportunities for multi-modal transport options (i.e. better road links to port infrastructure) and to reduce negative environmental impacts from congestion.

Part of Adriatic Croatia is crossed by branches of international railway corridor Vb (Rijeka-Zagreb-Budapest) and Vc (Ploče-Sarajevo-Osijek-Budapest), which connects this region with Central Europe. Railway traffic, in comparison to 1997, recorded a drop of as much as 33.6%. A significant problem is that the direct railway connection of the ports to the rest of the country is very poor, which partly explains the drop in traffic (traffic has shifted from the railways to the roads and motorways). The two main cargo ports are Rijeka (Primorje-Gorski kotar County) and Ploče (Dubrovnik-Neretva County), the main passenger ports are Zadar, Split and Dubrovnik. Only Rijeka and Ploče have significant container traffic.

Adriatic Croatia has 5 international airports, and 2 domestic airports. Nevertheless, increasing tourist traffic (airports in the Adriatic Croatia recorded about 3.1 million passengers in 2009, which compared to 1997 represents an increase of 270%) creates a need for investment in the quality and capacity of the service.

Transport Development Strategy of the Republic of Croatia develops the concept of functional regions, and highlights the isolation of the Southern Dalmatia region from the rest of Croatia, noting that all possibilities and measures should be considered and taken to improve the region’s transport connectivity. The economy of the region is based mainly on tourism which generates an important volume of traffic in the area and is a significant threat to the future needs of the transport system.

1.2 Lessons learnt from previously implemented EU interventions

Based on information presented in the previous chapter there is a clear need to encourage a balanced development across the different transport sub-sectors, which previously focused on developing the motorway network. In this respect a start was made in redressing this imbalance with the selection of the areas of intervention under the ISPA and IPA pre-accession funds.
Experience under ISPA and IPA

After official candidacy status was acquired in June 2004, pre-accession aid under the Instrument for Structural Policies for Pre-Accession (ISPA) became available as of 2005, and it focused on the improvement of transport infrastructure and the creation of facilities to enable European environmental standards to be respected. The utilisation of ISPA was carried out in line with National ISPA Transport Strategy elaborated by MMATI and entailed the implementation of one infrastructure and one technical assistance project - Vinkovci to Tovarnik to State Border Railways Rehabilitation (28.789.180,00 EUR from ISPA), and Technical Assistance for IPA Pipeline Preparation (482.130,00 EUR from ISPA).

As of 2007 onwards the integrated Instrument for Pre-Accession Assistance (IPA) replaced all the previous funding instruments (PHARE, ISPA, SAPARD) providing a unique framework for EU aid until accession. The IPA TOP 2007-2013 was allocated a budget of 126.7 million EUR for the following priority axes:

1) upgrading Croatia’s rail transport system;
2) upgrading Croatia’s inland waterway system; and
3) technical assistance.

IPA interventions in the railway sector built upon the ISPA project with the aim of continuing to improve the standard of Croatian railways, in particular the line along TEN Corridors X and Vb within Croatia, so that they increasingly meet EU requirements.

IPA interventions in the inland waterway sector have focused on the preparation of technical documentation for the rehabilitation of the Sava river waterway to category IV navigational status and upgrading the inland ports.

Upon Croatia’s accession the IPA TOP was transformed into the TOP 2007-2013 Structural Funds.

Lessons learnt

The experience and capacity developed during the implementation of EU pre-accession programmes are incorporated within this Operational Programme, which actually represents a “extended continuation” of the priorities of the IPA TOP, with the addition of one further priority axis to cover other transport sectors. In both ISPA and IPA experience was acquired and lessons learned from the preparation and implementation of the EU programmes and projects, from which the following conclusions can be drawn:

- Administrative capacity is crucial for the efficient and effective utilisation of funds; slowly the capacities are being developed on all levels, both in horizontal and vertical terms. The key to success lies in the full alignment of procedures, systems and structures applicable to both EU and national programmes. Despite increased capacities that are evident on all levels, there is still a great need for technical assistance and capacity building in all phases of the programme cycle - programming, implementation and management, monitoring and evaluation, etc. and at all levels (managing authorities, final beneficiaries, partners, etc.);

- Skilled and motivated staff are essential for the success and further efforts are needed to identify, train, develop and especially retain a body of such staff;

- An inadequate and ill-prepared project pipeline is counter-productive for the use of funds. Therefore, particular attention should be paid to the preparation of a sufficient number of well designed and mature projects (in particular regarding
project design and tender documentation) and in that respect vertical and horizontal coordination between the different institutions is of paramount importance;

- The preparation of good projects take time, especially for major projects, and rushing the preparation can only lead to problems in implementation and the justification of expenditure. In this respect it has to be remembered that co-financing is the key issue for which all arrangements must be made before submission of the project for approval;

- With regard to increasing capacity at a local and regional level, special attention needs to be paid to promotion, publicity measures and the dissemination of information to all key stakeholders, but also to the wider public, as ultimately absorption will depend on the capacity of the final beneficiaries who have to be well informed and capable of preparing and implementing good projects in an efficient and effective manner.

1.3 Strengths, Weaknesses, Opportunities and Threats (SWOT analysis)

A SWOT analysis has been carried out separately for each sub-sector to give a broader picture of the transport sector as a whole. The result is presented in the form of a table overleaf.
### SWOT tables

#### Railways

<table>
<thead>
<tr>
<th>Strengths (internal and current)</th>
<th>Weaknesses (internal and current)</th>
<th>Opportunities (external and future)</th>
<th>Threats (external and future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Favourable geographical network positioning for the development of international traffic as part of the Pan-European transport corridors X, V and VII;</td>
<td>• Under-developed and non-uniform technical parameters i.e. lack of double track, electrified tracks, modern rolling stock etc.;</td>
<td>• To increase the quality of services, railway productivity and efficiency in order to regain market shares in passenger and freight transport, and especially create a new market for the railways for long distance travel along the TEN-T Corridors X and Vb;</td>
<td>• Lack of substantial investment will reduce the competitive edge of railway transport to the benefit of other modes of transport and, in international transport, such a situation will prove beneficial to foreign railway companies, as well as to other competing modes, in particular road transport;</td>
</tr>
<tr>
<td>• Croatia and its surrounding countries have the same railway gauge;</td>
<td>• Extensive network speed restrictions due to technical parameters and lack of maintenance;</td>
<td>• To develop the concept of inter-modal transport;</td>
<td>• Croatia loses out in international corridor competition;</td>
</tr>
<tr>
<td>• High volume mode of transport for bulk commodities;</td>
<td>• Poor connections to the inland waterway and maritime ports;</td>
<td>• To provide an attractive, fast and economically competitive alternative to road transport for both freight and passenger traffic;</td>
<td>• Insufficient investment in seaports could diminish the competitiveness of railway transport in Croatia, namely, redirecting goods transport to alternative railway directions.</td>
</tr>
<tr>
<td>• Safe, energy-efficient and environmentally friendly mode of transport;</td>
<td>• Poorly developed multi-modal capacity.</td>
<td>• To fully take advantage of the increase in urban, sub-urban and intercity transport demand and to contribute to and profit from the revitalisation of domestic sea and inland waterway ports;</td>
<td>• Capacities are insufficiently used;</td>
</tr>
<tr>
<td>• Less dependency on weather conditions than alternative modes.</td>
<td></td>
<td>• Cost saving potential and synergies in case of coordinated civil works with other sector (e.g. ICT, energy).</td>
<td>• Lack of substantial investment will degrade river services to an absolutely marginal level of importance within the Croatian transport sector;</td>
</tr>
</tbody>
</table>

#### Inland waterways

<table>
<thead>
<tr>
<th>Strengths (internal and current)</th>
<th>Weaknesses (internal and current)</th>
<th>Opportunities (external and future)</th>
<th>Threats (external and future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High volume mode of transport for bulk commodities;</td>
<td>• Physical navigation obstacles preventing use of long sections of fairway;</td>
<td>• To re-introduce IV category navigational level to defined sections of Croatian waterways;</td>
<td>• Capacities are insufficiently used;</td>
</tr>
<tr>
<td>• Safe, energy efficient and environmentally-friendly mode of transport;</td>
<td>• Insufficient maintenance and outdated infrastructure of waterways and river ports;</td>
<td>• To provide an efficient, cheaper and more attractive alternative to road transport for the movement of bulk cargoes;</td>
<td>• Lack of substantial investment will degrade river services to an absolutely marginal level of importance within the Croatian transport sector;</td>
</tr>
<tr>
<td>• Traffic can operate 24 hours a day, 7 days a week, which enables</td>
<td>• Relatively low commercial speed</td>
<td></td>
<td>• Lack of investment will result in</td>
</tr>
</tbody>
</table>


great flexibility of scheduling operations;
- The inland waterway network covers a large proportion of Croatia.

and hence, long travelling times;
- Poor connections to other transport modes;
- The main inland waterway forms the border with Bosnia which makes improvements difficult and slow to implement.

To revitalise the Sava River basin economy and promote industrial settlement and tourism in the river vicinity, including navigable tributaries;
- To develop multi-modal transport links to provide a more competitive alternative to road transport;
- To regain market shares in freight transport in river commodity markets.

the continued stagnation of the economy of the Sava river basin area;
- Specific interests of gravel extraction and transportation companies.

<table>
<thead>
<tr>
<th>Strengths (internal and current)</th>
<th>Weaknesses (internal and current)</th>
<th>Opportunities (external and future)</th>
<th>Threats (external and future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network well developed albeit with gaps;</td>
<td>Global condition of pavement on the national roads: acceptable:44%, fair:26%; poor: 30%;</td>
<td>Better use of national roads after construction of a motorway network;</td>
<td>Risk of pollution increases, although progressively older cars are being replaced by new vehicles equipped with catalytic converters;</td>
</tr>
<tr>
<td>Technically uniform national road network;</td>
<td>Insufficient capacity of national roads in urban areas and resultant negative impact on the environment;</td>
<td>Capacity of national roads in urban areas will increase after completion of road bypasses for Rijeka, Split and Osijek;</td>
<td>Insufficient upgrade of traffic and transport facilities may be detrimental for traffic safety and for the natural environment.</td>
</tr>
<tr>
<td>National roads connected with motorway network;</td>
<td>Technically inadequate stock of passenger cars and trucks;</td>
<td>Improvement of road condition will result in an increase in transport of goods and commercial cargo;</td>
<td></td>
</tr>
<tr>
<td>Even smallest communities are linked to national road network through county and local roads;</td>
<td>Insufficient investment in road maintenance and national road network development;</td>
<td>Higher road transport will lead to revitalisation of Croatian ports on the Adriatic;</td>
<td></td>
</tr>
<tr>
<td>High proportion of paved roads (national roads: 98%, county roads: 89%, local roads: 70%);</td>
<td>Links between local, regional and national roads and motorways/other transport infrastructure are insufficient / incomplete;</td>
<td>Better use of combined transport;</td>
<td></td>
</tr>
<tr>
<td>Road maintenance contracting/privatisation;</td>
<td>Lack of city bypass routes;</td>
<td>The road corridors will also accommodate municipal services infrastructure (power lines, water pipelines, electronic communications) essential for regional development;</td>
<td></td>
</tr>
<tr>
<td>Favourable position for establishing links between the Central and South-Eastern Europe.</td>
<td>Dangerous black-spots on road network;</td>
<td>Improvement of road condition will open and upgrade new business and tourist industry zones;</td>
<td></td>
</tr>
<tr>
<td><strong>Maritime Transport and Sea Ports</strong></td>
<td><strong>Strengths</strong> (internal and current)</td>
<td><strong>Weaknesses</strong> (internal and current)</td>
<td><strong>Opportunities</strong> (external and future)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>• Importance of the maritime transport and related industries for the economy of the Republic of Croatia;</td>
<td>• Lack of a strong national shipping line;</td>
<td>• Modernisation and development of the sea ports to ensure the continuous and sustainable development of the Adriatic islands and coastal communities, particularly through the development and maintenance of an efficient public maritime transport network;</td>
</tr>
<tr>
<td></td>
<td>• Significance of the sea port sector for overall transport efficiency, particularly in the context of existing and future transport corridors, including the Far East - Europe corridors;</td>
<td>• Lack of common integrated development strategy of the sea ports, atomised market;</td>
<td>• Construction and modernization of land based infrastructure;</td>
</tr>
<tr>
<td></td>
<td>• Harmonization of the Croatian legal system with acquis communautaire, particularly in the areas of maritime transport, safety at sea and maritime environmental protection;</td>
<td>• Problem of national shipbuilding;</td>
<td>• Connection of activities with the coastal culture;</td>
</tr>
<tr>
<td></td>
<td>• Experience and tradition in the national and world market.</td>
<td>• Usage by most merchant of international flags of convenience;</td>
<td>• Possibility of developing short range maritime shipping for which the east Adriatic coast has exceptional potentials.</td>
</tr>
<tr>
<td><strong>Air transport and airports</strong></td>
<td><strong>Strengths</strong> (internal and current)</td>
<td><strong>Weaknesses</strong> (internal and current)</td>
<td><strong>Opportunities</strong> (external and future)</td>
</tr>
<tr>
<td></td>
<td>• Relative high density of existing airports;</td>
<td>• Small capacity and weak infrastructure of airports;</td>
<td>• Construction and modernisation of land based infrastructure;</td>
</tr>
<tr>
<td></td>
<td>• Increasing trend for passenger and cargo traffic;</td>
<td>• Poor connections to other transport modes;</td>
<td>• Focus of the national economy on tourism;</td>
</tr>
<tr>
<td></td>
<td>• Good geo-traffic location at the intersection of air routes for southern, eastern and central Europe;</td>
<td>• High seasonality of traffic volumes, especially for Split and Dubrovnik, and resultant bottlenecks;</td>
<td>• New opportunities from EU accession and Single Market.</td>
</tr>
<tr>
<td></td>
<td>• Strong demand from tourism.</td>
<td>• Lack of capacity leads to reduction in quality and safety of service.</td>
<td></td>
</tr>
</tbody>
</table>
### Clean urban and suburban transport

<table>
<thead>
<tr>
<th>Strengths (internal and current)</th>
<th>Weaknesses (internal and current)</th>
<th>Opportunities (external and future)</th>
<th>Threats (external and future)</th>
</tr>
</thead>
</table>
| • Increasing awareness of the necessity for clean urban transport as part of the quality of life;  
  • Usage of propan-butane, Bio-diesel and liquid natural gas in vehicles (Zagreb). | • Increase of individual transport in cities;  
  • Unreliable, slow, uncomfortable and expensive public transportation;  
  • Traffic lanes used for public and individual transportation. | • Encouraging public transportation;  
  • Increased usage of alternative fuels/energy for public transport;  
  • Improvement of tram/rail urban and suburban transport;  
  • Innovations in public transportation. | • Lack of financing for public transportation facilities and fleets;  
  • A business environment which implicitly encourages road transport;  
  • Lack of vision and will on the local level for the introduction of integrated public transport. |
1.3.2 Defined Problems and Challenges in priority sectors

Railway transport

The main problems of the railway transport sector are linked with the capacity of the existing railway network, inadequate tracks and rolling stock in view of the demand and quality standards, as well as obsolete rail signalling and electronic communication systems.

Due to their significance to the Croatian economy as a whole, in addition to the wider economy of the surrounding region, the improvement of the railway connections to the maritime ports is of paramount importance. The aim would be to provide a cost effective, faster and environmentally friendly alternative to the shipping of (principally) goods by road thereby improving the competitiveness of the ports, redressing the current transport mode imbalance and reducing transportation costs as a whole for all carriers.

There is a clear need for better passenger commuter railway lines since the steady rise of this segment of transport offers a great opportunity to develop the sector, but also to mitigate the choke points in urban and suburban areas and contribute to the labour mobility.

The challenges of the sector are to increase the quality of services, railway productivity and efficiency, increase its participation in the multi-modal transport of goods and integrate it within the European network.

Inland waterways

The main problems of the inland waterway sector are: the damage inflicted to the river ports during the war, the port infrastructure being in poor condition and inadequate for the provision of quality services, relatively poor navigational conditions on the inland waterways, and the antiquated and limited capacity of the fleet. In addition, the result of the breakup of former Yugoslavia has resulted in a situation where Croatia’s main river, the Sava, forms now an international border with Bosnia, whilst its connection to the Danube river is in the Republic of Serbia. The effect of this situation is that any improvements carried out on the River Sava have to be implemented in close cooperation and in parallel to the activities carried out by the Republic of Bosnia and Herzegovina and Republic of Serbia.

