

WILMSE



Rail Infrastructures and Services: Connecting Europe for Cities and People

Rail4SEE - Impacts and Scenarios

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Centre for Research and Technology Hellas - Hellenic Institute of Transport



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND



CENTRAL
EUROPE
COOPERATING FOR SUCCESS.



SOUTH EAST
EUROPE
Jointly for our common future



HELLENIC INSTITUTE
OF TRANSPORT

New services at



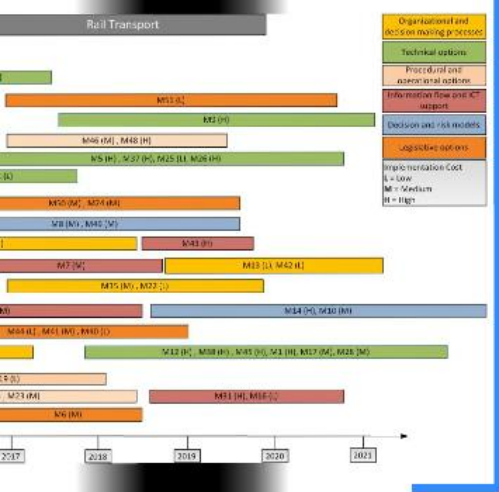
- Rail profile u familiarity
- Alternative

Information Communication Techn

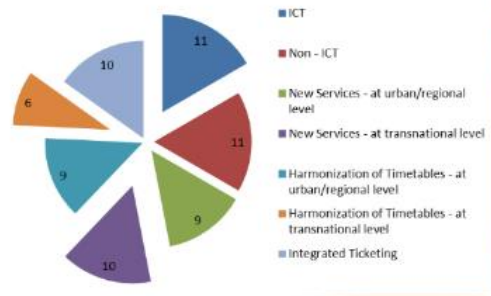


The Ra

Key Findings - The Roadmap

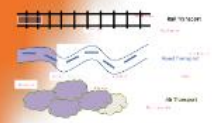


Rail4SEE - Pillars and Tools



Roundtables x 33

Surveys



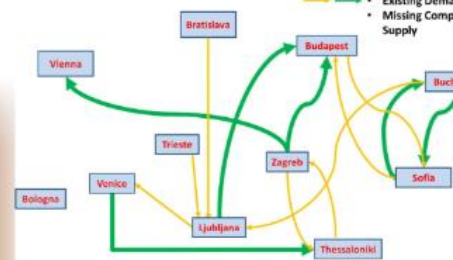
Modal Split Model

Memoranda of Understanding x 17

Transnational Studies

Position Papers x 4

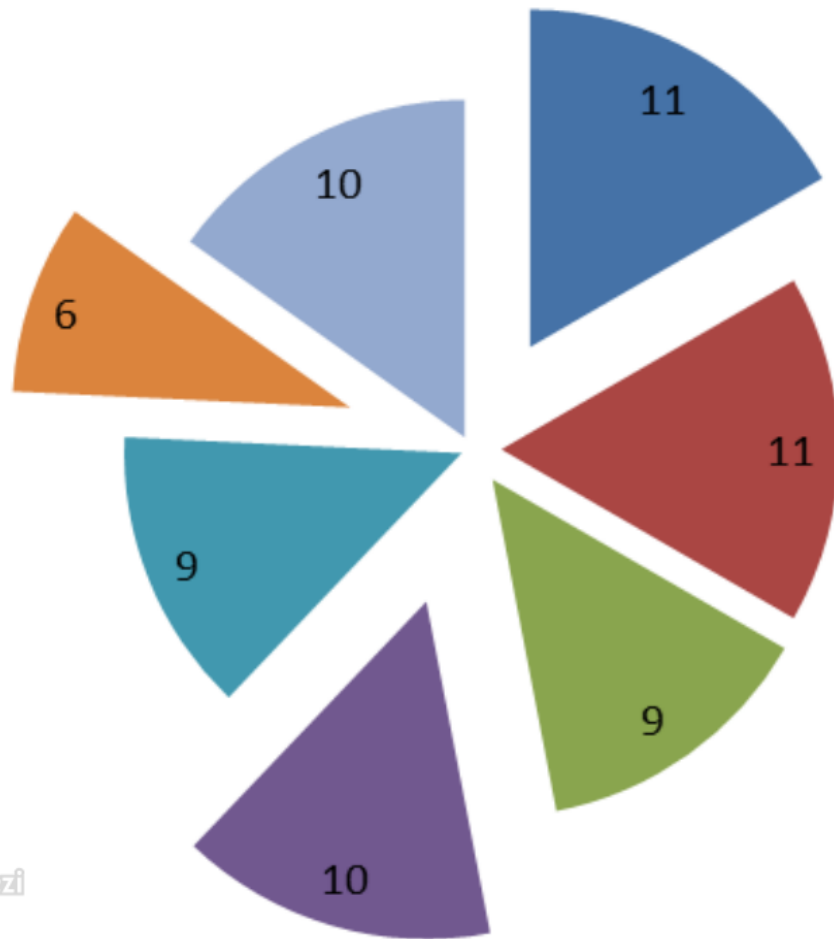
Transnational studies for prioritizing interventions



