



European Union  
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# **OPTITRANS**

## **CITY OF ZADAR PEER REVIEW**

### **14-16 MAY 2019**

# **REPORT**

Version 2  
Date: 30 Dic 2019

## Peer reviews

*Each region/country will be peer reviewed by a small group of other regions/countries*

- *Who: 4-5 persons representing different partner territories (OptiTrans project managers and external stakeholders)*
- *Preparatory half-day training in Berlin (4<sup>th</sup> September 2018)*
- *Before the visit:*
  - *team members get to know each other and exchange via Skype or similar*
  - *baseline study provided by reviewed partner as starting point*
- *During the visit...*
  - *arrival day dinner with local project manager and selected stakeholders*
  - *interviews and small workshops with local stakeholders (minimum: researcher, business representative, public authority representative) and those responsible for the implementation (management) of the selected policy*
  - *review team may split up to cover more*
  - *final day: public presentation and discussion of peer review findings*
- *After the visit:*
  - *team review members elaborate a joint report summarising the review*
  - *production of recommendations for the reviewed territory/partner*

- *side effects include better knowledge about another partner territory's good practices and challenges – and possibilities to transfer successful approaches*



*Following the peer review visit, a comprehensive written report should summarize the review's implementation, describe the learning effects of the participants and give recommendations to the policy actors of the visited and reviewed territory. The report is elaborated under the responsibility of the peer review team leader, usually a member of the OptiTrans project team, with all other peer review team members as well as the project manager of the local partner in the reviewed territory contributing. Those having participated in peer review visits will brief the local project manager and their own Stakeholder Support Group about their findings abroad to share their learning. The report is drafted in English language and must be available at the latest four weeks following the peer review. Its length should be around 10 pages (content, without index, open page, etc.) and photos and presentations used during the visit should be added as an appendix.*

## A Peer review overview

### A.1 Peer review team

Brief presentation of the peer review team members:

 <p>OptiTrans Interreg Europe</p> <p>proyecto OptiTrans políticas que desc bilidad de las emis carbón en zonas suburbanas por me omoción del transporte movilidad sostenible en olitrans</p>	<p><b>Gonzalo Esteban López</b> <b>OptiTrans technical project responsible for Granada (Spain) Partner</b></p> <p>Educational background as Physician, Astrophysics. Previous experience as private consultant, and working in the Energy Agency of Granada as Sustainable Energy Expert for the last 14 years on projects related to energy audits, renewable energy installation promotion, sustainable transport studies, sustainable urban development plans, active mobility, efficient public lighting, detection of renewable energies resources, etc.; supporting municipalities to realize the aforementioned tasks.</p>
	<p><b>Fernando Copado García</b> <b>Interreg OptiTrans Stakeholder.</b></p> <p>Head of department of Building and Urban Integration of Public Ports Agency of the Andalusia Regional Government.</p> <p>Educational background as Architect and Urban Planner. Working in the Agency since 2007, as part of the Port Development Area and technical assistance to the Regional Government in landscape and sustainable transport studies.</p> <p>Responsible for the technical managing of sustainable mobility Research Projects carried out by different Andalusia Universities, partially financed from European funds, since 2010, some of those about fluvial transport (projects such as GUADIAMAR, MET_RIO y ESPOMAR).</p> <p>Previous experience in different architecture-offices, involved in urban development plans, and as assistant professor of the Department of Architectural Projects at University of Seville's Architecture College (2003-2006).</p>
	<p><b>Irene Sigismondi</b> <b>Abruzzo Region (Italy) Partner</b> <b>Member of External Expert project team</b></p> <p>Educational background in law and information technology, she combines her professional experience as attorney at law and management consultant, with research and teaching collaborations with academic institutions. She is currently working as external expert for Regione Abruzzo (Italy) Project Team and participates to this Peer review together with two other Colleagues: <b>Fabio Ruggeri</b> and <b>Lorenzo Rossi</b> that were delegated to participate to the on-the-spot activities on behalf of Partner Regione Abruzzo.</p> <p>Contact email: <a href="mailto:optitrans.abruzzo@gmail.com">optitrans.abruzzo@gmail.com</a></p>