The unbalanced development and the existence of bottlenecks on the waterways are the main problems affecting this mode of transportation. These problems should be addressed by coordination at Community level, so it is important that Croatia is actively involved in implementing the European action plan and the Danube Strategy. The Medium Term Development Plan is a national action plan at the level of infrastructure of waterways and inland waterway ports, based on the River Transport Development Strategy adopted by the Croatian Parliament in June 2008.

In conclusion, the Croatian internal waterway network is a significant, but at the same time almost completely unused part of Croatia’s national wealth. Therefore an extremely deliberate and rational approach to future development and water management is required.

Roads

The road network in Croatia is fairly well developed, in particular the motorway network has received considerable investment in the past few years. Nevertheless, there are identified gaps in the network, where the national, regional and local roads are not
adequately linked into the major networks and hence local areas do not receive sufficient economic benefits or opportunities from the strategic transport links that have been developed. Secondary connectivity – ensuring the accessibility of smaller regional centres and rural areas as well as secondary and tertiary nodes to the road TEN-T network, through the removal of bottlenecks, is a key challenge in this transport mode. In addition, connections to other transport nodes and between the islands and the mainland are insufficient and hence the (re)construction of road links to other transport infrastructure, and between the mainland and islands needs to be a focus of any investment in this transport sector.

There is a clear need for bypass routes around main centres in Croatia to avoid congestion and the negative environmental impacts associated with it.

The challenges for the sector are to increase the quality, efficiency and safety of the road network, to increase the sector’s participation in the multi-modal transport of goods and passengers and to ensure integration of lower level roads into the major networks and hence within a wider European framework.

Air

The key problem in this sector is the lack of capacity, in terms of both infrastructure and operability, and the seasonality of demand on this sector. This impacts upon the quality and safety of the service and risks becoming a limiting factor in the development of the tourism sector and economic growth. This is of particular concern in the Southern Dalmatia area where Dubrovnik is physically isolated from the rest of the country and suffers bottlenecks in the height of the tourist season.

The challenge for this sector is to increase capacity and therefore safety and quality of the service, economic and environmental sustainability and to ensure improved ability to process passengers and cargo. In addition the sector needs to be prepared for and compliant with EU Schengen border requirements from 2016.

1.3.3 Definition and hierarchy of needs in priority sectors

**Railways**

The main priority needs in the railway sector are:

- to develop railway infrastructure in Croatia, concerning in particular the interconnection and interoperability of national networks with the trans-European networks;
- to improve and develop the railway connections with other transport modes in order to develop multi-modal transport networks;
- to secure a greater share of passenger and freight transport in relation to other transport modes.

**Inland waterways**

The main priority needs in the inland waterway sector are:

- to establish, maintain and improve conditions for safe and reliable inland navigation on the river Sava. In practice this means ensuring international waterway class IV status along a defined section of the river;
- to better connect the inland waterway network with the main road and rail corridors in order to achieve better integration with the economic hinterland and to create preconditions for the development of inter-modal transport;
- to upgrade port infrastructure in order to provide greater capacity and better services;
- to install and operate the River Information System.

Roads

The main priority needs of road sector are:

- to improve regional accessibility and mobility through connecting secondary and tertiary nodes to the road TEN-T network;
- to improve connections between the road network and other transport infrastructure and therefore future potential inter-modality;
- to ensure bottlenecks are identified and addressed, in order to improve safety aspects and reduce negative environmental impacts on the environment and Croatian heritage and landscape;
- to construct bypasses for major urban centres and improve the traffic flow and travel time of people and goods on the road network and reduce congestion;
- to improve connectivity between the islands and the mainland.

Air

The main priority needs of the aviation sector are as follows:

- to improve capacity of the infrastructure in terms of both passengers and cargo in order to deal with the seasonality of demand in the tourism industry;
- to improve safety and quality of the service provided through enhancements in capacity;
- to improve general connectivity of physically isolated areas of Croatia i.e. the Dubrovnik area;
- to ensure adequate preparation for and ultimate compliance with EU Schengen requirements;
- economic sustainability of the infrastructure and sector;
- reduction in environmental impact of the sector in relation to noise and CO2 emissions.

SECTION 2: STRATEGY

2.1 Overall objective of the OP and contribution of the OP to the objectives of the NSRF

The overall objective of the NSRF is to support convergence of Croatia with other EU countries by accelerating economic growth and fostering employment.
In support to the achievement of this overall objective, three strategic objectives have been identified:

- Competitive economy based on market integration, institutional reforms and sustainable development,
- Improving environment for job creation and employability,
- Balanced regional development and improvement of living conditions.

The overall objective of the NSRF, together with its strategic objectives, defines the strategic focus of the investments planned in a broader development context, while four thematic priorities of the NSRF channel them in a more specific direction. Thematic priorities of the NSRF are:

- Development of modern transportation networks and increased accessibility of the regions,
- Improvement of environmental infrastructure and quality of related services,
- Higher competitiveness of SMEs and support to knowledge-based economy,
- Improvement of labour market efficiency, development of human capital and reinforcing social inclusion.

First thematic priority of the NSRF, development of modern transportation networks and increased accessibility of the regions, is the overall objective of OP Transport and will be addressed directly through the implementation of this OP. The results obtained from the OP implementation will also contribute directly to the achievement of NSRF strategic objectives. Through the creation of modern, safe and clean transport networks and by overcoming the deficits in international connectivity and national mobility and accessibility, the OP will support environmentally sustainable economic growth and development. Moreover, improving the transport infrastructure and facilities important for enhancement of economic activities and living conditions in the regions will be beneficial for reducing the existing socio-economic regional imbalances.

2.2 Specific objectives

The TOP will contribute to the overall objective by focusing on the following principle areas:

a) ensuring better integration of the Croatian transport networks within the European transport network by improving transport infrastructure in the railway and inland waterway sectors through the development of the transport networks on the TEN-T corridors but also improving regional connections. These actions will enable the development of the national economy through the provision of better connections with the rest of the EU;

b) encouraging a more balanced development of the transport networks by implementing actions which ensure a more equal ratio of investment regarding the road sector and other transport sectors, particularly the railway sector.

c) improving regional accessibility to TEN-T networks in other transport sectors such as air and road.

Strategy justification

There is an urgent need to ensure a more balanced development of the Croatian transport network which, until recently has been dominated by the road sector, and to upgrade the
sections of the transport networks located on the TEN-T corridors to accelerate Croatia’s integration within the EU and through this to stimulate the development of the national economy. Therefore the focus of attention is on the development of those parts of the rail and inland waterway networks which form part of the TEN-T corridors in Croatia. At the same time the rise of those two transport modes will support development of a more environment sustainable outlook of the transport sector as a whole. A small amount of investment in road and air transport modes is also foreseen where a contribution is made to regional accessibility and the connectivity of secondary and tertiary nodes to the TEN-T network.

There are two railway related TEN-T corridors in Croatia. The corridor X is important because of its east-west integration link in the region with a potential to capture significant parts of future regional traffic while the corridor Vb connects Croatian biggest sea port Rijeka with the economic centre of Croatia - Zagreb and the whole area of central Europe. The modernisation of these two routes will have a strategic impact on the modal shift, attractiveness of lines for the operators, attractiveness of ports and other connected economic areas, mobility and in general the national and regional economy.

The non TEN-T railway routes are also important, especially in suburban public transport, since the dominant part of traffic is actually taken by passenger and especially commuter rail traffic. Although the corridors have a head start and prime role in this financial period of the Structural funds, the need for starting the enhancement of the suburban railway routes is obvious. When talking about the modal switch in passenger transport this type of routes have the biggest potential and have direct influence on regional/local economy and the standard of life.

The above mentioned problems in rail transport sector cause its non-competitiveness because of lack of capacities and usage of obsolete technologies. In line with this the projects are aimed at double tracking and speed increase incorporating EU interoperability and safety standards.

Arguably the most important goal, with regard to absorption of EU funds is to prepare the sector for the next programming period with the robust set of prepared projects including both TEN-T and non TEN-T routes. Without this there will be no assurance of the fulfilment of specific objectives set in this OP.

Inland waterway sector in Croatia is practically completely set on the TEN-T corridor VII and is severely underdeveloped in comparison to other transport modes. As being predominantly located in Slavonia region it has a great potential for improving the economy of this agriculture oriented and underdeveloped region. The Sava river is the most important waterway because of its big potential. It is connecting wider Zagreb area with Danube waterway traffic. In this sense the priority is to upgrade the Sava navigability to make this waterway commercially feasible, interesting to international operators and in the end to make it truly competitive to other modes. With the rise of the inland waterway traffic the need for better traffic regulation and safety are needed and correspondingly the ports will have to be improved.

Whilst transport sectors other than railways and inland waterways were generally in better shape, more commercially viable and less familiar with EU funding regimes, and hence not originally included in the TOP, the increase in funding between IPA and Structural Funds was recognised as too significant for full absorption of funds by these two sectors alone. In addition, it was considered necessary to ensure full alignment with the evolving transport strategy for Croatia and in full preparedness for the 2014-2020 programming period.
The Croatian road network needs increased capacity and serviceability in order to ensure a fast and efficient flow of goods, services and people. The (re)construction of key pinch points in the state road network, of connections between the major networks and regional and local roads, and the improvement of links between the islands and the mainland should all be addressed.

Airport capacity in Dubrovnik alongside the region’s physical separation from the rest of the country (caused by Bosnia Herzegovina’s access corridor to the Adriatic sea) constrains tourism and economic growth. In this sense, the airport plays a fundamental role for long distance (international and national) accessibility especially during summer season. This issue will be even more relevant when Croatia joins the Schengen area, thus implying a higher level of controls at the border. Improving connections and accessibility with the rest of the EU will enable regional economic growth.

Reduction of the environmental impact of airport can be done by increased energy efficiency of infrastructure and operations, introduction of noise-related operating restrictions and by minimising waste and reducing noise, CO2 emissions and other pollutants but also by measures related to the protection of flora and fauna such as avoidance of disturbances of bird migration paths.

2.2.1 Coherence with national and EU policies

2.2.1.1 Coherence with national policies

Strategic Development Framework 2006-2013

The Strategic Development Framework 2006-2013 states that activities related to the transport sector are inter alia to be focused on the following:

1. increasing the integration and connection of the entire transport system - sea transport, seaports, the railways, the road infrastructure, waterway transport and river ports on the mainland in order to achieve synergic effects on economic development and competitiveness;

2. investments into the transport infrastructure need to be structured in a manner that will allow for a reduction in the mentioned imbalance between individual types of transport;

3. revival of waterways transport;

4. Improved passenger handling capacity and improvement of safety in general.

2010 Economic Recovery Programme

The 2010 Economic Recovery Programme for the Republic of Croatia is a document which lays out the strategic goals of the government of the Republic of Croatia to enable it to tackle the effects of the current global economic crisis. With regard to the section of the document entitled “Contribution of the State to the Revival of the Economy” the following activities are listed:

- Support to investment projects, with emphasis on “…….Infrastructure (railways; sea ports, inland waterways and airports; water supply)”;
“Financing of projects predominately with private capital and EU funds, and only in a small range through government budget and public enterprises”.

The first objective under this section is comprehensively covered by the areas of intervention envisaged in the TOP. The second objective is partly achieved through the co-financing rates envisaged in the projects to be implemented under the Operational programme. However, the use of private capital (e.g. through the use of Public Private Partnerships) is not envisaged in any of the actions planned under the TOP for this programming period.

**2010 Interim Transport Strategy**

In November 2010 the Ministry of the Sea, Transport and Infrastructure adopted the 2010 Interim Transport Strategy for the Republic of Croatia. The document is of a temporary nature and will be replaced by a new national Transport Development Strategy. The Interim Strategy document sets out the strategic priorities for the transport sector for the 2012-2013 periods. These are:

- To upgrade and harmonise the transport infrastructure (in accordance with EU requirements) on the sections of the TEN-T corridors located in Croatia;
- To upgrade the transport infrastructure on the national and regional networks, as well as their links to the TEN-T networks;
- To develop multi-modal transport systems.

Those priorities were defined in the context of belief that Croatia will become EU member state in 2012. Thus it was expected that there would be more significant EU funding available and also, more time for implementation.

**Transport Development Strategy of the Republic of Croatia**

The transport strategy was developed in 2014, and so impact on the TOP 2007-2013 has been fairly limited. Nevertheless with TOP modification in 2014, alignment with the emerging strategy was ensured. The six key objectives of the Transport Development Strategy for Croatia are:

1. Improvement of transport connectivity and coordination with neighbouring countries
2. Improvement of passengers’ long distance accessibility inside Croatia
3. Improvement of passenger regional connectivity in Croatia and the promotion of territorial cohesion
4. Improvement of passenger accessibility to and within the main urban agglomerations
5. Improvement of freight accessibility inside Croatia
6. Improvement of the Organizational and Operational setup of the Transport System to enhance efficiency and sustainability of the system.

The modification of the TOP responds to the objectives relating to connectivity with neighbouring countries, regional connectivity and territorial cohesion within Croatia and passenger and freight accessibility within the country.
SEETO

South East Europe Transport Observatory (SEETO) is regional transport organization established by the Memorandum of Understanding for the development of the Core Regional Transport Network (MoU) signed 11th June 2004 by the Governments of Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Montenegro and Serbia and the United Nations Mission in Kosovo and the European Commission. The aim of the SEETO is to promote cooperation on the development of the main and ancillary infrastructure on the multimodal South East Europe Core Regional Transport Network and to promote and enhance local capacity for the implementation of investment programmes, management and data collection and analysis on the Core Regional Transport Network.

SEETO Mission is to facilitate the programming and implementation of the MoU provisions foreseen to improve and modernize the Core Regional Transport Network for social and economic development. SEETO mandate also includes cooperation and exchange of the comprehensive information with the relevant international agencies and financial institutions active in the South East Europe region and with the relevant Secretariats of the Pan-European corridors, in order to achieve maximum compatibility between development strategies.

Through the SEETO Multi Annual Plans (MAP-s) the priority projects of the region are defined and are including activities on the TEN-T network as a part of SEETO Core Regional Transport Network. In the past MAP-s all major IPA corridor X projects were identified as priorities while in the last MAP 2012 Priority Project List there are modernisation and reconstruction of railway lines on corridors X and Vb and the inland waterway projects concerning the upgrade of Sava waterway and ports also identified within TOP.

In that way the MAP priorities and TOP priorities are highly coordinated and it is made sure that TOP is contributing to the development of the whole South-East Europe region.

2.2.1.2 Coherence with EU policies

Community Strategic Guidelines

The TOP is consistent in particular with two of the Community Guidelines:

GUIDELINE 4.1: Making Europe and its regions more attractive places to invest and work.

4.1.1. Expanding and improving transport infrastructure

This guideline develops the link between modern and secure infrastructure and the economic and social attractiveness of regions and cities; infrastructure investment will reinforce convergence across the EU and improve quality of life. According to this guideline the use of funds must be based on a number of principles.

First, objective criteria should be used to determine the level and nature of the infrastructure investment to be undertaken. For instance, potential rates of return should be measured by the level of economic development and the nature of economic activities of the regions concerned the prevailing density of infrastructures or the degree of congestion. When determining the social rates of return, due account must also be taken of environmental and social implications of prospective infrastructure projects.
Second, the principle of environmental sustainability should be respected to the greatest possible extent, in accordance with the White Paper. Shifts to more environmentally friendly modes of transport and the optimisation of the environmental and general performance of each mode of transport should be pursued.

Third, particular attention should be paid in the Convergence regions to modernising the railway system by carefully selecting the priority sections, ensuring their interoperability within the framework of the European Rail Transport Management System (ERTMS).

Fourth, investments in transport infrastructure should be accompanied by proper traffic management, with particular attention to safety, in accordance with national and Community standards. National or regional strategies should take into account the need to achieve a balanced (and clean) modal split that serves both economic and environmental needs. Strategies should include, for example, intelligent transport systems, multimodal platforms and, in particular, technology used for the ERTMS and SESAR (for a more uniform air traffic management system in Europe).

The above mentioned four principles outlined are addressed in the TOP as follows:

- The nature of the economic activities (and quality of transport infrastructure) in the regions concerned are specifically and clearly taken into consideration (i.e. the importance of revitalising inland waterway transport on the Sava river for the region of Pannonia; the economic dependence of the Dubrovnik area on tourism and the lack of capacity of Dubrovnik airport to deal with seasonal flows);

- Alternative transport modes to road transport are actively promoted in the TOP specifically through the development and modernization of railway transport network, whilst the environmental and general performance of different transport modes is a key focus;

- Great emphasis is placed in the TOP on the development of the railway network, in particular with regard to the improvement and modernization of the TEN-T railway corridors. All improvements to railways on TEN-T corridors automatically require the introduction of ERTMS and the provision of technical characteristics to ensure interoperability.