Transnational studies for prioritizing interventions



Action plans and MOUs



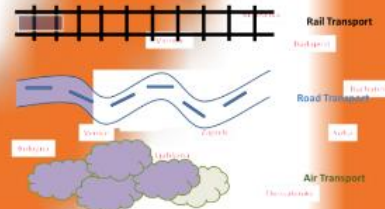
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- Integrated Ticketing

Clusters x 3



Roundtables x 33

Surveys



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Position Papers x 4

Information Communication Technologies (ICT) in Rail4SEE

Contents



- Main web information website
- Tools for optimal ICT services
- Mobile Platform
- Smart Connected Platform (SC)
- Mobile information app

Encountered Issues & Problems

- 1) Publishing standardization
- 2) Data sharing - open data
- 3) ICT contribution to rail enhancement

The Rail4SEE solutions

Single Access Point



New Governance for data ownership and user satisfaction



Contribution to rail enhancement



• Key Message:

- *Integrated information provision as "one-stop-shop"*
- *Towards an EU multi-modal google*
- *Real-time information - a cornerstone*

Harmonization

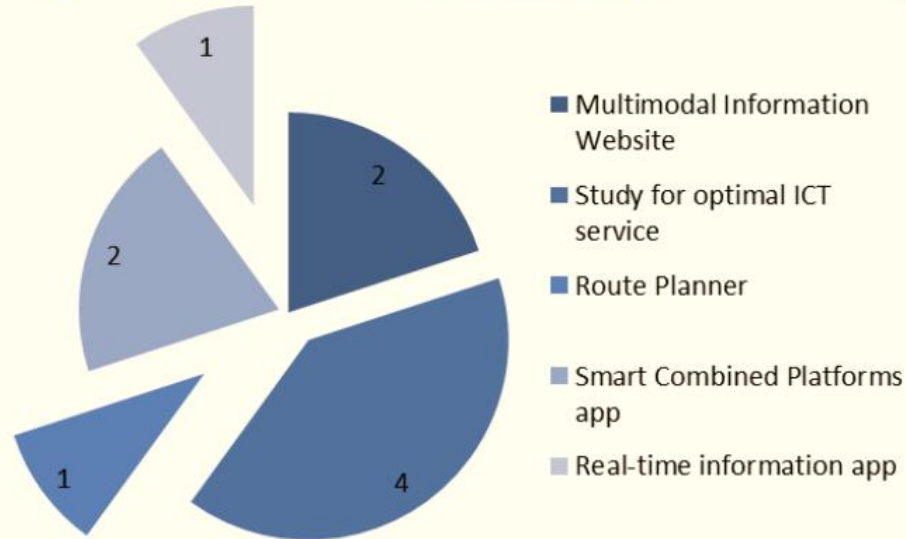
Contents



Encountered Issues & Problems

- 1) Multiple actors
- 2) Matching of regional timetables
- 3) Degree of need

Contents



Sim



Encountered Issues & Problems

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enhancement



Issues & Problems

- 1| Publishing standardization
- 2| Data sharing - open data
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Single Access Point



ISSUES & TOPICS

- 1| Publishing standardization
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- 3| ICT contribution to rail enhancement

New Governance for data ownership and user satisfaction

servizio ferroviario metropolitano bologna

Arriva la esse bolognese

HOME SFM ORARI E TARIFFE MULTIMEDIA LINK SUGGERIMENTI ENGLISH VERSION CREDITS

RAVENNA-RIMINI
RIMINI-ANCONA

NEWS

Dal 1 ottobre partono i nuovi titoli di viaggio MiMuovo

Nell'Area Urbana di Bologna dal 1 ottobre saranno disponibili nuovi titoli di viaggio per utilizzare più mezzi di trasporto con un unico biglietto.