	<p><b>Sotiris Serdenis, Region of Thessaly (GREECE). Member of External Expert project team</b></p> <p>Management Consultant of EU co-funded and national projects for various local, regional and national public authorities. Educational background Economist/ MSc Management Information Systems. Email: <a href="mailto:sotiser@gmail.com">sotiser@gmail.com</a></p>
	<p><b>Giorgos Gorgogetas, e-Trikala S.A. Stakeholder of the OptiTrans project</b></p> <p>Educational background Electrical &amp; Computer Engineer specialized in the field of Telecommunications. Previous experience in private sector as ICT specialist and as a teacher in Computer Science.</p> <p>Since 2008 working in Research And Development Department of e-Trikala S.A (development agency of Trikala Municipality). He has participated in various national and EU projects in the fields of e-government, e-health, web services and lately focusing on mobility and transportation projects such as CityMobil2, Cities-4-People and ELVITEN. Email: <a href="mailto:ggorgogetas@e-trikala.gr">ggorgogetas@e-trikala.gr</a></p>

### A.2 Peer review implementation

Annexed to this document information about the Official Agenda and the “Feedback Form for Peers” will provide clear information and evaluation of the activities carried out during the peer review visit.

## **Background**

The City of Zadar is located in the centre of Zadarska županija (County of Zadar), it counts 170,017 inhabitants, and it is the administrative, economic, cultural and political centre of Northern Dalmatia with an average age of around 42 (according to available 2011 population data). It is ranking 8<sup>th</sup> for GNP in Croatia, and the priority sectors for investment in the area are: fishery, agriculture, metal processing industry and mainly tourism.

Therefore Public Transportation is an essential factor to foster economic development of the area, which after 2013-14 has started overcoming a difficult period of great unemployment rate.

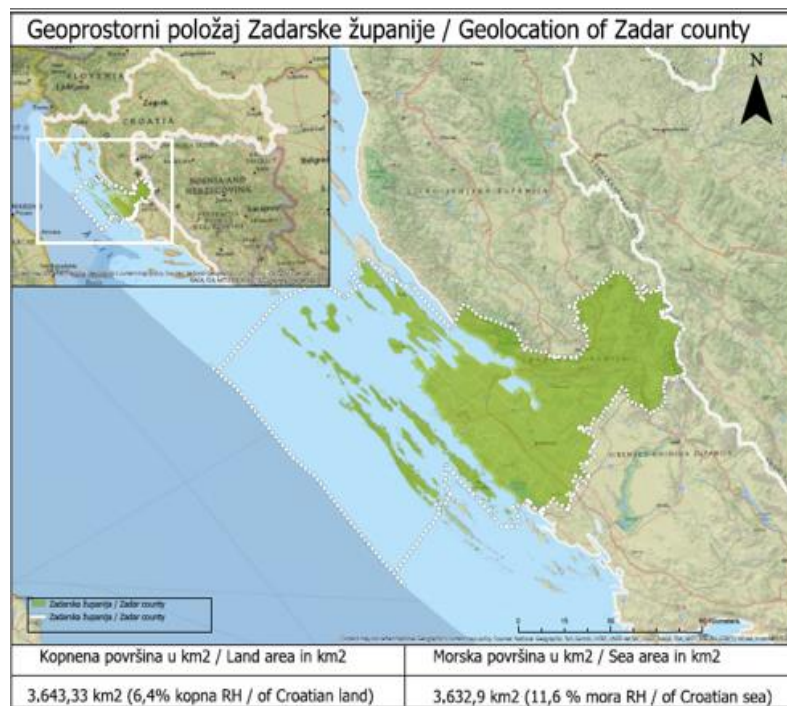


Fig. 1 – Zadar County geolocation (source: Zadar masterplan ppt provided during Peer Review)

## B Characteristics of Public Transport Policies for Green Mobility in rural areas

The City of Zadar is in a crucial position and it has a rather capillary road infrastructure with state roads all asphalted and equipped. There are also unpaved roads so-called “macadamia” consisting of 48.60 km of county and 181.97 km of local roads. Zadar can take advantage of the newly constructed passenger port Gaženica with its infrastructure of internal roads and highway connection, terminal, bus station, and gully gates up to 15 meters.

The administrative configuration of the Municipality of Zadar consists of 15 districts with 75,062 inhabitants, of which 71,471 are in the City area.