Based on the above-mentioned principles and in line with the listed guidelines for action, the TOP also focuses on secondary connectivity. Emphasis is placed upon ensuring that regions benefit from opportunities created by the major networks through the reduction of congestion and bottlenecks on the road network and ensuring adequate links between local, regional and national roads and the motorway network and other transport infrastructure. Attention is also placed on improving the connectivity of landlocked areas to the TEN-T network and promoting regional development. The guidelines emphasize that Structural Funds investment should focus on infrastructure that stimulates economic growth e.g. tourism; and that improves passenger safety.

**GUIDELINE 5: Taking account of the territorial dimension of cohesion policy**

This guideline refers to the ability of cohesion policy to adapt to the particular needs and characteristics of specific geographical challenges and opportunities. 3 of the 6 areas of activity listed under this guideline are covered in the TOP. These are:

**5.3. Cooperation**

TOP focuses on completing and extending the transport systems on the TEN-T network. This activity requires close cooperation with neighbouring countries due to the trans-
national nature of TEN-T corridors. For Croatia’s transport networks this is of particular relevance because the main inland waterways (Sava, Danube), for much of their length, form the border with Bosnia, Serbia and Hungary. It is also highly relevant for railway and road operations on the international corridors for compatibility and interoperability purposes. Cooperation across borders and EU regional cooperation is therefore an integral element of the TOP.

5.4. Cross-Border Cooperation

As indicated in the above item many of the activities to be carried out under the TOP require close cross-border cooperation in order for them to be physically completed as well as to achieve the required impact.

5.5. Transnational Cooperation

Many of the activities to be carried out under the TOP will clearly be of a transnational nature as they will require close cooperation at a national level in order for them to be physically completed, as well as to achieve the required impact. A good example of this is the proposed reconstruction and modernisation of the inland waterways in Croatia. For activities in this field to have the desired impact parallel or complimentary activities need to be carried out also on other sections of the European waterway network which may be partly, or entirely, within the boundaries of other countries i.e. Bosnia, Serbia.

Lisbon and Europe 2020 Strategies

The overall and specific objectives of the TOP will contribute to the achievement of the common political aims laid down in the Lisbon Strategy.

The overall political aims of the Lisbon strategy are:

- To establish an inclusive, dynamic and knowledge based economy;
- To produce accelerated and sustained economic growth;
- To restore full employment as the key objective of economic and social policy, and reduce unemployment to the levels already achieved by the best performing countries, and to modernise the social security systems.

The main objectives of the Lisbon Strategy are orientated to stimulate economic growth and the establishment of new jobs:

- Creation of better conditions for work in Europe;
- Encourage the development of knowledge and innovation in order to obtain economic growth in the EU;
- Better conditions for business in order to achieve the creation of new jobs.

In 2005 the European Commission published “The renewed Lisbon Strategy” to take account of the changes that had taken place in Europe since the original Lisbon Strategy was developed and to adjust European policy in the light of these changes. In relation to the transport sector the strategy states under the heading of “3.2.4. Expand and improve European infrastructure: The Single Market needs to be equipped with modern infrastructure to facilitate trade and mobility. Progress here has been disappointingly slow and this now needs to be addressed. A modern infrastructure is an important
competitiveness factor in many enterprise decisions, affecting the economic and social attractiveness of locations. It guarantees mobility of persons, goods and services throughout the Union. Also, infrastructure investments especially in the new Member States will encourage growth and lead to more convergence, in economic, social and environmental terms. Given the long term effects of infrastructure, decisions should significantly contribute to sustainability. Similarly, fair and efficient systems of infrastructures pricing will serve this objective.”

The aims of the Renewed Lisbon strategy are implicitly addressed in the TOP through the emphasis on upgrading the transport infrastructure particularly in the road, rail, air and inland waterway sectors.

In response to the serious economic crisis which made challenges even more pressing, in June 2010 the European Commission adopted a new EU’s growth strategy which sets out a vision for Europe’s social market economy for the coming decade - Europe 2020 Strategy. It rests on three priority areas: Smart growth, developing an economy based on knowledge and innovation; Sustainable growth, promoting a low-carbon, resource-efficient and competitive economy; and Inclusive growth, fostering a high-employment economy delivering social and territorial cohesion.

Progress towards these objectives will be measured against five interrelated and mutually reinforcing EU-level targets, which Member States will be asked to translate into national targets reflecting starting points:

- 75% of the population aged 20-64 should be employed;
- 3% of the EU’s GDP should be invested in R&D;
- The "20/20/20" climate/energy targets should be met. These involve greenhouse gas emissions 20% lower than 1990, 20% of energy from renewables and 20% increase in energy efficiency;
- The share of early school leavers should be under 10% and at least 40% of 30-34-year-olds completing third level education (or equivalent) should have a degree or diploma;
- 20 million less people should be at risk of poverty.

The Europe 2020 Strategy is addressed through this Operational Programme by aiming to create a more balanced modular split in transport, i.e. giving an accent to the development of the relatively less polluting modes like railways and inland waterways.

The Strategy of the European Union for Danube Region

The Strategy of the European Union for Danube Region (EUSDR) seeks to create synergies and coordination between existing policies and initiatives taking place across the Danube Region. It is not about funding, it is about closer cooperation.

EUSDR stimulated cooperation between member states and non-member states by pursuing regional cooperation, enhancing existing relations and strengthening the Danube economic.

Ministry of Maritime Affairs, Transport and Infrastructure is included in the activity of the EUSDR within the priority area 1 Connecting the Region: To improve mobility and multimodality (covering road, rail and air links as well as inland waterways);
1a) To improve mobility and intermodality - Inland waterways
1b) To improve mobility and intermodality - Rail, road and air

This priority Area is a part of pillar focuses on mobility, energy and culture/tourism issues, according to the Communication and Action Plan of the Strategy. The overall objective is to improve connectivity within the Danube Region and with the rest of Europe, in terms of infrastructures, systems and people. This can be done by improved coordination in infrastructure works, improved operation of transport and energy systems, exchanges of experience on clean energy, and promotion of Danube culture and tourism.

The main targets defined in the priority area 1:

- Increase the cargo transport on the river by 20% by 2020 compared to 2010;
- Remove existing navigability bottlenecks on the river so as to accommodate type VIb vessels all year round by 2015;
- Improved travel times for competitive railway passenger connections between major cities;
- Implementation of the 4 Rail Freight Corridors crossing the Danube Region as planned within 3 or 5 years;
- Development of efficient multimodal terminals at Danube river ports to connect inland waterways with rail and road transport by 2020.

The Projects proposed within this Pillar respond to the key problems/potential identified as follows:

- Navigability (waterways, ports, ships, crews)
- Road and railways (missing links, quality)
- Multimodality - lack of coherence but great potential

Communication from the Commission on regional policy contributing to sustainable growth in Europe 2020 COM(2011) 17

Given the current fiscal situation in the Union, and the substantial funds still available under the current Cohesion Policy 2007-2013 programming period, this Communication calls on Regional Policy stakeholders to act without delay, invest more in sustainable growth, and use funds more effectively. This Communication proposes a two-pillar approach to increase the contribution of Regional Policy to sustainable growth during the current programming period:

1) Investing more in sustainable growth: encouraging greater strategic focus in investments on sustainable growth with an emphasis on resource efficient and low carbon economy;

2) Investing better in sustainable growth: improving policy delivery mechanisms by reinforcing the application of sustainable development principles in the operational programmes.

Both pillars are addressed in the TOP with the concentration on the development of the comparatively more sustainable transport modes.
This Roadmap builds upon and complements the other initiatives under the Europe 2020 Strategy flagship initiative on "A Resource Efficient Europe", in particular the policy achievements towards a low carbon economy, and takes into account progress made on the 2005 Thematic Strategy on the Sustainable Use of Natural Resources and the EU's strategy on sustainable development.

The transport is here addressed in the form of the one of the three key sectors: Ensuring efficient mobility which says that a modern, resource efficient mobility system, serving both passengers and freight can contribute significantly to competitiveness and sustainability. TOP is in line with above by the concentration on the more energy efficient transport modes.

2.2.1.3 Coherence with EU Transport Policy


Current EU common transport policy puts emphasis on the following orientations of actions:

- **Shifting the balance between transport modes.** The imbalance between transport modes is leading to an uneven distribution of traffic, increasing congestion, particularly on the main trans-European transport corridors, as well as in towns and cities. This action is reflected in the TOP through its emphasis on increasing the share the railways in the transport of passengers and freight;

- **The elimination of bottlenecks on Community transport infrastructure and solving the financial puzzle of how to support infrastructure projects by creating new sources of financing (reinsurance and mutual financing by private investors, higher involvement of the Community budget, introducing the fine-tuning principles of public-private partnerships).** This action is reflected in the TOP through its emphasis on completing and upgrading the transport network, as well as improving the connections of the national and regional transport networks to the TEN-T network in Croatia;

- **Paying more attention to transport users (awareness of external costs, development of multi-modal passenger systems, developing a charter of rights and responsibilities for transport users, more attractive forms of public transport in municipalities).** This action is addressed in the TOP with its emphasis on the development of regional and suburban railway network;

- **Meeting global challenges in European transport** (have a common EU position on the Forum of international transport organisations, common policy principles for maritime shipping and the development of global “intelligent networks” within the EU’s Galileo programme).

As can be seen the following guidelines have been taken into account in the planning of transport projects financed by the ERDF and the Cohesion Fund:
- The creation of trans-European transport network (TEN-T);
- The transfer of freight from roads to railways and maritime transport;
- The development of modern public transport with view to reducing the use of private cars and CO₂ emissions;
- The elimination of bottlenecks and improving secondary connectivity to the major networks;
- Investment in airport infrastructure capacity in order to maintain market position of passenger and freight transport and reinforce safety is reflected in the TOP in the inclusion of the Dubrovnik airport major project.

The transport policy should be linked to the above mentioned objectives, economic policy (due to financial resources required for implementation) and with spatial policy. These orientations mean that projects proposed for financing by the Cohesion Fund and ERDF should meet the following criteria:

- **Constitute elements of the future trans-European transport network.** This criteria is addressed in all four transport infrastructure priority axes;

- **Create opportunities for increased traffic volumes on railways and for maritime transport.** This criterion is addressed through the emphasis in the TOP of developing the railway network in Croatia. These actions are provided for in Priority Axis 1: Modernisation of railway infrastructure and Project preparation in transport sector for the next Financial perspective;

- **Facilitate improvement of transport services in urban areas by supporting the development of public transport.** This criterion is addressed in Priority Axis 1: Modernisation of railway infrastructure and Project preparation in transport sector through preparation of studies and other documentation for regional transport networks in Croatia;

- **Use private funds for implementation as much as it is possible.** This criterion is addressed in the TOP through the encouragement of the use of IFIs to fund projects wherever possible.
### Table illustrating the coherence of the TOP with national and EU policies

<table>
<thead>
<tr>
<th>Priority Axis</th>
<th>EU Policy Framework</th>
<th>National Policy Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Priority to TEN-T projects</td>
<td>NSRF</td>
</tr>
<tr>
<td>Priority Axis 1: Modernisation of railway infrastructure and Project preparation in transport sector (to be financed by the ERDF)</td>
<td>Investment in secondary connections</td>
<td>SEETO MAP-s</td>
</tr>
<tr>
<td></td>
<td>Support for railway infrastructure</td>
<td>Economic Recovery Programme</td>
</tr>
<tr>
<td></td>
<td>Support for environmentally sustainable transport networks</td>
<td>Strategic Development Framework 2006-2013</td>
</tr>
<tr>
<td></td>
<td>Improving connectivity to TEN-T networks</td>
<td>Strategic Coherence Framework 2007-2013</td>
</tr>
<tr>
<td></td>
<td>Lowering greenhouse gas emissions</td>
<td>Transport Development Strategy 2014</td>
</tr>
<tr>
<td>Priority Axis 3: Technical Assistance (to be financed by ERDF)</td>
<td></td>
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<td>Priority Axis 4: Road and airport development (to be financed by ERDF)</td>
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**Notes:**
- **Priority Axis 1:** Modernisation of railway infrastructure and Project preparation in transport sector (to be financed by the ERDF)
- **Priority Axis 2:** Upgrading Croatia’s inland waterway system (to be financed by the ERDF)
- **Priority Axis 3:** Technical Assistance (to be financed by ERDF)
- **Priority Axis 4:** Road and airport development (to be financed by ERDF)
2.3 Priority axes

Four priority axes are implemented under the 2007-2013 TOP and follow the specific objectives set out in section 2.2 of this document and are connected to pre-accession activities since this TOP has an IPA background:

**Priority axis 1: Modernisation of railway infrastructure and Project preparation in transport sector (co-financed by ERDF)**

The axis aims at upgrading Croatia’s railway network on TEN-T corridors, the regional and suburban railway network and elaboration of background studies and preparation of infrastructure projects for the next programming period in all transport sectors except inland waterway sector.

It continues activities started under the ISPA and IPA pre-accession programmes. Activities started under IPA are to be finished within this TOP.

Actions under this priority axis will focus on upgrading sections of TEN-T corridors Vb and X located within Croatia and in a smaller degree the upgrading of regional/suburban railway network.

**Priority axis 2: Upgrading Croatia’s inland waterway system (co-financed by ERDF)**

The axis aims at Upgrading Croatia’s inland waterway system by establishing conditions for safe and reliable inland navigation and ensuring that the waterways meet minimal navigation requirements and improvement of ports.

The main task within this priority axis is the preparation and development of future projects for implementation in the next programming periods that contribute to the objective above. Activities started under IPA are to be finished within this TOP.

**Priority axis 3: Technical Assistance (co-financed by ERDF)**

The axis aims to:
- support for the management of the OP;
- strengthen the capacity of the Managing Authority, other bodies involved in implementing the TOP, as well as potential beneficiaries;
- prepare transport strategic documents.

Actions under this Priority Axis are designed to provide the necessary level of assistance for the implementation of Priority Axes and operations outlined in the TOP. Also it will include the preparation of the Transport Development Strategy with the related Traffic Model as long and medium term investment programming in the transport sector in Croatia.

**Priority Axis 4: Road and airport development (co-financed by ERDF)**

This axis aims at transport investments in the road and air sectors where a significant contribution can be made to regional accessibility and connectivity; international mobility and travel into and out of Croatia, and finally projects of regional significance that have a
positive impact on economic development and sustainability and protection of the Croatian environment, landscape and heritage.

**Indicative breakdown by category of intervention - earmarking**


### 2.4 Ex ante evaluation

The Evaluation has examined the TOP draft version from April 2012,

The following methodology informed the development of this Ex-Ante Evaluation Report:

- Desk-based review of background literature, Programme texts, other documentation, including policy documents (Appendix C outlines the main documents reviewed);
- Data analysis of Programme performance indicators, along with wider labour market and socioeconomic data;
- Strategic consultations with each of the key stakeholders and other members of the Evaluation working group. Consultations were undertaken with officials from the Ministry of Maritime Affairs, Transport and Infrastructure, Ministry of Regional Development and EU Funds and other relevant stakeholders.

The main conclusions of this Evaluation are presented below:

(1) The April 2012 draft of the Transport Operational Programme 2007-2013 may be qualified as a document that meets the EU standards.

(2) The strategy and interventions are coherent with EU and national policies, including complementarity with the other Operational Programmes.

(3) The strategy is translated into a proposed set of Priority Axes which will tackle the weaknesses of the Croatian transportation sector with respect to the decision of covering only the sub-sectors that are already supported under the IPA TOP.

(4) The monitoring indicator system and indicators need more explanation and overall improvements.

(5) The future Programme implementation bodies already take actions that should lead to the timely preparation of necessary Description of the System and start of the Compliance Assessment.

On the basis of the above conclusions, the Evaluation Team proposed the following recommendations:

(1) Regarding the socio-economic analysis: the analytic chapter (especially the statistics) and the status of IPA projects needs to be updated to be able to reflect current status and future trends.
(2) Regarding the SWOT analysis: there is a need to incorporate into the SWOT analysis outputs from the respective twinning exercises undergoing in year 2012, parallel to this ex-ante evaluation.

(3) Regarding the expected results and impact: there is a need to realistically estimate the outcomes, results and impacts of SF TOP 2007-2013.

(4) Regarding the organizational structures preparation: on-going preparatory activities leading to the Compliance Assessment needs special attention to meet necessary criteria on time and not to postpone the SF OPs implementation.