Dal 30 settembre inizia la nuova campagna di

Prezi



NEWS

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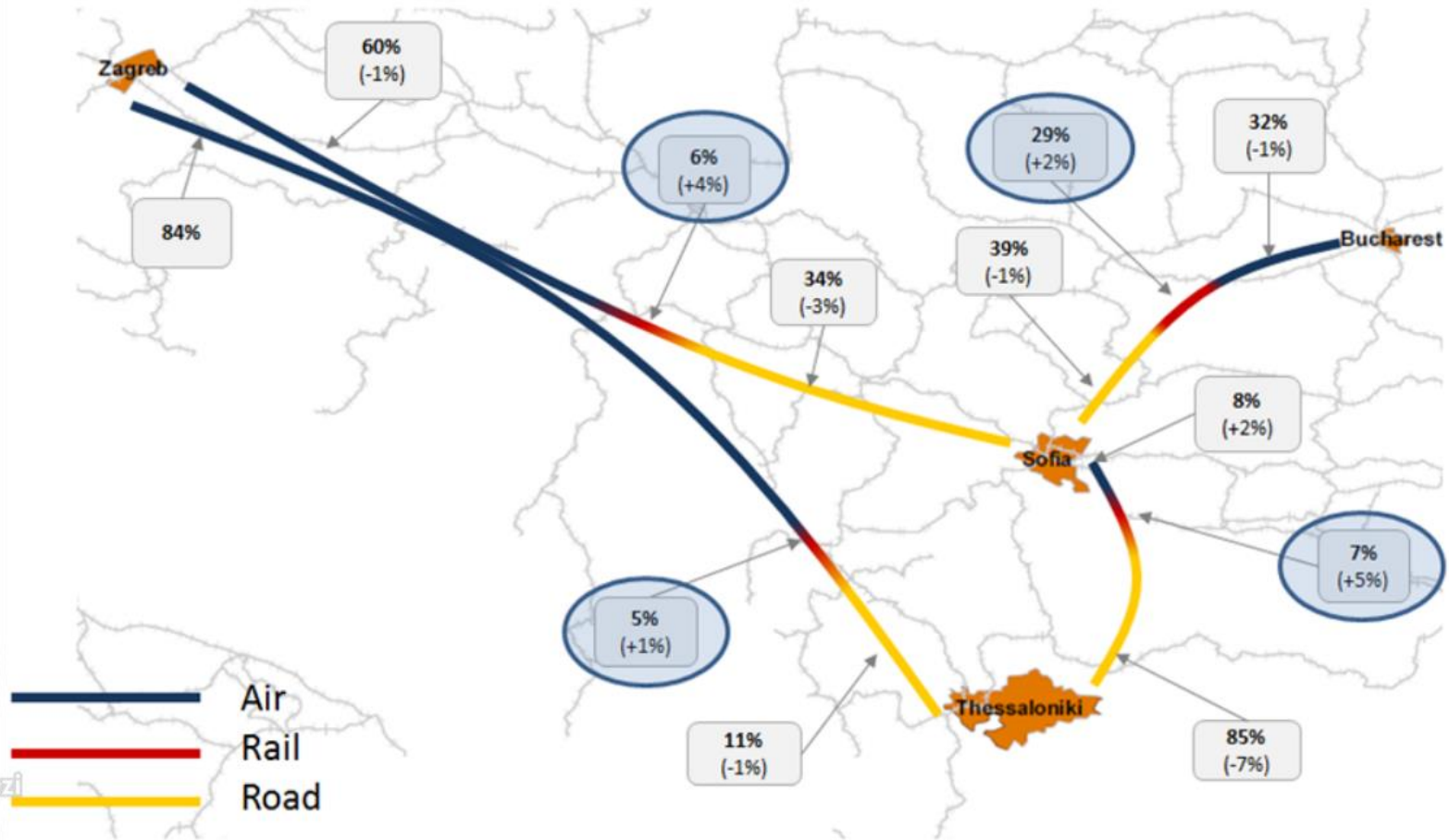
 Prezi