Public transport is not integrated in Croatia, nor it is in Zadar County: there are road networks for private car use, buses, railways are not sufficiently developed and reliable and in the city of Zadar it is still possible to find traditional city carriers or barkarjoli, that however cannot be considered as part of a regular, public transport network.


Concerning rural areas, although the geographic position of Zadar and the endowment of transport infrastructures is well configured, making Zadar one of the best transport-connected cities in Croatia, also critical to the connection with State transport corridor and islands area, this does not achieve a satisfactory standard, mainly because of the lack of a unified system which undermines the potential efficiency of the network.

Regarding mobility demand issues, there is strong demand for mobility connected to touristic flows due to the strategic position on the Adriatic sea, especially during summer season, which makes the network suffer from overloads and high congestion during peak times.

In the internal area of the Zadar County, there are mainly road connections, whilst the state of the art of the railway network at the present time is mainly unused even if it would still have the potential to reach several destinations through existing infrastructures: below in the box there is a synthesis of information acquired during Peer Review visit.

**Railway network details:**

- Croatian Railways canceled all train transportation in Zadar, mostly due to safety reasons
- Today from Zadar towards Knin the service is operated by bus instead of train
- Project on the modernization of the Knin - Split railway (co-funded by EU Operational Program Competitiveness and Cohesion Fund from the Cohesion Fund ([www.strukturnifondovi.hr](http://www.strukturnifondovi.hr)))
- At the moment the public procurement procedure for drafting a preliminary project is ongoing



*Fig. 2 – Zadar County railway network (source: HŽ Hrvatske Željeznice/Croatian Railways ppt provided during Peer Review)*

Zadar Municipality is not particularly sensitive to environmental transport services, allowing access with private cars that provokes congestion and high level of CO2 emission especially during peak season, public taxi service providers is of 66 vehicles and there are still not many measures to limit private car transit such as P&R (Park and Ride) or incentives to alternative modes like bike sharing or ride-sharing.

## C Good practices

During the Peer Review there was a session of presenting projects related to OptiTrans goals. Zadar County development agency (ZADRA NOVA) presented a cross section of Mobility projects in Zadar (projects in implementation) such as: FirSt and last Mile Inter-modal mobility in congested urban areas of Adriatic Region – SMILE (Adriatic Programme); MOBILITAS – MOBility for nearLy-zero CO2 in medITerranean tourism destinAtionS (Interreg Med); CHESTNUT – CompreHensive Elaboration of Strategic plaNs for sustainable Urban Trasport (Interreg Danube 2014-2020); SMART COMMUTING (Interreg Central Europe); Pilot project with electrical scooters in Zadar - MY RIDE.

Other presented project related to transport issues were: *CityMobilNet* has the aim of highlighting the growing transport problems of urban areas and to develop an adequate sustainable mobility plan (SUMP) that would meet the needs of urban residents for mobility and ensure a better quality of life; *eGUTS – Electric, electronic and green urban transport system* intends to set up charging stations for electric vehicles and procuring electric bikes; *LOCATIONS – Low carbon transport in cruise destination cities*: the project focuses on the impacts of cruise tourism by supporting local authorities in developing low-carbon mobility plans. *Zadar Urban Mobility 4.0 (ZUM)* is a project the City of Zadar is implementing to promote intelligent mobility and reduce carbon dioxide emissions.

Among good practices, the City of Zadar had proposed the *Master Plan of Sustainable Mobility of the Zadar Region* endeavoured to improve sustainability of public transport activity and to give a better coordination of the effort towards efficiency and sustainability goals in public transport. This Plan is actually part of a bigger Plan presented during Peer Review, which is going to be explained in the next paragraph.

## D Policy context

In the past few years after 2014, the area of Zadar has started to consider policy making oriented to sustainable transport by preparing the **Mobility Master Plan of the Functional Region Northern Dalmatia and Strategic Environmental Impact Assessment**. This document was scheduled to be approved and adopted in summer of 2019.

- The Mobility Master Plan of the Functional Region of North Dalmatia represents the fundamental strategic document of long-term traffic development in Zadar and Zadar County, to define future traffic interventions and traffic infrastructure.
- It intends to enable the planning of an efficient and sustainable transport system in accordance with European and national strategies and plans.
- As the national transport strategy defines targets and measures at the national level, the Mobility Master Plan, while respecting the national strategy, defines goals and measures at the regional level. The Master Plan at regional level includes road, rail, maritime, air and public transport.