(5) Regarding the future implementation: as all transportation sectors will be covered in the future, not only railways, inland waterways and technical assistance, also the sustainable capacities in the other sub-sectors should be built as a part of SF TOP using the technical assistance. Therefore, a more integrated strategy is required to take into consideration the needs and concerns of beneficiaries and stakeholders from all transportation sub-sectors.

The recommendations were addressed on the following way:

1) Data is updated.

2) SWOT analysis was reviewed in light of the programming exercise supported by twinners.

3) The Indicators and their targets were updated in line with new projects added and more clearly explained. The impact indicators are not introduced due to very limited physical and time scope of the OP that will not result in significant impacts. Only with conclusion of complete corridors and with greater time lapse there will be visible change in the way the transport sector influences overall development.

4) Structure preparation is recognised as a crucial element in funds usage and the necessary steps were taken.

5) The new Transport Development Strategy is being developed since early 2012 and is aimed to be ready for the next programming period. Also, it is envisaged in the Priority axis 1 to support project preparation for additional transport subsectors.

2.5 Strategic Environmental Assessment

According to the Croatian legislation concerning the environmental protection, which has been harmonized with the EU legislation, i.e. Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, transposed into Croatian legislation in the Environmental Protection Act (OG No 110/07) that was valid at the time of the first version of the Operational Programme traffic 2007th-2013th), Regulation on strategic environmental assessment of plans and programs (OG No 64/08), Ordinance on the committee for strategic assessment (OG No 70/08) and Regulation on information and participation of the public and interested public in issues on environmental protection (OG No 64/08), the SEA is mandatory for the Transport Operational Programme 2007-2013.

The Decision on initiating the strategic assessment of the OP adopted by the Ministry of Sea, Transport and Infrastructure on 13 May 2010 (CLASS: 303-03/10-01/200; REF.NUMBER: 530-13-10-1) as well as Decision on the content of the strategic impact study on 4 October 2010 (CLASS: 303-03/09-01/356; REF.NUMBER: 530-13-10-78).

In determining the scope of strategic impact study, the following bodies were consulted:
- Ministries responsible for health; culture; physical planning; environment and nature, regional development, forestry and water management;
- All regional self-government units (counties and City of Zagreb).

In accordance with public procurement procedure, the Ministry responsible for transport selected authorised expert legal entity for the preparation of the strategic impact study for the OP. Selected authorised expert legal entity was provided with the Decision on the content of the strategic impact study.

The Advisory Expert Committee for carrying out the SEA was appointed on 4 October 2010 by the Decision issued by the Ministry of Sea, Transport and Infrastructure (CLASS: 303-03/09-01/356; REF.NUMBER: 530-13-11-99).

The Advisory Expert Committee worked in three rounds of sessions:

- Following the submission of draft of the strategic impact study, the Advisory Expert Committee met on 3 November 2011. The completeness of the Study and expert aspects of the strategic impact study with regard to the established content of the strategic study and the draft proposal of OP were evaluated by the Committee, which concluded that strategic impact study has certain shortfalls; however, this is not an obstacle to determine completeness and expert soundness of the study. The Study should be reviewed and supplemented, as suggested by the Committee (update study according to the new version of the TOP; definition of goals and data corrections were suggested);

- Advisory Expert Committee held its second session on 22 February 2012. Members of the Committee asked for further upgrading of the Study. The scope of the OP has been reduced due to the short programming period of six months. It was emphasised that the reduced scope of the OP does not affect findings of the Study;

- The third session was held on 13 March 2013. Advisory Expert Committee accepted the strategic impact study. In respect of narrowed scope of the OP, the Advisory Expert Committee concluded that the reduced scope of the OP does not affect findings of the Study for respective transport sectors and planned interventions within those sectors. The Advisory Expert Committee has issued an opinion containing environmental protection measures and environmental monitoring plan related to the planned interventions under the TOP.

The Ministry of Maritime Affairs, Transport and Infrastructure (MMATI) issued on 14 May 2012 the Decision on launching public debate procedure on Strategic Study on environmental impact of the draft Transport Operational Programme (CLASS: 303-03/09-01/356; REF.NUMBER: 530-13-12-105). The launch of the procedure was publicised in daily newspaper “Jutarnji list” (published on 28 May 2012) and on the MMATI web page (http://www.mppi.hr/default.aspx?id=6964), published also on 28 May 2012. The Public debate procedure lasted from 1 June - 30 June 2012. Non-technical summary of the Strategic Study and entire draft TOP (in Croatian language) were made public on MMATI’s web page. Hard copies of documents were made available to the public on MMATI’s premises each working day during the procedure. The public was invited to submit its written comments and opinion to the MMATI’s postal address. In addition, Strategic Study and draft TOP were submitted via regular mail to all counties and the City of Zagreb with the invitation to provide opinion and comments on both documents. Public presentation of
the Strategic Study and draft TOP was held on 15 June 2012 on the MMATI premises. Written comments were received from 13 counties and the City of Zagreb, Agency for Inland Waterways from Vukovar, Port Authority Vukovar, and Port Authority Osijek. All accepted comments and suggestions were included in the SEA while the others were rejected with the elaborate explanations.

In accordance with Regulation on information and participation of the public and interested public in issues on environmental protection (OG No 64/08), all relevant information published on the web page of the Ministry.

For the revised version of the TOP (version 2.0), a new SEA was conducted Environmental impact of new priority axes 4 was assess. The SEA for the revised OPP was conducted according to the Environmental Protection Act (Official Gazette no. 80/13 and 153/13). MMATI on 21 November 2014 brought the “Decision to initiate SEA for TOP” (CLASS: 340-03/14-04/43; REF.NUMBER: 530-08-2-3-2-14-4) and the “Decision on the content of the Strategic Impact Study for the TOP 2007-2013 4, (CLASS: 340-03/14-04/43; REF.NUMBER: 530-08-2-3-2-15-20, October 2010).

In accordance with the procedure of public procurement, the Ministry responsible for transport chosen authorized Environmental expert for preparation of the Strategic impact study for TOP. After signing the contract “The decision on the content Strategic” was given to authorized Environmental expert.

SEA committee was appointed on 28 January 2015 by MMATI Decision (CLASS: 340-03/14-04/43; REF.NUMBER: 530-08-2-3-2-15-21).

SEA committee worked through two meetings and at the second meeting they adopted the Strategic Impact Study.

The MMATI brought “The decision to initiate the public consultation process on Strategic environmental impact study of the draft of the TOP” (CLASS: 340-03/14-04/43; REF.NUMBER: 530-08-2-3-2-15-42) which was published on 18 May 2015 in the newspaper “Jutarnji List” and on the website of MMATI. The process of public discussion lasted from 25 May to 26 June 2015. Strategic Impact study and Non-technical summary of the Strategic Impact Study and draft TOP was made publicly available on the website of MMATI. Printed copies of the documents were available to the public in the premises of the MMATI during the process. The public was invited to submit their written comments and opinions to the MMATI mailing address. Furthermore, Strategic Impact Study and draft TOP were sent by post to bodies designated by Special regulation, with the intent to obtain opinions and comments on both documents. Public exposure was organized on 27 May 2015 in MMATI premises. All remarks and proposals that were received included in the Strategic Impact Study or were rejected by the explanations. In accordance with the Regulation on information and participation of the public and public concerned in environmental protection (Official Gazette No 64/08), all relevant information are published on the website of the MMATI.

For interventions included to revised TOP (projects covered by Priority Axis 4), previously were implemented procedures of Environmental impact assessment (EIA), or they are in progress (Motorway Popovec-Marija Bistrica-Zabok, section Kašina-Zlatar Bistrica). The Strategic Environmental Impact Study describes the possible impacts, and given the appropriate mitigation measures that are in line with those established for each project, but taking into account the new regulations and obligations with respect to certain operations are carried out prior to their adoption.
Strategic study were not considered variants of particular interventions, because they were considered and evaluated through implemented procedures of EIA at the project level.

In Croatia, mechanisms for monitoring the environment through actions of EIA and issuing water rights acts for certain procedures and sequence of the above, this Strategic study does not propose the establishment of a special environmental monitoring program.

2.6 Partnership process

One of the key principles of the preparation of the Operational Programme is the partnership principle, as defined in Council Regulation (EC) No 1083/2006 of 11 July 2006 (the General Regulation). According to the regulation, the partnership principle has to be applied in the preparation, implementation, monitoring and evaluation of operational programmes.

Partnership principle has been introduced through the establishment of the Drafting Group for the Transport Operational Programme. The members of the TOP Drafting Group were identified from among the main social partners and government institutions which share certain responsibilities in relevant sectors. Upon need, the MA organised particular consultation sessions and/or bilateral meetings with the Drafting Group members and other relevant stakeholders in order to assure their active involvement in the TOP preparation. Also, each of the TOP Drafting Group members carried out their own “independent” consultation with relevant partners in order to ensure synergies created through combination of top-down and bottom-up approach.

Public consultations on the National Strategic Reference Framework organized by then CODEF (now Ministry of Regional Development and EU Funds) took place on 18 June 2010. The list of invited stakeholders included regional and local government representatives as well as representatives of public and scientific institutions. On this occasion NSRF and OPs as their constituent parts were presented, including TOP with its strategic objective, goals, priority axes, key areas of operation and potential beneficiaries. During the sectoral discussion on TOP, types of operations and projects which were in a preparatory phase were presented. Stakeholders had the opportunity to find out which are the possibilities for including projects to the project pipeline, which are the preconditions for successful nomination of projects and whether there are possibilities to introduce additional priorities to the OP. Organization of the next round of consultations for TOP was announced for the time when the programme is in a more advanced stage.

The members of the OP Drafting Group are presented in Annex 1.

The second partnership consultations were held on 20 March 2012 and were conducted by the designated future MA for this OP. At the consultations participated representatives of counties, local government, regional development agencies, beneficiaries (HŽ Infrastruktura d.o.o. and Port Authorities), Ministry of culture, Ministry of Construction and Physical Planning, syndicates and the Ministry of regional development and EU funds as the Coordinating body.

The OP was presented with the envisaged projects and the rationale of continuing IPA priorities and measures was explained. The emphasis was in fact given to the preparations for the next programming period 2014-2020.
During the discussion it was stressed the importance of administrative capacities development of the funds managing structures and also of the potential beneficiaries. The risk of basing most of the OP allocation on one single project Dugo Selo-Križevci railway line was recognised. The representatives of participating institutions and local government showed significant interest for the future possibilities in EU fund support of projects. They presented some of their projects and ideas for projects. Also, the way of nominating and selection of projects was discussed and the problem of not having coherent approach towards the urban transport subsector was recognised. The Environment NGO representative was interested in the dynamics of the development of the new Transport Development Strategy and stressed the imperative of having in mind the EU environment regulative and procedures while preparing the strategy and projects. The need for a strategic approach and good planning in view of the transport development was underlined by the Croatian railways syndicate. The Zagreb city and the Ministry of culture representatives expressed concern about the often case of discrepancy between the projects plans and the existing spatial plans.

2.7 Horizontal issues

Among the horizontal EU policies the Gender and Equal Opportunities, Sustainable development and Information technologies are recognised as the most relevant for the TOP.

2.7.1 Gender and Equal Opportunities

Support for fundamental rights, non-discrimination and equal opportunities, form some of the key principles applied in the EU. The equal opportunity principle is one of the pillars of European Employment Strategy and the European Framework Strategy on Non-discrimination and Equal Opportunity, from which the horizontal priority is derived. Equal opportunities mean the avoidance of discrimination in relation to gender, race, ethnic origin, religion, disability, age or sexual orientation.

The accessibility of transport infrastructure is especially relevant in the TOP context. Having in mind the two supported sectors, the railways are more important in that sense because it plays a big role in passenger transport while the inland waters traffic is practically orientated on the cargo only. The current situation on railways is a grim one. According to the “Study on the accessibility of railway infrastructure along Pan-European Corridor X for passengers with disabilities and reduced mobility” done under ISPA programme all stations and halts along the way have serious deficiencies for the accessibility of mobility challenged people. Inadequacies common to almost all sites were found in following categories: width of platforms, route identification, toilets, ramps with excessive slope, height of platforms, pedestrian level crossings and end of platform markings. Although there are no similar surveys done for the rest of the railway network in Croatia it is safe to say that the situation is the same as on the corridor X.

The issue is dealt with by assuring through the process of projects’ programming and application that all projects dealing with the physical station improvement have to include accessibility provisions in line with the Regulation (EC) No 1371/2007 of the European Parliament and of the Council on rail passengers’ rights and obligations Articles 10 and 11. This applies also to the projects in the other transport sectors that are prepared within TOP.
Emphasis is also placed on the principal of gender equality (equal opportunities for men and women) belonging to the key objectives of the European Community and so to the key objectives of structural funds. According to Article 2 of the Amsterdam Treaty, the Community has to ensure the equal position of men and women in society and according to Art. 3, there is the duty to remove inequalities and promote gender equality in all activities through the method of gender mainstreaming. In the context of EU funds, this means the need to look at the contribution to equal opportunities and gender equality when carrying out the programming, monitoring and evaluation of projects.

For the purpose of ensuring an effective application of the principle of equal opportunities, the Republic of Croatia has transposed the *acquis communautaire* in its national labour and anti-discrimination legislation. Non-discriminatory provisions are also introduced in that legislation. Gender Equality Law is in force in Croatia since July 2003. It defines and regulates protection from discrimination on the grounds of gender, as well as equal opportunity mechanisms. The Gender Equality Ombudsperson monitors the implementation of the Gender Equality Law. In July 2011, the Croatian Parliament adopted the National Policy for Gender Equality for the period 2011-2015. The National Policy for Gender Equality 2011-2015 builds on the previous National Policy 2006-2010 by redefining the national priorities, the modes of implementation and the undertaking of special measures in line with the altered social and political circumstances, the progress achieved, and the further challenges in establishing true gender equality. It binds the Republic of Croatia to integrate the gender dimension in all policy areas by implementing special measures with regard to the following seven key fields of action: 1) the promotion of the human rights of women and gender equality; 2) the creation of equal opportunities in the labour market; 3) the improvement of gender sensitive education; 4) the balanced participation of women and men in political and public decision-making processes; 5) the elimination of all forms of violence against women; 6) the promotion of international cooperation and gender equality outside Croatia; and 7) the further strengthening of institutional mechanisms and implementation methods.

The principle of equal opportunities is integrated in all OPs including the TOP and it encompasses all measures and activities during the period of planning, implementation, monitoring and evaluation that directly influence or contribute to the promotion of equality between women and men, social inclusion and diminishing any form of discrimination. TOP supports the establishment of the equality of opportunities for the access to the transport infrastructure as one of the important factor influencing the living conditions and living standard of inhabitants.

### 2.7.2 Sustainable development

The environmental protection policy of the EU and the Sustainable development strategy (setting overall objectives in terms of climate changes and clean energy, sustainable transport, sustainable production and consumption, addressing public health threats, better management of natural resources, social inclusion, demography and migration and fighting global poverty) were used as a basis in the process of the identification of the goals of the TOP.

The national environmental policy reflects the EC principle for the protection and improvement of the environment, protection of human health, including the: “the polluter pays”, “public’s’ right to know” and “preventive action” principles.

The requirements of Directive 2001/42/EC on the assessment of the effect of certain plans and programmes on the environment were transposed into Croatian legislation in the
Environmental Protection Act (OG No 80/13), Regulation on strategic environmental assessment of plans and programs (OG No 64/08), Ordinance on the committee for strategic assessment (OG No 70/08) and Regulation on information and participation of the public and public concerned in environmental matters (OG No 64/08).

The Regulation on the strategic environmental assessment of plans and programmes (OG No 64/08) came into force on 12th June 2008 and the Ordinance on the committee for strategic assessment (OG No 70/08) entered into force on 26th of June 2008.

Generally, the development of the transport sector has negative impacts on the environment. One of the greatest challenges for all Member States of the EU is to find solutions to reduce the effects of traffic growth, undesirable modal splits and to ensure sustainable infrastructure construction. As EU Member State, Croatia was obliged to harmonise its policy with respect to transport and the environment with that of the European Union, contributing in this way for solving of the above-mentioned problems.

The key measures for solving the environmental problems, caused by transport activities, include: “Ensuring the importance of environmental considerations in major transport infrastructure planning”.


In accordance with the provisions of European and national environmental legislations, the TOP is subject to a Strategic Environmental Assessment (SEA) as explained in paragraph 2.5.

The provisions of Directive 79/409/EC and 92/43/EEC concerning Natura 2000 will be strictly followed. The results received by the relevant assessments in compliance with Art. 6 of Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora should be taken into consideration as one of the criteria for the selection of projects based on the requirements for measures under the Decision of the Minister for Environmental Protection, Physical Planning and Construction for approval of the TOP / Environmental assessment statement.