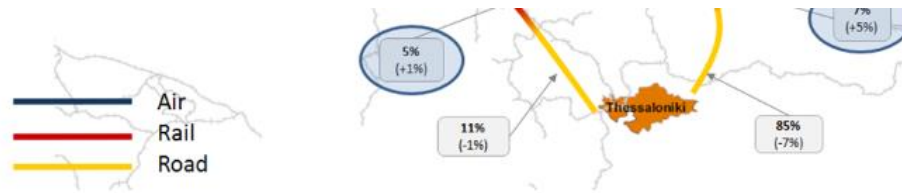
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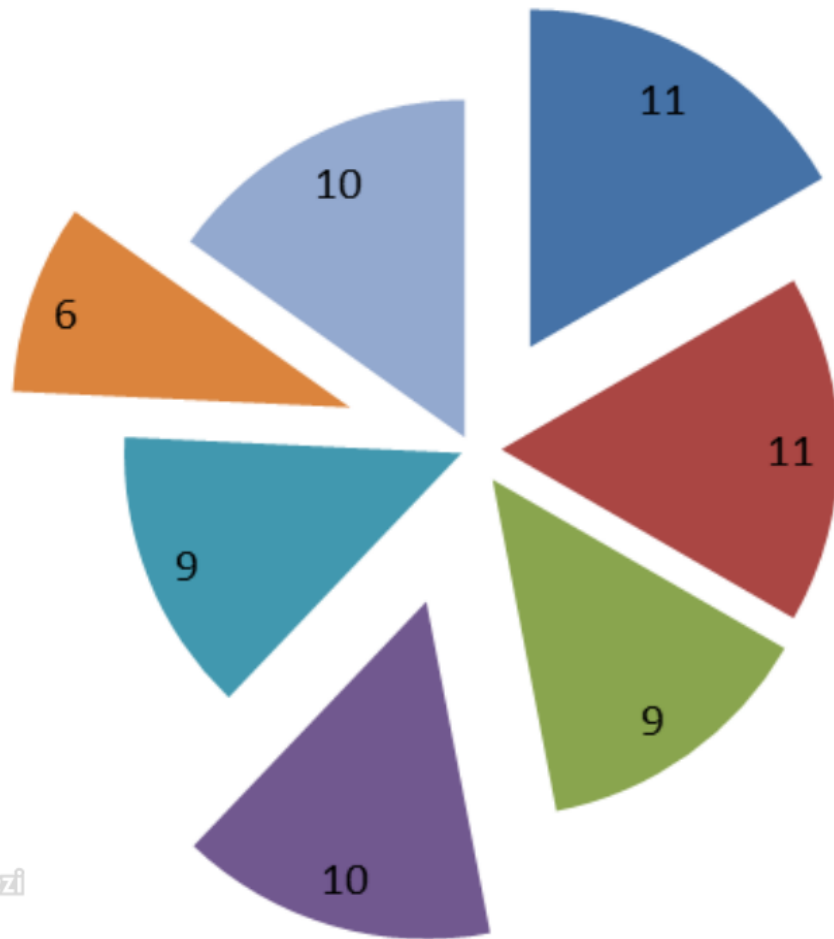
Contribution to rail enhancement





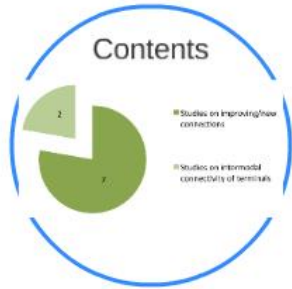
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New services at urban/regional level



- ### Encountered Issues & Problems
- 1) Complicated decision-making process
 - 2) Financing of operations and infrastructure

The Rail4SEE solutions

Stakeholders' Panel

Database of stakeholders' roles and overlaps



Funding Opportunities

| Year | Source | Amount | Priority | Comments |
|------|--------|--------|----------|----------------|
| 2014 | EU | 100M | High | Infrastructure |
| 2015 | EU | 150M | High | Infrastructure |
| 2016 | EU | 200M | High | Infrastructure |
| 2017 | EU | 250M | High | Infrastructure |
| 2018 | EU | 300M | High | Infrastructure |
| 2019 | EU | 350M | High | Infrastructure |
| 2020 | EU | 400M | High | Infrastructure |