- It has been developed through research and data collection processes, development of a traffic model, definition of goals and definition of measures for their achievement and its verification through the Strategic Environmental Impact Assessment.
- It has 4 specific goals: improving accessibility and availability; improving the quality of public transport; optimising traffic in Zadar County; improving infrastructure; increasing financial sustainability of the transport system.

The goals are achieved through threefold actions:

*Infrastructure interventions :*

***CONSTRUCTION OF BICYCLE INFRASTRUCTURE***

- Properly built bicycle infrastructure will ensure the cyclist's safe movement.
- Existing cycling paths need to be aligned with the Bicycle Infrastructure Regulations and build new ones.
- Along the bicycle paths, it is necessary to build appropriate bicycle stands ("clamshells").
- Bicycle traffic should preferably be separated from motor traffic by wide green belts.
- The construction of cycling infrastructure should monitor the needs of the local population, as well as the morphology of the terrain and the usual movements of tourists during the season.
- Planning the bicycle infrastructure should follow the Euro Velo 8 route and provide ancillary connections to the same.
- It is necessary to create a unified map of cycling trails in the county.

***IMPROVE PARK & RIDE SYSTEM***

- The Park & Ride system represents the expansion of the public transport system.
- Construction of a parking lot is practiced at a station outside the city center
- It leads to a larger modal share for public transport, which is directly linked to the number of cars on the city streets.
- It can reduce the daily traffic of passenger cars and increase the use of public transport.
- Reducing the number of cars in the streets controls CO2 emissions, increasing the efficiency of the traffic system and the accessibility of all urban areas.

***DEVELOPMENT OF A STUDY OF TRAFFIC REGULATION IN SEASON***

- Given the high seasonality of a large part of the area covered by this Mobility Master Plan, it is necessary to create a quality and customizable study of seasonal traffic regulation, with all the usual scenarios occurring during the season, all as a basis for further integration of traffic management through modern forms of control and the ability to adapt in real time.

***IMPLEMENTATION OF SMALL TRAFFIC AREA AND SHARED SPACE ZONES IN CITY AND TOURIST ZONES***

- Strict traffic separation - significant increase in traffic safety and increased mobility, primarily pedestrians and cyclists,

- Sometimes it is simply impossible to perform because of spatial constraints or seasonal demand.
- Peaceful traffic zones, as well as a shared space zone in old parts of cities, smaller places, or tourist centers, can be the optimal solution, especially if their regulation changes over time, adapting to the real needs of the local population and tourists.

***DEFINITION OF INTERMODAL TERMINALS, POINTS OF INTEGRATION AND STATIONS IN PUBLIC TRANSPORT SYSTEM***

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***DEVELOPMENT OF THE FEASIBILITY STUDY FOR CONSTRUCTION OF STATE AND OTHER TRAFFIC ROADS AROUND THE LARGEST AND MOST TOURISTIC AREAS IN THE MARITIME ZONE***

- Apart from the significant need for the construction of the Zadar city highway bypass, the documentation should also define the need for the construction of bypasses of several smaller and larger coastal settlements, primarily tourist-active, in order to relieve the already congested coastal roads.
- The reasons for this study are primarily to increase the security of traffic by reducing the share of transit traffic in settlements and increasing the attractiveness of individual parts of the county.
- Through this measure, it is necessary to consider the project of the construction of a new state road on Ugljan with a connection to the Ždrelac and Pašman islands.

*Organisational Measures:*

***INTRODUCTION TO "CAR SHARING" SYSTEM***

- Car sharing system is a public car system integrated into the public transport system.
- The introduction of the system is carried out in order to increase the mobility within the city in a sustainable and environmentally acceptable manner.
- The system can be established as a city-based company or can be given a concession for it.
- This measure will result in a reduced number of vehicles within the city, in increasing the mobility of the population, respecting ecological eligibility and sustainability.

***IMPLEMENTING PUBLIC TRANSPORT SERVICES ON REQUEST***

- In areas where the introduction of a conventional freight line is not possible due to insufficient transport demand (smaller settlements), a "on demand" service is established.
- The service enables the connection of smaller settlements to the public transport system and is integrated with the rest of the public transport system.

- This measure should contribute to increasing the commercial speed of public transport in order to direct the user choice more and more towards the option of using public transport.