Considering that the transport sector is a principal noise polluter, all the requirements regarding the environmental protection, inclusive of noise pollution, and the respective measures for the reduction of environmental pollution when implementing infrastructure projects financed from the TOP shall be fully respected according to national legislation and EU standards.

Also the concentration of the TOP support to the two relatively environmentally friendly transport modes is significantly influenced by this horizontal imperative.

2.7.3 Information technologies

The objective of this horizontal priority is to support more efficient and quality based implementation of NSRF priorities through effective information-communication technology (ICT) implementation and use.

In the TOP context the ERTMS (“European Rail Traffic Management System”) is especially significant. It is a major industrial project being implemented by Europe, a project which will serve to make rail transport safer and more competitive. One component of ERTMS,
the European Train Control System (ETCS), guarantees a common standard that enables trains to cross national borders and enhances safety. On 22 July 2009 the Commission adopted a European Deployment Plan for ERTMS which provides for the progressive deployment of ERTMS along the main European rail routes. This will reduce running costs and improve the system's efficiency on long cross-border distances. As stated bellow in Section 3 Priority Axis 1 the introduction of ERTMS ETCS level 1 is envisaged as an eligible action and is included in projects where feasible and in coordination with bordering states.

All infrastructure projects prepared and /or implemented under TOP provide for modern ICT systems in traffic control and safety in order to be sustainable and compatible with EU standards.

2.7.4 Climate change and disaster resilience

The impacts of climate change are becoming increasingly evident across Europe. Building Capacity to cope with the inevitable impacts of climate change is necessary across key EU policy fields, and has a special importance for expenditure programmes, such as those financed by Cohesion Policy.

The disaster risk resilience, prevention and management will be promoted in the preparation and implementation of the programmes. Due consideration will also be given to the resilience of infrastructure to natural and man-made disasters in compliance with any requirement which may be set out in relevant Union legislation.

The overall goal is to create the conditions for project beneficiaries to prepare proposals where climate change adaptation is taken into consideration. While project implementation is mainly carried out by project beneficiaries, solid consideration of climate change adaptation at the programme and project preparation stages can set the stage for effective outcome. Thereby it is also necessary for Managing Authority to monitor project implementation. This will be done by providing technical support and advice to project beneficiaries and by on-going monitoring of projects during and after implementation with support from environmental partners/adaptation experts.

SECTION 3: PRIORITY AXES

The following 4 priority axes are implemented as part of the Transport Operational Programme 2007-2013:

Priority Axis 1: Modernisation of railway infrastructure and Project preparation in transport sector (ERDF)
Priority Axis 2: Upgrading Croatia’s inland waterway system (ERDF)
Priority Axis 3: Technical Assistance (ERDF)
Priority Axis 4: Road and airport development (ERDF)

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5 See Technical guidance on integrating climate change adaptation in programmes and investments of Cohesion Policy COM(2013)135
3.1 Priority Axis 1 - Modernisation of railway infrastructure and Project preparation in transport sector (co-financed by ERDF)

3.1.1 Specific objectives

The aim of this Priority Axis is to firstly gradually develop and upgrade Croatia’s TEN-T rail transport network in order to connect the country more comprehensively and efficiently with the European transport networks whilst at the same time harmonising technical and operability standards with those of the European Union. Secondly, it is to start the upgrade of the regional and suburban railway network also harmonised with EU standards. Finally, it is to ensure the preparation of the projects in the all transport sectors, except inland waterway sector for the next programming period.

The intervention is needed to ensure the rail network can engage successfully in inter-regional and intra-regional corridor competition and is able to capture significant parts of future regional traffic potential. Moreover, increasing the railways’ market share in international goods and passenger traffic on TEN Corridor X and Vb is a pre-requisite for rendering line investments and railway operations financially feasible, thereby making the railway system commercially attractive for private operators.

3.1.2 Expected impacts

- Greater integration of Croatia’s transport networks on the TEN-T corridors with those of the EU;
- Increased ability for interoperability within the Croatian rail network;
- Creating a network of efficient, flexible and interconnected transport systems which will encourage and enable greater trade with the European Union and other markets;
- The creation of a more balanced transportation system within the country;
- Improving the connections between the regional and national transport networks;
- Encouraging the use of less polluting transport means;
- A significant number of Transport infrastructure projects ready for implementation in the next programming period.

3.1.3 Indicative type of operations envisaged for funding

Operations under this priority axis cover 2 specific groups of activities:

1) The priority axis will support operations aiming at upgrade and modernisation of the lines and improving safety and efficiency on TEN-T corridors, their connections and regional/suburban lines.

The operations envisaged for implementation in this area are selected on the basis of the current technological quality of separate line sections end nodes, preparedness of projects and their fitting into TOP time and financial frame. Activities are carried out in three closely connected areas:

a) Line upgrading and modernization on TEN-T corridors X and Vb. This implies:

- Doubletracking;
- Increasing speed to 160 km/h and axle load to 225 kN;
- Installing ERTMS ETCS level 1 and centralised traffic control equipment;
- Installing and upgrading telecommunications, power supply, drainage system and automatic barrier level crossings;
- Station and halts, construction and modernisation.

b) Improvement of the safety and efficiency of railway operations by improving Zagreb railway node. This implies:
- New Signalling equipment;
- Substitution of telecommunication equipment;
- Station track reconstruction;
- Adaptation/adjustment of signalling building.

c) New lines construction in the regional/suburban segment connecting city of Zagreb with surrounding counties. This implies:
- Construction of complete new lines shortening current passenger travel time and providing new lines to towns without railway connections;
- New station and halts construction.

At one hand due to a shortage of mature projects for immediate implementation in the railway sector and in order to complete the modernization of whole network in Croatia significant resources are allocated to the preparation of a pipeline of railway projects in line with three above stated areas for future implementation.

2) Elaboration of background studies and preparation of transport infrastructure projects for the next programming period.

This technical assistance is needed as a basis for the preparation of future projects. Indicative activities under this key area of operations include the elaboration of designs, studies, concepts, analyses, methodologies and reports, identification of potential projects and project pipeline preparation in all transport sectors except inland waterway sector for the next programming period.

3.1.4 Indicative list of beneficiaries

The beneficiaries are HŽ Infrastruktura d.o.o. and bodies responsible for investments in transport infrastructure in other sectors e.g. Hrvatske ceste d.o.o., Hrvatske autoceste d.o.o., cities, port authorities, etc.

3.1.5 Quantified targets and indicators

<table>
<thead>
<tr>
<th>Definition</th>
<th>Type</th>
<th>Measurement unit</th>
<th>Baseline value</th>
<th>Baseline date</th>
<th>Frequency of reviewing</th>
<th>Final Target (by 2016)</th>
<th>Data source</th>
</tr>
</thead>
</table>

67
### 3.1.6 Indicative list of major projects

An indicative list of major projects is presented in Annex 5.

### 3.1.7 Flexibility rule ESF/ERDF

No activities are envisaged to be financed using the Flexibility rule ESF/ERDF.

### 3.2 Priority Axis 2 - Upgrading Croatia’s inland waterway system (co-financed by ERDF)

#### 3.2.1 Specific objectives

The objective of this priority is to improve and rehabilitate the Croatian inland waterway system, making it more attractive and competitive in comparison with other modes of transport.

The aim is to rehabilitate the Sava river waterway with a view to achieving category IV navigational status, including alignment with the EU River Information System’s (RIS) and with the port system in the Republic of Croatia. This axis will comply with Directive 2005/44/EC which aims at the build-up of a European data exchange platform for easy and up-to-date transmission of traffic information (such as fairway conditions etc) from river
Authorities to operators, and will improve the inter-phasing of the waterway sub-sector with other modes of transport.

Croatian river ports (four international ports - Sisak, Slavonski Brod, Osijek and Vukovar) need qualitative and technological modernisation in order to satisfy the existing and expected transport demand. Along with the modernisation of basic port infrastructure, the system of safety and surveillance in the port areas should also be enhanced. Ports need to connect with main road and rail corridors in order to achieve better integration with the economic hinterland and to create preconditions for the development of inter-modal transport.

3.2.2 Expected impacts

- Improvements to the navigability and safety of inland waterways
- A pipeline of mature projects for future implementation.

3.2.3 Indicative type of operations envisaged for funding

Due to the lack of ready projects the priority is given to pipeline preparation that is to result with a set of projects ready for the next programming period. Projects will be orientated on following issues:

- improving the traffic control system and safety of the Croatian inland waterway network with the implementation of Sava river information system (RIS);
- preparing of the project with the aim of upgrading the class of the Sava river international waterway which is currently at a lower class than that that required;
- preparing of projects with the aim of modernizing and reconstructing the inland waterway port infrastructure in ports Vukovar, Osijek, Slavonski Brod and Sisak.

3.2.4 Indicative list of beneficiaries

The potential beneficiaries of the operations within this priority axis will be bodies responsible for the management of the inland waterways and ports.

3.2.5 Quantified targets and indicators

<table>
<thead>
<tr>
<th>No.</th>
<th>Definition</th>
<th>Type</th>
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<th>Baseline date</th>
<th>Frequency of reviewing</th>
<th>Final target (by 2016)</th>
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<td>Output</td>
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<td>Biannually</td>
<td>5</td>
<td>Final/progress report</td>
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<tr>
<td>2</td>
<td>Km of monitored inland waterway network**</td>
<td>Output</td>
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<td>151.5***</td>
<td>2007</td>
<td>After project finalisation</td>
<td>534.5***</td>
<td>Final/progress report</td>
</tr>
</tbody>
</table>

*ready for application to the MA and EC and ready for tendering or prepared/revised feasibility study.
**refers to inland waterway network on Danube, Drava and Sava
***kilometres of waterways currently covered by the RIS on the Danube and Drava
****kilometres of waterways covered by the RIS on the Danube, Drava and Sava (goal of introducing the RIS on the Sava river by 2016)

3.2.6 Indicative list of major projects
No major projects envisaged.

3.2.7 Flexibility rule ESF/ERDF
No activities are envisaged to be financed using the Flexibility rule ESF/ERDF.

3.3 Priority Axis 3 - Technical Assistance (co-financed by ERDF)

3.3.1 Specific objectives
The main objective is to ensure the full, efficient and effective use of the funds allocated to the Transport Operational Programme in accordance with the relevant rules and procedures.
In general it implies:

- strengthening the system for implementing the TOP;
- improving the administrative capacity of institutions participating in the management process of the Operational Programme;
- increasing the level of knowledge and institutional capacity of potential beneficiaries from the programme;
- ensuring a strategic base for transport sector development.

3.3.2 Indicative type of operations envisaged for funding
Operations under this priority axis cover 3 specific areas of activity:

a) Support to the management of the OP
The objective of this area of operations is to support the Managing Authority and its partners in carrying out activities related to the provisions of EU Regulations (specific and tailored support for coordination and management of the TOP: analyses, ex-ante and ongoing evaluations, implementation of monitoring control systems, information and publicity, revisions of existing Operational Programme, assistance in the preparation of the next OP covering transport, project identification, appraisal and selection, implementation support, financial management, IT support).

b) Strengthening the capacity of the MA and the potential Beneficiaries
The development of administrative capacity means improving the efficiency and effectiveness of the public bodies involved in implementing the Programme. The development of human resources is very time consuming. This type of operation envisages a continuous process of education and training in all areas of concern related to the management of OP and projects. Given the needs to address staff turnover within the public administration allied to the demands of EU funds management which are typically
higher than comparable civil service positions, co-financing of the salary costs of public officials within the management structure and project selection committees will be provided under this type of operation.

c) Preparation of transport strategic documents

Indicative activities under this key area of operations include the preparation of the Transport Development Strategy of Republic of Croatia with the related Traffic Model as long and medium term investment programming in the transport sector in Croatia. Also, activities under this area of activity include preparation of sectorial strategic documents for road, maritime, air, urban, multi-modal sub-sector.

3.3.3 Indicative list of beneficiaries

- The Managing Authority of the TOP
- Intermediate Body level 2 (CFCA)
- The Coordinating Body
- The Certifying Authority
- The Audit Authority
- Relevant organisational units of Ministry of Maritime Affairs, Transport and Infrastructure (MMATI)
- Existing and potential TOP beneficiaries

3.3.4 Quantified targets and indicators

<table>
<thead>
<tr>
<th></th>
<th>Definition</th>
<th>Type</th>
<th>Measurement unit</th>
<th>Baseline Value</th>
<th>Baseline date</th>
<th>Frequency of reviewing</th>
<th>Final target (by 2016)</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OP funds absorbed under operational Priority Axes</td>
<td>Result</td>
<td>%</td>
<td>0</td>
<td>2007</td>
<td>Biannually</td>
<td>100</td>
<td>MA assessment</td>
</tr>
<tr>
<td>2</td>
<td>Number of MA staff who received training*</td>
<td>Output</td>
<td>number</td>
<td>0</td>
<td>2007</td>
<td>Biannually</td>
<td>30</td>
<td>MA assessment</td>
</tr>
<tr>
<td>3</td>
<td>Publicity events organized</td>
<td>Output</td>
<td>number</td>
<td>0</td>
<td>2007</td>
<td>Biannually</td>
<td>14</td>
<td>MA assessment</td>
</tr>
<tr>
<td>4</td>
<td>Number of strategic documents prepared **</td>
<td>Output</td>
<td>number</td>
<td>0</td>
<td>2007</td>
<td>After project finalisation</td>
<td>1</td>
<td>MA assessment</td>
</tr>
</tbody>
</table>

*refers to trainings provided within TA contracts in this PA
**refers to transport strategic documents prepared within the TA contracts

3.4 Priority Axis 4 - Road and airport development (co-financed by ERDF)

3.4.1 Specific objectives

The aim of this priority axis is to develop and upgrade the infrastructure endowment of Croatia in the road and air transport sectors. It focuses on improving connections with
other EU member states, ensuring compatibility and full integration of Croatia into European road networks and the Schengen cooperation area. Investment will ensure that local links to the TEN-T network are improved where infrastructure capacity restricts further economic growth and regional benefit from the international networks, and will seek to reduce negative environmental effects such as congestion and pollution. In both sectors an emphasis will be placed on improving the opportunities to link different modes of transport and hence the future development of multi-modal interconnected transport facilities for passengers and freight e.g. the improvement of road links to port infrastructure.

In the road sector, investment will aid accessibility from secondary and tertiary roads to the TEN-T network, ensuring accessibility and movement of goods and people from regional centres, rural areas and the islands to larger centres and the mainland and hence to employment and services. Constructing bypass routes around major urban centres and eliminating bottlenecks will ensure improved safety, travel times and traffic flows, reducing negative impacts on the environment and cultural heritage of Croatia; enhanced regional accessibility will improve territorial cohesion and the attractiveness of local areas for business and tourism.

The construction of a new road entrance to the port complexes will increase traffic connectivity and mobility by shortening travel time, increase the level of services and decrease traffic congestion in the city centers and increase traffic safety.

This priority will also fund the expansion/upgrading of strategic airport infrastructure, of Dubrovnik airport development. Investment will upgrade the infrastructure quality and safety as well as improving airport capacity and the ability to deal with seasonal fluctuations resulting from tourism. The airport plays a vital role in the accessibility and development of the Dubrovnik area; the area is physically detached from the rest of the Croatian territory and tourism plays a strong role in Dubrovnik-Neretva County’s economic development. Improving airport capacity will lead to reduced isolation and congestion, and hence improve the attractiveness of the area to business and tourists and stimulate economic growth. Compliance with EU Schengen requirements will be ensured in preparation for Schengen border status in 2016. Public consultation for ‘Study on the environmental impact of the airport Dubrovnik’ was hold from 7 August to 5 September 2014 and it was concluded that development of Dubrovnik Airport is eligible for the environment. Purpose of the study was to analyse the current state of the environment and then the impact of the planned development on the environment, including significant impacts as noise, air pollution, impact on protected hunting/fishing areas, cultural and historical heritage.

3.4.2. Expected impacts

- Reductions in bottlenecks and congestion on Croatia’s roads and improvements in road accessibility internally / across Croatia’s regions and internationally to the TEN-T network;
- Improved quality, safety and capacity of Dubrovnik airport; ability to meet demand growth and further develop passenger figures;
- Better air connections between Dubrovnik and Dubrovnik-Neretva County.
3.4.3 Indicative type of operations envisaged for funding

- Construction / upgrade of facilities at Dubrovnik airport such as runway, taxiway and terminal buildings;
- Construction or re-construction of improved links between local, regional and national roads and TEN-T motorway routes or ports to remove bottlenecks, increase capacity and enhance accessibility to the TEN-T network and other EU member states; Construction of new road links bypassing key regional economic centres or relieving congestion at bottlenecks and reducing negative environmental impacts.