#### ***INTRODUCTION OF THE COMMON TARIFF SYSTEM***

- The introduction of a common tariff system enables the use of all modes of transport included in the IPP system (rail, bus, car sharing system, public bicycle systems etc.) with a common tariff and a transport ticket.
- The common tariff system makes it easy to use public transport, increasing its popularity resulting in reduced car usage, and thus reducing traffic jams.

#### ***THE FUTURE DEVELOPMENT OF PUBLIC BICYCLE SYSTEMS***

- Bicycles in this system are available to everyone throughout the day and the user can leave a bicycle on any terminal in the city.
- The system will provide an excellent alternative to the car at short distances (5-7km), which reduces motorized traffic in the cities.
- The public bicycle system should have a well-developed terminal network so that it can use as many users as possible.

#### *Management Measures:*

#### ***ENSURING CONTINUED DATA COLLECTION OF MOBILITY AND SYSTEM FUNCTION***

- The need for continuous collection of traffic data along with a regular data collection plan.
- It is necessary to define which stakeholders collect the type of traffic data, how and how often.

#### ***DEVELOPING OF SUSTAINABLE URBAN MOBILITY PLAN (SUMP)***

- Sustainable Urban Mobility Plans want to achieve greater energy, economic efficiency and the level of safety and environmental protection by increasing the share of public transport, pedestrians and cyclists in the modal distribution of the use of various modes of transport.
- The aim is to determine the possibilities of implementing innovative technological and spatial solutions such as Park & Ride systems, car sharing systems, shared space zones etc.

## **E Interviews field trip**

During the course of the activities, the team visited the main local transport hotspots, highlighting their critical issues and possible solutions.

After Project presentations and Good Practices, as already mentioned in the previous paragraph, during the morning session, the afternoon of the first day was dedicated to test first hand some experimental projects: *Nextbike* public bike sharing system locations; *My Ride* electrical scooters locations; *City Bus Zadar*, Application Trial.

The most important interview was with the Region’s Public Transport Company, which is also the bus service provider held on the second day. Bus services takes place through city, suburban and island transport. Public transport is characterized by the modernization process of the bus fleet, with new investments incoming. Liburnija is the Public transport company in Zadar and Zadar county and it deals with city and suburban public transport, maintenance and repair of motor vehicles , technical examination and analysis, bus station services, organizing and conducting tourist trips in the country and abroad.

The Company representatives illustrated to the partners its future plans to strengthen connections with suburban areas and encourage the use of public transport by all citizens, providing data on network, fleet, age structure for suburban buses, bus structure according to euro norms, bus stations, operated by the Company and public transport service standards. Liburnija Company got the exclusive right to offer public service in transport within the Municipality of Zadar and surrounding 18 ones from 2018 to 2027, based on previously arranged routes and lines and concluded a Public service obligation contract as a precondition to receiving EU funds.

According to EU directive no. 1370/2009, obligations for the Company include to offer public service in transport in municipalities within the contract; to transport passengers at the prices regulated by a valid pricelist; and to cooperate with the municipalities to enhance public services in transport. On the other hand, the Municipalities are obliged to ensure the financial means for public service operation; to approve the local line network proposed by the Company; to ensure and invest in traffic and network infrastructure, and to finance investment activities in the Company, within contract conditions.

In the City of Zadar, at present, the service is provided as follows:	In the suburban area:
<ul style="list-style-type: none"> <li>– <b>11 bus lines</b></li> <li>– <b>Operates from 5:00 to 24:00</b> (during the summer season 5:00-2:00)</li> <li>– <b>Every 20 or 40min</b></li> <li>– <b>4000 km/day</b></li> <li>– <b>20 buses</b></li> <li>– <b>43 drivers</b></li> <li>– <b>420-450 departures (seasonal, school holidays)</b></li> </ul>	<ul style="list-style-type: none"> <li>– Organised in Zadar county</li> <li>– Including the islands of Ugljan, Pašman, Dugi Otok i Iž</li> <li>– 27 lines</li> <li>– 10 000 km/day</li> <li>– 40 buses</li> <li>– 50 drivers</li> <li>– 200 departures on work days</li> <li>– 100 departures on Saturday</li> <li>– 50 departures on Sunday</li> </ul>

*Table 1.* types of services in the City and in the suburban area (Source: ppt provided by Liburnija Company)

Information on prices, ticketing, other services by the Company and financial data on subsidies were also presented.