3.4.4 Indicative list of beneficiaries

Potential beneficiaries will include airport infrastructure managers/authorities, Hrvatske ceste d.o.o. and Hrvatske autoceste d.o.o.

3.4.5 Quantified targets and indicators

<table>
<thead>
<tr>
<th>Definition</th>
<th>Type</th>
<th>Measurement unit</th>
<th>Baseline value</th>
<th>Baseline date</th>
<th>Frequency of reviewing</th>
<th>Final target (by 2016)</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Km of new road</td>
<td>Output</td>
<td>km</td>
<td>0</td>
<td>2007</td>
<td>After project finalisation</td>
<td>11</td>
<td>Final/progress report</td>
</tr>
<tr>
<td>Shortening of travel time</td>
<td>Result</td>
<td>min</td>
<td>27,5</td>
<td>2007</td>
<td>After project finalisation</td>
<td>21,4</td>
<td>Final/progress report</td>
</tr>
<tr>
<td>Sqm of reconstructed airport terminals</td>
<td>Output</td>
<td>sqm</td>
<td>26000</td>
<td>2007</td>
<td>After project finalisation</td>
<td>52000</td>
<td>Final/progress report</td>
</tr>
<tr>
<td>Improved level of service for passengers</td>
<td>Result</td>
<td>terminal area per passenger in peak hour (m²)</td>
<td>21,9</td>
<td>2007</td>
<td>After project finalisation</td>
<td>&gt;25</td>
<td>Final/progress report</td>
</tr>
</tbody>
</table>

3.4.6 Indicative list of major projects

A list of indicative major projects is included in Annex 5.

3.4.7 Flexibility rule ESF/ERDF

No activities are envisaged to be financed using the Flexibility rule ESF/ERDF.
3.5 Demarcation with similar interventions under other OPs and EU funded programmes

The TOP MA has addressed demarcation with other Operational Programmes in cooperation with the other relevant Managing Authorities.

Demarcation with other Operational Programmes has been ensured through the participation of representatives of the relevant Managing Authorities (Ministry of Regional Development and EU Funds, Ministry for Environment and Nature Protection, Ministry of Construction and Physical Planning and) in the TOP Drafting Group.

Demarcation of activities at an EU level will be ensured by cooperation with the country’s EU neighbour Managing Authorities.

Demarcation of activities with non-EU member neighbours will be ensured primarily through appropriate level bilateral contacts.

All four OPs (Transport, Environment, Regional Competitiveness and Human Resource Development) are mutually dependent, since the performance of all sectors together is a key prerequisite for achieving sustainable development. In this sense, they are integrated in their contribution to Croatia’s economic, environmental and social future.

The complementarities and synergy between the four OPs is most evident in the light of the NSRF since its main task is to assure the consistency between priorities for the assistance from the SF. The text bellow describes consistency and correlation of TOP with the other OPs.

Environment (OPE)

Transport sector has a major influence on the environment. In that sense, the development of sustainable transport is closely linked to environmental protection and preservation. TOP has two priorities that complement environmental concerns: railways and inland waterways. This strategic decision is also in line with the orientation towards promotion of multi-modal transport and shift from polluting road to less polluting and energy efficient rail/river transport modes. Since the OPE is concentrated on waste sites and water supply issues there is no direct link or overlapping with TOP but on the long run both OPs together contribute to NSRF key strategic objective.

Regional Competitiveness (RCOP)

Adequately developed municipal (including environmental) infrastructure and social infrastructure is a precondition for economic development, attraction of investment and improvement of the quality of life, i.e. for enhancing business related and basic municipal infrastructure. The development of basic infrastructure is a prerequisite for the growth of productive investments and entrepreneurship activities. Additionally, investment conducted in the course of the TOP will create opportunities to increase SME development as well as to improve the investment climate and raise interest among domestic and foreign investors.

Human Resources Development (HRDOP)

Investment in transportation infrastructure should stimulate short-term employment within the construction sector, but it will also underpin economic activity within the beneficiary regions. In both cases, it is important that employment demand is matched by skill supply.
3.5.1 Rural Development
IPARD programme 2007-2013 serves as the planning document for the Programming document for the usage of the agricultural and fishery funds (agriculture and rural development) for the whole respective period. Similar to complementarity with other OPs TOP will contribute indirectly by assuring better communications.

3.5.2 Territorial Cooperation Programmes
The CBC/TC Territorial Cooperation Programmes are not supposed to finance any large-cost and durable infrastructure investments (like Objective Convergence area programmes), but mainly soft and small-scale activities. The projects must be designed by the representatives of both sides of the border, must clearly integrate the ideas, priorities and actions of stakeholders throughout the whole cross-border region in the two neighbouring countries. They must have a clear cross border impact which is impossible to be covered by the Objective convergence operational programmes. All projects under the CBC/TC programmes must obligatory meet a minimum of two of the following criteria: 1) joint development, 2) joint implementation, 3) joint staffing and 4) joint financing.

3.6 Complementarities with other sources of investment
A number of International Financing Institutions (IFIs) have been active in Croatia over recent years (e.g. European Bank for Reconstruction and Development, European Investment Bank, World Bank, etc). As a consequence the Croatian authorities have already gained considerable valuable experience of working with such organisations. With regard to the transport sector IFIs have been heavily involved over recent years in the development of the Croatian motorway network. In addition a number of pre-accession projects in the country have been co-financed by IFIs.

Ensuring complementarities of the TOP with the activities financed by IFIs is highly desirable as it enables a greater concentration of funding assistance in a specific area, as well as ensures a greater impact. In addition the experience of other Member States of working with IFIs has demonstrated that the implementation of such projects results in them often being of a higher quality, larger in scale and they have taken less time to implement. This stems from the considerable experience, access to technical expertise and the commercially minded approach to project implementation usually applied by IFIs.

Complementarities with other sources of investment will be ensured by inviting representatives of those IFIs that have expressed an interest in participating in the TOP to take part in the public consultation procedure for the development of the operational programme. At a later stage the IFIs having any role in the TOP will take part in the regular programme monitoring committees.

According to a recent analysis of the strategic priorities of the IFIs that operate in Croatia it is possible that they could be involved in specific transport related sectors as follows:

**EBRD**

Strategic Priority - “Privatisation and restructuring of state-owned companies - supporting the further expansion and modernisation of Croatian companies in the region”

Strategic Priority - “Support national infrastructure projects - energy efficiency-renewable energy”
EIB

Strategic Priority - “Financing of railway and national roads”

In accordance with the strategic priorities listed above IFIs are envisaged to be involved in the implementation of the TOP in accordance with the information presented in Annex 9.

JASPERS

JASPERS (Joint Assistance to Support Projects in European Regions) is an instrument which assists the 12 new EU Member States in the preparation of major projects to be submitted for grant financing under the Structural and Cohesion Funds.

The European Commission has indicated that the JASPERS facility will be made available to Croatia prior to EU accession in line with the practice established with the previous acceding countries. The JASPERS facility therefore is another instrument to be considered in the context of the co-ordination of funds with other international financial mechanisms.

SECTION 4: IMPLEMENTATION

This chapter describes the system of implementation of the TOP in accordance with the provisions laid down in Council Regulation (EC) No 1083/2006. The content of this chapter includes basic information allowing an understanding of the main implementation features of the OP.

4.1 Management

The overall responsibility for the correct and efficient implementation of the commitments embodied in the documents concerning the Structural Funds and the Cohesion Fund is ensured by the Government of the Republic of Croatia, represented by the Ministry of Regional Development and EU Funds, the Ministry of Finance, the Agency for the Audit of EU Programmes’ Implementation System (ARPA) and the Managing Authorities.

The institutional system for implementation of structural instruments is stipulated in the Law on establishment of institutional framework for utilization of the Structural Instruments of the European Union in the Republic of Croatia (OG No 78/12, 143/13 and 157/13-corrigendum) and Government regulation on bodies within management and control System for utilization of the Structural Instruments of the European Union in the Republic of Croatia (OG No 97/12).

The Ministry of Regional Development and EU Funds is designated to perform the role of central Coordinating Authority for the National Strategic Reference Framework. It shall ensure strategic coherence across the EU and national policies, and complementary use of national and EU financial resources in pursuing national development goals. Furthermore it is responsible for programming, setting up the System, adopting the rules, developing an integrated Management Information System (hereinafter referred to as the MIS), monitoring implementation at the national level as well as coordination with the Commission.

The Ministry of Finance is designated to perform the functions of Certifying Authority for all OPs, in line with the requirements of Article 59 of General Regulation No 1083/2006.
The Agency for the Audit of EU Programmes’ Implementation System has been designated the Audit Authority for all OPs, in line with the requirements of Article 59 of General Regulation No 1083/2006. The Audit Authority is operationally independent from the Managing Authorities and from the Certifying Authority.

According to the above-mentioned Law and Decree the institutional framework for the management of OP Transport is presented in the following table while the detailed description of the tasks is provided further in the text.

<table>
<thead>
<tr>
<th>Priority Axis 1 (railways)</th>
<th>Managing Authority</th>
<th>Intermediate Body Level 1</th>
<th>Intermediate Body Level 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Axis 2 (IWW)</td>
<td>Ministry of Maritime Affairs, Transport and Infrastructure</td>
<td>-</td>
<td>Central Finance and Contracting Agency</td>
</tr>
<tr>
<td>Priority Axis 3 (technical assistance)</td>
<td>-</td>
<td>Central Finance and Contracting Agency</td>
<td></td>
</tr>
<tr>
<td>Priority Axis 4 (road and airport)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Managing Authority for the TOP**


The function of Managing Authority for the TOP is performed by the Ministry of Maritime Affairs, Transport and Infrastructure: Sector of EU Funds.

The current Organizational chart of the MA with internal units:
In respect of the requirements of Article 60 of Council Regulation (EC) No 1083/2006, the Managing Authority of the TOP is responsible for managing and implementing the TOP in accordance with the principles of sound financial management and clear separation of functions.

The responsibilities and functions of the Managing Authority are the following:

a) ensures that projects are selected for funding in accordance with the criteria applicable to the Operational Programme and that they comply with applicable national and European Union rules for the whole of their implementation period;

b) ensures verification that the co-financed products and services are delivered and that all the expenditure declared by the beneficiaries for projects have actually been incurred and comply with European Union and national rules;

c) ensures that there is a system for recording and storing in electronic form accounting records for each project under the Operational Programme and that the data on implementation necessary for financial management, monitoring, verifications, audits and evaluation are collected;

d) ensures that beneficiaries and other bodies involved in the implementation of projects maintain either a separate accounting system or an adequate accounting code for all transactions relating to the project without prejudice to national accounting rules;

e) ensures that evaluations of Operational Programmes are carried out;

f) establishes procedures to ensure that all documents regarding expenditure and audits required to ensure an adequate audit trail are kept in accordance with the requirements;

g) ensures that the Certifying Authority receives all necessary information on the procedures and verifications carried out in relation to expenditure for the purpose of certification;

h) establishes the Monitoring Committee for each Operational Programme in agreement with the Coordinating Body and ensures its proper functioning;

i) guides the work of the Monitoring Committee and provides it with the documents required to permit the quality of the implementation of the Operational Programme to be monitored in the light of its specific goals;

j) draws up and, after approval by the Monitoring Committee, submits to the Commission the annual and final reports on implementation of Operational Programmes;

k) implements the information and visibility measures as defined in the communication plan prepared by the Coordinating Body;

l) provides to the Commission the information to allow it to appraise major projects;

m) provides to the Intermediate Bodies the instructions for the performance of the delegated tasks;

n) supervises the performance of Intermediate Bodies on risk-assessment basis;

o) monitors the progress of implementation of the Operational Programme and conducts annual examination;

p) monitors the implementation of n+3 rule and takes necessary measures to avoid de-commitment;
q) coordinates preparation of and endorses plans for implementation of Operational Programme priorities and approves measures in line with the same (could be changed by approval of Programme complement);

r) organises and chairs annual review meetings with the Commission on the progress of the implementation of the Operational Programme;

s) carries out the evaluations as defined in the evaluation plans;

t) contributes to the preparation of description of the System;

u) prepares internal written procedures for performance of its functions following the Rules approved by the Coordinating Body;

v) enters relevant data in MIS and ensures exchange of data with the Commission through the SFC2007;

w) stores the documents and records of the performance of functions to ensure adequate audit trail.

Within the MA, the requirements for segregation of functions of selection and approval of operations and management verifications will be fully respected. Internally, the tasks of implementation and monitoring of operations will be separated from the control tasks.

**Intermediate body**

The functions of the Managing Authority set out in Article 60 of Council Regulation (EC) No 1083/2006 provide a suitable framework for allocating the functions of the Managing Authority between the Managing Authority and the Intermediate Bodies. In line with articles 2.6 and 59.2 of Council Regulation (EC) No 1083/2006, provision of the Law on Establishment of Institutional Framework provide the possibility for the TOP Managing Authority to delegate the implementation of designated OP priority axes 2 and 3 to Intermediate Bodies level 2.

Intermediate Body level 2 is a national or public body which, under the responsibility of the Managing Authority, performs the delegated functions related to the verification that the funded products and services are delivered and that the expenditure declared by the beneficiary for the project has been actually incurred and complies with national and European Union rules for the whole of the project implementation and durability period.

This role is performed by Central Finance and Contracting Agency (CFCA).

**Potential Beneficiaries**

Potential beneficiaries of operations envisaged in the TOP are the bodies applying for support to implement operations in accordance with the OP provisions. Such entities are public bodies and authorities in the transport sector.

Beneficiaries will be mainly responsible for:

- a) development of the application for the provision of assistance;
- b) proper implementation of the operation/project;
- c) reporting to the MA/IB on the financial and physical progress of the operation/project;
- d) compliance with publicity and information requirements in accordance with EU rules and with the Communication Plan (at the operation/project level).
The beneficiaries shall be responsible for ensuring that the expenditure they declare for co-financing is legal and regular and complies with all applicable Community and national rules. For providing this assurance, the beneficiaries shall have in place their own internal control procedures.

In submitting the payment claims for expenditure eligible for co-financing, beneficiaries shall substantiate the incurred expenditures and their compliance with the requirements contained in the financing decision on the funds to be allocated within the assistance. All payment claims must be supported by confirmed invoices and other documents of equal probative value.

The beneficiaries must keep project dossiers providing adequate audit trails. Guidelines for beneficiaries will include detailed provisions for audit trails.

The beneficiaries must make the documents on projects available at any time for inspections carried out by authorized persons or entities. The documents shall be archived in compliance with applicable regulations.

**Main principles in regard to selection and approval of operations:**

In the overall process of implementation of the TOP it is the Managing Authority that bears the overall responsibility for the project selection and contracting procedures under the programme. It develops the project selection criteria in cooperation with the Coordinating body which submits them for approval to the Monitoring Committee (MC). The Managing Authority guarantees the transparency, objectivity and efficiency of the selection procedure, and thus the quality of selected projects.

The operations/projects of TOP shall be selected for funding by using the following types of selection procedure:

- a call for proposals, carried out by the MA;
- a direct grant award procedure, where the beneficiary shall be explicitly indicated under the respective priority axis and the area of support.

**4.2 Monitoring and Evaluation**

**Monitoring**

Monitoring of the TOP is the responsibility of the OP Managing Authority under the control of the TOP Monitoring Committee (MC). Monitoring is carried out under the partnership principle.

At all levels of management, uniform monitoring principles will apply, both in physical and financial monitoring, and information and reports will be presented in agreed format and limited to certain indicators.

The Monitoring Committee will be set up within three months after the decision approving the OP, as per Art. 63 of Council Regulation (EC) No 1083/2006. The main responsibility of the Monitoring Committee is to ensure the effectiveness and quality of the implementation of the TOP.

Membership of the TOP Monitoring Committee will comprise representatives of the TOP Managing Authority, Intermediate body, representatives of the Coordinating Body, of the
Certifying Authority, Audit Authority, beneficiaries, social partners, relevant NGOs, among which representatives of national and regional organizations interested in active participation in OP implementation. Representatives of the European Commission shall participate in an advisory capacity in the Monitoring Committee; when appropriate, delegates of the European Investment Bank and European Investment Fund or other financing institutions will also be invited.

Subsequent changes in the membership or composition of the MC may be agreed by the MC itself, subject to national legislation, without any requirement to amend the TOP.

The Monitoring Committee of the TOP will be chaired by the Head of the Managing Authority.

The MC will draw up and adopt its own rules of procedure within the national institutional, legal and financial framework. The MA of the TOP will provide the Secretariat of the Monitoring Committee.