## **F Recommendations**

Zadar Peer Review experience is very interesting because it represents a peculiar situation of a city that corresponds to a vibrant heart of touristic flows, but it does not offer a public transport service adequate to the demand. Moreover, no actual assessment of needs has been yet accomplished by the Municipality. This is why it is very important the decision to adopt and implement the Master Plan on sustainability, involving different action lines to promote policy changes. The main actors' ability and will to involve all stakeholders is under challenge because this is the real moment to show the capacity of introduce measures and accompany them by an effective monitoring on compliance. This aspect is particularly relevant because during the Peer Review it appeared that Policy Makers are not fully aware of the necessity of gaining legitimation by all sectors of civil society and support also at National and own regional/local level, because more resources for funding the implementation of the described activities and projects are needed.

Nevertheless, some improvements can be identified, and the following recommendations are given:

- During the peer review, peer review members got the idea that it seems that there is a lack of coordination among different levels of government-governance in terms of statements. This should be better explained and/or improved.
- It's true that we identified different activities focused on the improvement of green transport modes, mainly public transport, but there are, up to now, no measures to support private car use limitation (apart from normal parking policies in city centre). One of the policies that the city wants to implement is restricting access to city centre. Probably there are more policies in this direction, but they were not really shown during the Peer Review.
- There are no information on involvement of Intermediary Organisations as stakeholders: as mentioned above, this could be of great importance to obtain a greater momentum of proposed actions for sustainability.
- - The Peer Reviewes team did not identify good practices related to on-demand transport that could be applied to rural neighbouring areas of Zadar. This could be supported by promoting carpooling schemes for rural areas. There is strong need for the preliminary study on needs assessment that is proposed by Master Plan document.

## **G General remarks**

The meeting ended successfully and made it possible to take a further step towards defining a common methodology for public transport policies and the adoption of an action plan by each partner with the support from the entire transport community. This is in order to introduce

innovative approaches and contribute to the change of attitude and mentality with respect to public mobility.

The Peer Review Team members collected remarks about the general situation in Zadar and their impressions in Appendix 2. Here is an excerpt, schematised in a table.

Overall remarks on the presentation of the Masterplan		Bus services	Applicable mobility policies
	Focus on tourism but also on local usage of public transportation	More interinstitutional cooperation and stakeholders involvement	Promotion of public bikes, not just for tourist usage (Public Bikes 16 normal and 8 e-bikes to be planned only)
	Railway infrastructure: refurbishment or new uses proposal	Promotion of more multimodality in both bus stations with personal mobility vehicles (scooters/bikes or bus + bicycle systems)	Creating and promoting fast and frequent maritime connections between the port and the centre to reduce access with private cars, as well as proper ride-sharing services and/or bike network (distance from port to the city centre is about 3,5 km)
	Better positioning towards other ports of the area (Riejka and Pula): differentiation instead of competition	More ICT equipment and GPS services onboard	Importance of regulating the use of new scooter system in the city centre and all pedestrian areas
	Investments on bike lane connections between station and university	installing automatic counters onboard of new buses in order to improve the knowledge of this problem and with more controls could improve the companies' economy	More joint working would be needed to better analyse taxis licences and real need for services

*Table 2.* Scheme of recommendations – (Source: elaboration on Appendix 2 of the Zadar Peer Review)

## H List of bibliography

- City of Zadar Baseline Study
- OptiTrans database of Good Practices
- Presentations given within the peer review by local stakeholders

## **I Annex section**

- Agenda of peer review visit
  - Peer Review Presentation
  - Lists of participants
  - Photos taken during the peer review
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- ANNEX 1 - Feedback of Peers\_OptiTrans
  - ANNEX 2 - Checklist\_OptiTrans

## **H Figures and tables**

- Fig. 1 – Zadar County geologation (source: Zadar masterplan ppt provided during Peer Review)
- Fig. 2 – Zadar County railway network (source: HŽ Hrvatske Željeznice/Croatian Railways ppt provided during Peer Review)
- Table 1. types of services in the City and in the suburban area (Source: ppt provided by Liburnija Company)
- Table 2. Scheme of recommendations – (Source: elaboration on Appendix 2 of the Zadar Peer Review)