**Evaluation**

Evaluation of the OP is an important tool, necessary for the overall management of the OP. It is meant to assess the relevance, efficiency and effectiveness of the financial assistance deployed, as well as the impact and sustainability of the results achieved.

The systematic evaluation of the TOP will be performed in full compliance with the provisions set forth in Council Regulation (EC) No 1083/2006, articles 47-49.

Three types of evaluations are relevant for this OP:

- ex ante evaluation (see chapter 2.4. and Annex 2);
- interim evaluation (during the period of implementation of the OP);
- ex post evaluation.

The national institutional framework for evaluation comprises 2 levels:

- Coordinating Authority prepares methodology and strategy for evaluation of Operational Programmes evaluations plans, coordinates, organizes or performs evaluations related to the use and implementation of structural instruments, ensures that general public is familiarized with the results and ensures implementation of activities;
- Managing authority carries out the evaluations as defined in the evaluation plans.

The evaluations will be financed mainly from the technical assistance budget.

Under the coordination of MRDEUF, a follow-up mechanism for evaluation recommendations shall be set forth in the Evaluation Procedures Manual to be applied by the TOP MA.

The evaluation results shall be made publicly available through an easily identifiable and accessible means of communication.

**4.3 Certification of expenditure (Certifying Authority)**

The Ministry of Finance is designated to perform the functions of Certifying Authority for all OPs. In line with the provisions of Article 61 of General Regulation No 1083/2006.
The Certifying Authority, being a national body responsible for certifying statement of expenditure and applications for payment before submission of the same to the Commission, performs the following functions:

- draws up and submits to the Commission certified statements of expenditure and applications for payment;
- certifies the expenditure;
- ensures for the purposes of certification the receipt of adequate information from the Managing Authority on the procedures and verifications carried out in relation to expenditure included in statements of expenditure;
- takes account for certification purposes of the results of all audits carried out by and under the responsibility of the Audit Authority;
- maintains accounting records in electronic form of expenditure declared to the Commission;
- keeps an account of amounts recoverable and of amounts withdrawn following cancellation of all or part of the contribution for a project;
- provides the Commission with the provisional forecast of the applications for payments;
- provides the Commission with the statement on withdrawn and recovered amounts, pending recoveries and irrecoverable amounts.

The institution performing the functions of the Certifying Authority may also be responsible for payments, additionally verification, irregularity monitoring and preparing part of the Rules governing activities of the bodies in the System.

The Certifying Authority does not intend to delegate its functions to other bodies.

4.4 Verifications of expenditure and functioning of the system (Audit Authority)

The Government of Croatia has designated the Agency for the Audit of European Union Programmes' Implementation System (ARPA) to perform the functions of the Audit Authority in accordance with Article 62 of Council Regulation (EC) No 1083/2006.

Audit Authority, being the national body functionally independent from the Managing Authority and the Certifying Authority responsible for external audit of the proper and efficient functioning of the System, performs the following tasks:

- ensures that audits are carried out to verify the efficient functioning of the System;
- ensures the execution of audits of operations on the basis of an appropriate sample in order to verify expenditure declared;
- prepares and submits to the Commission audit strategy;
- prepares and submits to the Commission annual control report and final control report;
- issues an opinion as to whether the System is functioning properly and effectively in order to provide reasonable assurance that statements of expenditure presented to the Commission are accurate and there is a reasonable belief that the subject transactions are legal and regular;
- where applicable, submits to the Commission a declaration for (partial) closure assessing the legality and regularity of the expenditure concerned;
- prepares internal written procedures for performance of its functions;
- during audits takes into account internationally accepted audit standards;
• enters relevant data in MIS and ensures exchange of data with the Commission through the SFC2007;
• stores documents and record of the performance of functions to ensure adequate audit trail;
• performs compliance assessment of the System for each Operational Programme and prepares a report setting out the results of the assessment and giving an opinion on the compliance of the System with relevant EU Regulations.

The Audit Authority does not intend to delegate its functions to other bodies.

4.5 Financial Flows

The main procedures for mobilization and circulation of financial flows in order to ensure their transparency while implementing this operational programme are presented below. It is important to emphasize that the system described herein is common for all EU structural assistance administered in Croatia according to the Convergence objective; therefore, it will be equally applied to all operational programmes under the aforementioned objective. The following two essential aspects of the financial flow system may be distinguished: a) co-financing of actions by EU structural assistance and national funds; b) the cycle of movement of EU funds to beneficiaries.

The national co-financing of EU structural assistance will be ensured from the resources of the state budget, other national public contribution, municipal budgets, and beneficiaries’ own funds. Taking into consideration the possibility envisaged in the Regulation, private funds will comprise a part of national co-financing.

The potential of the national co-financing of EU structural assistance will be ensured by the integrated planning of EU structural assistance in the State budget. The State budget preparation and provision for EU structural assistance and national co-financing is ensured in accordance with the applicable Instruction for preparation of State budget of Republic of Croatia for certain period (issued by the State Treasury of the Ministry of Finance), and forms part of overall procedure related to preparation of the State budget. As a rule, the funds from EU structural assistance designated for allocation to a particular economic sector will be included into the annual budget of a relevant budget user - Intermediate body 1 (usually - a relevant ministry), responsible for co-ordination of the state policy in this area, by integrating these funds into budget appropriations.

The European Commission will transfer EU structural assistance funds to a separate bank account opened specially for each fund with the Croatian National Bank and administered by the State Treasury of the Ministry of Finance. These funds will be transferred to the single treasury account, which is located in the Croatian National Bank. These funds will be transferred to beneficiaries through the State Treasury Financial Information System (STFIS). STFIS is designed to process all transactions relating to all phases of the budgetary cycle. All budget users are connected into a single financial information system- STFIS through which State treasury may conduct transactions. For Priority Axes 2 and 3 beneficiaries will submit payment applications to the Intermediate body 2 that will verify the eligibility of expenditure declared by the beneficiaries to be financed from EU structural assistance funds, following the procedure established in the common rules adopted by Coordinating Body (MRDEUF) and following relevant instructions of the Managing Authority. In Priority Axes 1 and 4 beneficiaries will submit payment applications directly to the Managing Authority.
After setting the amounts specified in payment applications eligible for financing from EU structural assistance funds, the budget user-Intermediate body, will prepare the requests for payment (RfPs) to the State treasury for the amounts to be proceeded in STFIS. After preparation of the RfP in STFIS, the process of verification and validation of the RfP will take place following the general procedure for payment of the State budget funds. After receipt of a proper RfP for a particular State budget appropriation item, under which expenditure of EU structural assistance is planned, the State Treasury of the Ministry of Finance will transfer the amount of EU structural assistance funds specified in the RfP from a single treasury account directly to the beneficiary.

Thus, transparency of the cycle of movement of EU funds down to beneficiaries shall be ensured by the mentioned several key measures:

- After EU structural assistance is integrated into the State budget, during its payment the general control measures for payment of the State budget funds shall be applied;
- EU funds, using STFIS, will be transferred directly to beneficiaries, thus enhancing the performance of the audit trail principle, also allowing to implement the principle laid down in the Regulation, stating that EU funds have to reach the beneficiary as soon as possible, in a most effective manner;
- The system will ensure that in all cases EU funds for beneficiaries will be transferred only after verification and validation of amounts eligible for financing from EU structural assistance funds by the procedure established by the Coordinating Body (MRDEUF) and instructions of the Managing Authority.

STFIS will also ensure that all interest accrued on EU structural assistance transferred to Croatia in advance will be designated for the implementation of this operational programme as public national co-financing.

Flowchart of financial flows is presented in the Annex 8.

4.6 Information and publicity

Information and publicity actions of the TOP will be included in the Communication Plan (CP) prepared in accordance with Commission Regulation (EC) No 1828/2006 and they aim to:

- raise public awareness on EU Cohesion Policy and on the opportunities offered by the Structural Funds and Cohesion Fund in Croatia;
- highlight the role played by the European Union in co-financing TOP activities, in supporting Croatia’s economic competitiveness, in fostering economic development and reducing regional disparities;
- raise public awareness of the TOP and its objectives, priority axes and mechanisms;
- inform potential beneficiaries on the conditions of eligibility for financing under TOP, the procedures for examining applications for funding and the timeframe foreseen, the criteria for selecting the operations to be financed, and the contacts at the national, regional or local level providing information on the TOP;
- disseminate information on approved and financed projects as well as on the results achieved and best practices;
- ensure access to information for all target groups;
- ensure maximum comprehensibility of the information provided to the public on the Funds’ allocation and management.

The following target groups have been identified for the information and communication actions of the TOP:

a) the general public;
b) the (potential) beneficiaries;
c) opinion leaders and the media, with particular reference to: leading economic and financial newspapers, leading TV and radio stations; key local media;
d) the “partners for communication”, i.e., all those bodies that can help the Managing Authority to disseminate information widely.

Beneficiaries will be informed about their responsibilities, such as: informing the public about the assistance obtained from the Structural Funds and the Cohesion Fund, displaying billboards, permanent explanatory plaques and the emblem of the European Union referred to in Art. 8 of Commission Regulation (EC) No 1828/2006, complying with the technical characteristics of information and publicity measures referred to in Art. 9 of Commission Regulation (EC) No 1828/2006.

The beneficiaries shall also be informed that their projects are part of a priority axis in an Operational Programme co-financed by the ERDF and that their names, the name of the operations and the amount of public funding that is allocated to the operations will be published.

The tasks of the TOP Monitoring Committee with relation to information and publicity issues include adopting the Communication Plan and monitoring its implementation. Communication and publicity measures will be subject to evaluations made by the MA TOP and by the TOP Monitoring Committee.

The Coordinating Body shall ensure the coordination of communication activities among institutions engaged in information and publicity activities for all the OPs across the Structural Instruments system.

Managing Authority ensures the with the requirements stipulated in the Art 69 of the Council Regulation (EC) No 1083/2006 and implements the information and visibility measures as defined in the communication plan prepared by the Coordinating Body.

MA and Intermediate Body level 2 jointly implement information and visibility measures as defined in the communication plan prepared by the Coordinating Body, with special attention on the measures intended for the beneficiaries.

Operations envisaged under the CAP are specified in the Technical Assistance priority axis of the OP.
4.7 Management Information System (MIS)

In view of accumulation, summarising and presenting the data of the ERDF, ESF and Cohesion funds, Croatia uses a single Management Information System (MIS). The scope of the Management Information System is twofold and its purpose is to manage operational programmes and projects, as well as to serve as financial control mechanism to enable the smooth processing of payments.

The MIS ensures that all the data, necessary for financial management, monitoring, supervision, audit and evaluation are collected and secured as required by the General and Implementation Regulations.

MIS provides a possibility to monitor the operational data and financial information on:

- implementation of separate projects, financed from Structural Funds and Cohesion Fund;
- progress of implementation of separate operational programmes;
- general progress of implementation of the assistance under the Convergence Objective;
- verifications of results, detected irregularities, and audit.

MIS facilitates implementation of the following functions:

1. Management: placement of the data on financial plans and indicators of operational programmes into computer system, forecasts and monitoring of financial plans and indicators, supervision of obligations and execution of payment plans, control of the N+2/N+3 rule.

2. Administration: project registration, administration of agreements, forecasts on projects implementation and supervision of their execution, registration of verification results, control of eligibility of expenditure and payment. This function also includes the provision of accumulated data enabling for an easy identification of project implementation and payments problems.

3. Accountability: provision of information on progress of projects, elaboration of summaries for reports, provision of information on the expenditure, collection of information necessary for execution of control, audit, evaluations, submission of reports to the Commission via electronic media (for audit purposes, pursuant to the requirements of Council Regulation (EC) No 1083/2006).

The system allows for a multi-user group environment with distinct roles and tasks.

MIS is managed centrally by the Coordinating Body (MRDEUF) and developed in cooperation with other institutions; managing authorities, responsible ministries (Intermediate body 1), agencies (Intermediate body 2), certifying and audit authority. The system issues numbers of standard and customised reports to meet the needs of the various data groups, both on an ad hoc and/or regular basis. It is envisaged that data placement commence in July 2013.

This system ensures the data transmission between Managing Authority and the European Commission (as foreseen in Article 60 (c) of Council Regulation (EC) No 1083/2006).
5.1 Annual commitments

Operational programme reference (CCI number): 2007HR161PO002

Year by source for the programme, in EUR:

<table>
<thead>
<tr>
<th>Year</th>
<th>ERDF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>17.000.250,00</td>
</tr>
<tr>
<td>2008</td>
<td>8.693.425,00</td>
</tr>
<tr>
<td>2009</td>
<td>18.500.250,00</td>
</tr>
<tr>
<td>2010</td>
<td>21.300.000,00</td>
</tr>
<tr>
<td>2011</td>
<td>21.900.000,00</td>
</tr>
<tr>
<td>2012</td>
<td>19.000.000,00</td>
</tr>
<tr>
<td>2013</td>
<td>130.589.380,00</td>
</tr>
<tr>
<td>Total</td>
<td>236.983.305,00</td>
</tr>
</tbody>
</table>

5.2 Total financial allocation

The table below demonstrates the financial plan of the TOP giving, for the whole programming period, the amount of the total financial allocation of each fund in the operational programme, the national counterpart and the rate of reimbursement by priority axis.
<table>
<thead>
<tr>
<th>Priority Axis</th>
<th>Description</th>
<th>Fund: ERDF</th>
<th>Co-financing rate</th>
<th>EIB contributions</th>
<th>Other funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 1</td>
<td>Modernisation of railway infrastructure and Project preparation in transport sector</td>
<td>109.994.970,00</td>
<td>85%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Priority 2</td>
<td>Upgrading Croatia’s inland waterway system</td>
<td>3.206.198,00</td>
<td>85%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Priority 3</td>
<td>Technical Assistance</td>
<td>7.886.327,00</td>
<td>85%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Priority 4</td>
<td>Road and airport development</td>
<td>115.895.810,00</td>
<td>85%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>236.983.305,00</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Revenue generating projects

It should be noted that the financial table in the TOP identifies the estimated maximum Community contribution and national co-financing at Priority Axis level, and not at project level. It should be understood that the actual rate of financing at project level will be affected by the number of projects that will be implemented, as well as by restrictions stemming from state aid regulations (See Annex 8: State aid guidelines for the TOP 2007-2013), or by the rules on revenue generating projects. These factors have been taken into account when preparing the financial plan.

Major projects

Projects with a global value exceeding 50 million EUR are defined as major projects. These are subject to evaluation and a subsequent decision on funding by the Commission. The Commission’s decision shall define the physical object, the amount to which the co-financing rate for the priority axis applies, and the annual plan for commitment appropriations for the ERDF or Cohesion Fund. An indicative list of major projects is presented in Annex 5.

Special attention will be given to the cost benefit analysis. Standard values applying to infrastructure projects will be used in agreement with the Commission when assessing the projects for the transport sector.

During the implementation of the TOP, potential economic, financial, technical and/or social risks may be associated with the major projects. At the level of the project, risk management will be provided by the cost benefit analysis.

5.3 Indicative breakdown of categorization of expenditure and fulfilment of Lisbon earmarking requirements

The TOP contains an indicative breakdown of fund allocation by category in line with the provisions of Articles 37, par.1 (d) of Council regulation (EC) No 1083/2006 and according to Commission Regulation (EC) No 1828/2006. The categorization represents the ex-ante estimation on the use of the funds under TOP; the categories considered are the codes by dimension (Priority Theme, Form of finance and Territory type), as they are listed in Annex II of Commission Regulation (EC) No 1828/2006. The table with the indicative breakdown of fund allocation by category of intervention will be provided in Annex 6.
ANNEXES

Annex 1: Composition of the TOP drafting group
Annex 2: Supplementary information using standard indicators
Annex 3: Ex Ante Evaluation report
Annex 4: Strategic Environmental Assessment report
Annex 5: Indicative list of major projects
Annex 6: Indicative breakdown of expenditure by category of intervention
Annex 7: State aid guidelines for the TOP 2007-2013
Annex 8: Financial Flows
Annex 1: Composition of the TOP drafting group

- Ministry of Sea, Transport and Infrastructure (MSTI) (now Ministry of Maritime Affairs, Transport and Infrastructure (MMATI))
  - MSTI - Directorate of Strategic Infrastructural Objects (now MMATI - Directorate of Transport Infrastructure and EU Funds) (Managing Authority)
  - MSTI - Railways Directorate (now MMATI - Directorate for Road and Railway Traffic)
  - MSTI - Directorate for Inland Waterway Navigation (now MMATI - Directorate for Maritime and Inland Navigation, Shipping, Ports and Maritime Domain)
  - MSTI - Directorate for Air Traffic (now MMATI - Directorate for Air Traffic, Electronic Communications and Postal Services)
  - MSTI - Directorate for Seafaring, Maritime Domain and Ports (now MMATI - Directorate for Maritime and Inland Navigation, Shipping, Ports and Maritime Domain)
  - MSTI - Directorate for Islands and Coastal Development
- Hrvatske ceste d.o.o.
- Ministry of Regional Development, Forestry and Water Management (now Ministry of Regional Development and EU Funds)
- Regional Development Agency
- Ministry of Finance - National Fund
- Ministry of Environmental Protection, Physical Planning and Construction (now Ministry of Environmental and Nature Protection)
- Central Office for Development Strategy and Coordination of EU Funds (now part of the Ministry of Regional Development and EU Funds)

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6 Names of ministries (directorates) and agencies at the time of establishing the TOP drafting group.
Annex 2: Supplementary statistical information using standard indicators

Table 1  
Goods transport

<table>
<thead>
<tr>
<th></th>
<th>Railway transport</th>
<th>Road transport*</th>
<th>Pipeline transport</th>
<th>Maritime and coastal transport¹</th>
<th>Inland waterways transport</th>
<th>Air transport</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transported goods x 1,000 tonnes</td>
<td>Transported oil and gas, 1,000 tonnes</td>
<td>Transported goods x 1,000 tonnes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>10 059</td>
<td>4 872</td>
<td>6 775</td>
<td>32 483</td>
<td>1 045</td>
<td>6.10</td>
</tr>
<tr>
<td>2001</td>
<td>10 807</td>
<td>40 801</td>
<td>7 969</td>
<td>32 051</td>
<td>1 123</td>
<td>9.07</td>
</tr>
<tr>
<td>2002</td>
<td>10 654</td>
<td>45 957</td>
<td>8 839</td>
<td>30 647</td>
<td>739</td>
<td>9.02</td>
</tr>
<tr>
<td>2003</td>
<td>11 723</td>
<td>52 147</td>
<td>9 070</td>
<td>34 223</td>
<td>706</td>
<td>10.18</td>
</tr>
<tr>
<td>2004</td>
<td>12 234</td>
<td>55 323</td>
<td>9 879</td>
<td>31 226</td>
<td>897</td>
<td>11.15</td>
</tr>
<tr>
<td>2005</td>
<td>14 333</td>
<td>58 886</td>
<td>9 396</td>
<td>29 975</td>
<td>430**</td>
<td>18.16</td>
</tr>
<tr>
<td>2006</td>
<td>15 395</td>
<td>63 840</td>
<td>8 644</td>
<td>31 423</td>
<td>400</td>
<td>13.20</td>
</tr>
<tr>
<td>2007</td>
<td>15 764</td>
<td>66 814</td>
<td>9 688</td>
<td>32 420</td>
<td>384</td>
<td>15.12</td>
</tr>
<tr>
<td>2008</td>
<td>14 851</td>
<td>110 812***</td>
<td>8 765</td>
<td>30 768</td>
<td>268</td>
<td>14.26</td>
</tr>
<tr>
<td>2009</td>
<td>14 851</td>
<td>92 847</td>
<td>8 756</td>
<td>30 768</td>
<td>267</td>
<td>13.02</td>
</tr>
<tr>
<td>2010</td>
<td>12 203</td>
<td>74 967</td>
<td>8 936</td>
<td>31 948</td>
<td>515</td>
<td>3.00</td>
</tr>
<tr>
<td>2011</td>
<td>11 794</td>
<td>74 645</td>
<td>7 772</td>
<td>30 348</td>
<td>502</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Sources: Central Bureau of Statistics of the Republic of Croatia

¹- Data include ships with both, national and foreign flags

Note: *Since 2001, public transport and own-account transport have been included in the road transport of goods. **Interruption of time series. *** Interruption of time series - since 1st January 2008 the survey has been revised, so that the data is completely harmonized with EU legislation and therefore is not comparable with previous years.

Remark: The figures concerning Inland Waterway transport do not include transit transport which is significant. At the moment, it is not possible to measure transit transport on Inland waterways. In the nearest future, it should be possible with the implementation of the River Information System (RIS) which is being implemented.

Table 2  
Transport of goods in inland waterway ports (in tonnes)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osijek</td>
<td>184 000</td>
<td>197 000</td>
<td>256 414</td>
<td>355 856</td>
<td>478 000</td>
<td>464 105</td>
<td>466 420</td>
<td>380 000</td>
</tr>
<tr>
<td>Sisak</td>
<td>210 000</td>
<td>205 000</td>
<td>201 000</td>
<td>198 000</td>
<td>174 000</td>
<td>156 935</td>
<td>139 899</td>
<td>138 000</td>
</tr>
<tr>
<td>Slavonski Brod</td>
<td>210 000</td>
<td>205 000</td>
<td>201 000</td>
<td>198 000</td>
<td>174 000</td>
<td>156 935</td>
<td>139 364</td>
<td>138 000</td>
</tr>
<tr>
<td>Vukovar</td>
<td>75 000</td>
<td>110 000</td>
<td>248 856</td>
<td>386 891</td>
<td>805 651</td>
<td>925 534</td>
<td>875 125</td>
<td>451 630</td>
</tr>
<tr>
<td>TOTAL (tonnes)</td>
<td>679 000</td>
<td>717 000</td>
<td>907 270</td>
<td>1 138 747</td>
<td>1 629 651</td>
<td>1 703 509</td>
<td>1 620 544</td>
<td>1 107 630</td>
</tr>
</tbody>
</table>

Source: Ministry of Maritime Affairs, Transport and Infrastructure, Inland Navigation Authority
Table 3  
Railways: main indicators, 2010

<table>
<thead>
<tr>
<th></th>
<th>Railways km</th>
<th>Electrified km</th>
<th>Electrified %</th>
<th>Population millions</th>
<th>km/100,000 inhabitants</th>
<th>Area 1,000 km²</th>
<th>km/1,000 km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU27</td>
<td>212 345</td>
<td>110 954</td>
<td>52.3</td>
<td>500 556</td>
<td>42</td>
<td>4324.8</td>
<td>49</td>
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<tr>
<td>EU15</td>
<td>151 391</td>
<td>84 755</td>
<td>56.0</td>
<td>397 397</td>
<td>38</td>
<td>3236.9</td>
<td>47</td>
</tr>
<tr>
<td>EU12</td>
<td>60 954</td>
<td>26 199</td>
<td>43.0</td>
<td>103 159</td>
<td>59</td>
<td>1087.9</td>
<td>56</td>
</tr>
<tr>
<td>BE</td>
<td>3 582</td>
<td>3 064</td>
<td>85.5</td>
<td>10 952</td>
<td>33</td>
<td>30.5</td>
<td>117</td>
</tr>
<tr>
<td>BG</td>
<td>4 097</td>
<td>1 785</td>
<td>43.6</td>
<td>7 505</td>
<td>55</td>
<td>111.0</td>
<td>37</td>
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<tr>
<td>CZ</td>
<td>9 468</td>
<td>3 210</td>
<td>33.9</td>
<td>10 533</td>
<td>90</td>
<td>78.9</td>
<td>120</td>
</tr>
<tr>
<td>DK</td>
<td>2 646</td>
<td>621</td>
<td>23.5</td>
<td>5 561</td>
<td>48</td>
<td>43.1</td>
<td>61</td>
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<tr>
<td>DE</td>
<td>33 707</td>
<td>19 819</td>
<td>58.8</td>
<td>81 752</td>
<td>41</td>
<td>357.1</td>
<td>94</td>
</tr>
<tr>
<td>EE</td>
<td>787</td>
<td>132</td>
<td>16.8</td>
<td>1 340</td>
<td>61</td>
<td>45.2</td>
<td>17</td>
</tr>
<tr>
<td>IE</td>
<td>1 919</td>
<td>52</td>
<td>2.7</td>
<td>4 481</td>
<td>44</td>
<td>70.3</td>
<td>27</td>
</tr>
<tr>
<td>EL</td>
<td>2 552</td>
<td>368</td>
<td>14.4</td>
<td>11 310</td>
<td>23</td>
<td>132.0</td>
<td>19</td>
</tr>
<tr>
<td>ES</td>
<td>15 837</td>
<td>9 439</td>
<td>59.6</td>
<td>46 153</td>
<td>34</td>
<td>506.0</td>
<td>31</td>
</tr>
<tr>
<td>FR</td>
<td>29 841</td>
<td>15 635</td>
<td>52.4</td>
<td>63 128</td>
<td>47</td>
<td>544.0</td>
<td>55</td>
</tr>
<tr>
<td>IT</td>
<td>17 022</td>
<td>12 028</td>
<td>70.7</td>
<td>60 626</td>
<td>28</td>
<td>301.3</td>
<td>56</td>
</tr>
<tr>
<td>CY</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0 804</td>
<td></td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>LV</td>
<td>1 897</td>
<td>257</td>
<td>13.5</td>
<td>2 230</td>
<td>86</td>
<td>64.6</td>
<td>29</td>
</tr>
<tr>
<td>LT</td>
<td>1 767</td>
<td>122</td>
<td>6.9</td>
<td>3 245</td>
<td>55</td>
<td>65.3</td>
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<td>0 512</td>
<td>55</td>
<td>2.6</td>
<td>106</td>
</tr>
<tr>
<td>HU</td>
<td>7 609</td>
<td>2 727</td>
<td>35.8</td>
<td>9 986</td>
<td>77</td>
<td>93.0</td>
<td>82</td>
</tr>
<tr>
<td>MT</td>
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<td>-</td>
<td>-</td>
<td>0 418</td>
<td></td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>NL</td>
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<td>2 195</td>
<td>76.1</td>
<td>16 656</td>
<td>17</td>
<td>41.5</td>
<td>70</td>
</tr>
<tr>
<td>AT</td>
<td>5 039</td>
<td>3 427</td>
<td>68.0</td>
<td>8 404</td>
<td>60</td>
<td>83.9</td>
<td>60</td>
</tr>
<tr>
<td>PL</td>
<td>19 702</td>
<td>11 854</td>
<td>60.2</td>
<td>38 200</td>
<td>52</td>
<td>312.7</td>
<td>63</td>
</tr>
<tr>
<td>PT</td>
<td>2 842</td>
<td>1 487</td>
<td>52.3</td>
<td>10 637</td>
<td>27</td>
<td>92.1</td>
<td>31</td>
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Source: European Commission, Statistical Pocketbook 2012
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Source: National Railway Infrastructure Programme for the period 2008 to 2012
Table 5  Greenhouse gas emissions due to transport, 1990-2008, in million tonnes CO² equivalent

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<th>2008</th>
<th>% of change 1990-2008</th>
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<tr>
<td>CH</td>
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<td>20.9</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: European Commission, Statistical Pocketbook 2011
Annex 3: Ex Ante Evaluation report

The complete report will be inserted into the text of the OP with the final draft, to ease the handling of the draft document at this stage. The report will however be communicated in electronic form as a separate document at this point and the body of the text contains a summary of findings and recommendations.
Annex 4: Strategic Environmental Assessment report

The Strategic Environmental Assessment report from 2013 and the Strategic Environmental Assessment report from 2015 will be inserted into the text of the OP with the final draft.
Annex 5: Indicative list of major projects

<table>
<thead>
<tr>
<th>Name of project</th>
<th>Total Project Costs</th>
<th>Eligible Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Zagreb Main Station Signalling and Interlocking System*</td>
<td>11,644,760,00</td>
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</tr>
<tr>
<td>2. Okučani to Novska Railway Rehabilitation and Upgrade*</td>
<td>35,853,299,98</td>
<td></td>
</tr>
<tr>
<td>3. Upgrade and construction of second track on railway line section Dugo Selo - Križevci</td>
<td>247,828,579,00</td>
<td>198,032,853,00</td>
</tr>
<tr>
<td>4. Reconstruction and electrification of Zaprešić - Zabok railway section</td>
<td>82,299,465,00</td>
<td>80,605,068,00</td>
</tr>
<tr>
<td>5. Dubrovnik airport development</td>
<td>239,534,948,00</td>
<td>229,260,948,00</td>
</tr>
</tbody>
</table>

*Those two projects, when submitted to EC, were treated as major projects as per IPA regulative (the threshold for major project was 10 million EUR).
Annex 6: Indicative breakdown of expenditure by category of intervention

**CODES FOR THE PRIORITY THEME DIMENSION**

<table>
<thead>
<tr>
<th>Code</th>
<th>Priority theme</th>
<th>EU contribution (EUR)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Transport</strong></td>
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</tr>
<tr>
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<td>Railways</td>
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<tr>
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<td>Motorways (TEN-T)</td>
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<tr>
<td>23</td>
<td>Regional / local roads</td>
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<tr>
<td>25</td>
<td>Urban transport</td>
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<td>Airports</td>
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<tr>
<td>30</td>
<td>Ports</td>
<td>2.129.217,00</td>
</tr>
<tr>
<td>32</td>
<td>Inland waterways (TEN-T)</td>
<td>3.206.198,00</td>
</tr>
</tbody>
</table>

|      | **Technical assistance**                 |                       |
| 85   | Preparation, implementation, monitoring  | 5.931.262,00          |
|      | and inspection                           |                       |
| 86   | Evaluation and studies; information      | 1.955.065,00          |
|      | and communication                        |                       |

**CODES FOR THE FORM OF FINANCE DIMENSION**

<table>
<thead>
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<th>Code</th>
<th>Form of finance</th>
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<tbody>
<tr>
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</table>

**CODES FOR THE TERRITORIAL DIMENSION**

<table>
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<th>Code</th>
<th>Territory type</th>
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<tbody>
<tr>
<td>00</td>
<td>N/A</td>
<td>236.983.305,00</td>
</tr>
</tbody>
</table>
Modernisation or investment in public rail and inland waterways transport infrastructure as envisaged in this Operational Programme most of the time do not constitute, state aid. However, when public funds are invested in activities that distort competition state aid is present. Also, revenue generating projects i.e. operations involving an investment in infrastructure the use of which is subject to charges borne directly by users, constitute state aid. If the infrastructure provided is offered openly on an equal and non-discriminatory basis (for example in a tender procedure, or by licensing it) to any entity performing economic activities, there is no state aid involved.

Railway lines and security improvement envisaged in TOP fall under expenditures incurred by the state in the framework of its responsibilities for planning and developing a transport system in the interests of the general public (public service obligation) and by such are not state aid.

The same can be applied for the inland waterway activities like enhancements in navigability, safety, traffic control and similar. When inland ports are in question a case by case examination is necessary. Activities related to access and maintenance, public land transport links within port area and to the external/national network and infrastructure utilities up to the terminal site are not considered state aid.

The legal basis for granting aid is art. 107.3 and 93 of TFEU. Any public support under this programme must comply with the procedural and material State aid rules applicable at the point of time when the public support is granted. It is the responsibility of the managing authorities to ensure that this condition is fulfilled.7

According to State aid No SA.38168 (2014/N), ex. SA.37108 (PN/2013) - Croatia, Dubrovnik Airport Development, the Commission has decided to consider that the acquisition of land, the modernisation of infrastructure and other measures notified by the Croatian authorities to be financed through public funding amounting to EUR 145 million, constitute aid compatible with the internal market on the basis of Article 107 (3) (c) of the TFEU and not to raise objection against it.

Consult also the Guidance note to the COCOF - Verification of compliance with state aid rules in infrastructure cases (COCOF_12-0059-01) and Infrastructure Analitical Grid (Ref. Ares(2012)989320 - 22/08/2012).

7 Vademecum: Community law on state aid, DG Competition, http://ec.europa.eu/competition/state_aid/studies_reports/studies_reports.cfm
Annex 8: Financial Flows

Croatian National Bank
- Single account of the State Treasury
- ERDF account
- ESF account
- Cohesion Fund account

Transfer of funds

European Commission
- Bank payment order to transfer EU structural assistance and national co-financing
- Supporting documents

State Treasury of the Ministry of Finance
- Request for payment to the State Treasury
- Information about transfer of funds

Responsible ministries – intermediate bodies 1
- Expenditure verification report for transfer of funds
- Information about transfer of funds

Implementing agencies – intermediate bodies 2
- Payment application, supporting documents

Beneficiaries

Applications for payment to EC
- Supporting documents

Certiﬁying Authority National Fund Department of the Ministry of Finance
- Information about payments received from EC
- Information about submitted payment declarations

Managing Authority (Operational Programme)
- Instructions for implementation of delegated tasks to verify expenditures
- Statement of expenditure

Audit institution
- Information about audits carried out

Coordinating Body
- Information flow
- Transfer of funds