Guidelines for legislation and guidance

| | Standards | Processes | Legislation |
|---------------------------------|-------------|-------------|-------------|
| Timetable for studies | | Timeline of | Timeline of |
| Timeline of studies for studies | Timeline of | Timeline of | Timeline of |
| Study on specific | | | |

Key Message:

- Rail profile upgraded through passengers' familiarity with metropolitan services
- Alternative thinking for new services

Contents



■ Studies on improving/new connections

■ Studies on intermodal connectivity of terminals

Data

Encountered Issues & Problems

- 1| Complicated decision-making process
- 2| Financing of operations and infrastructure

Guide

Timetab

IT and non-IT
rail & int

Gove

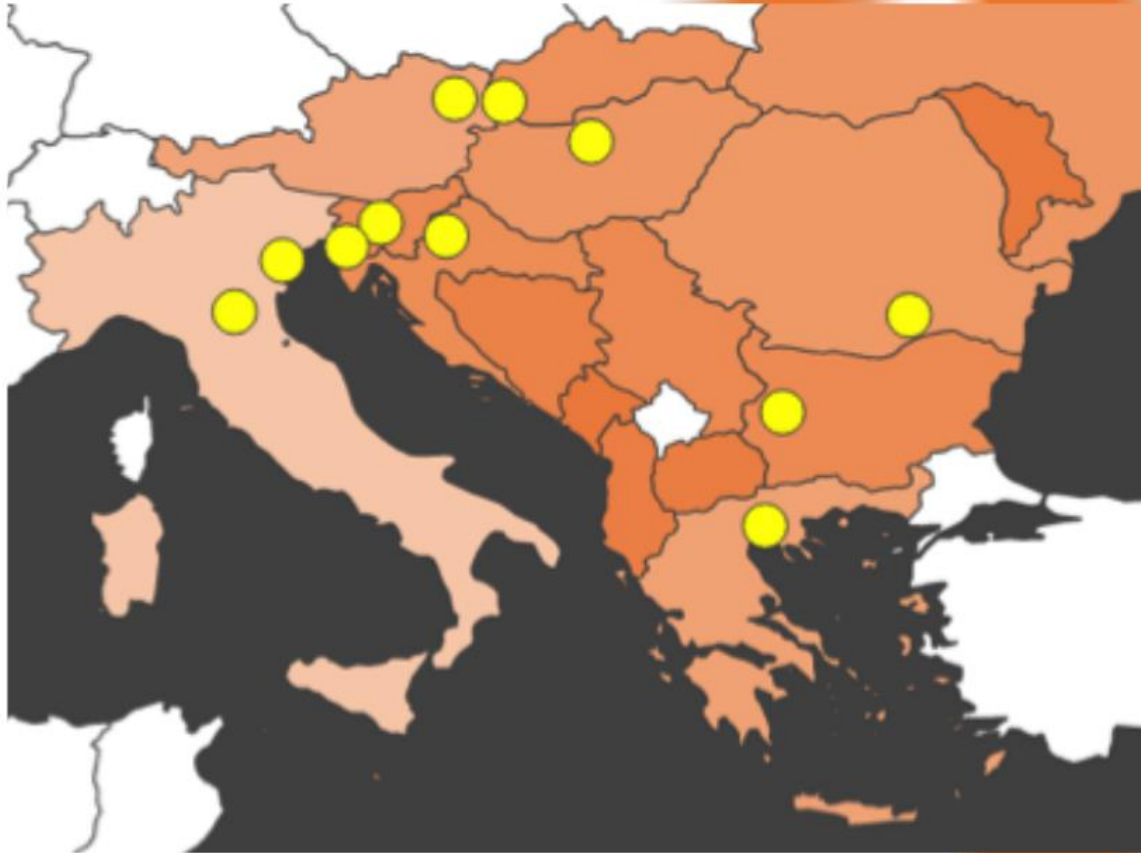
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Database of stakeholders' roles and overlaps



Integrated Transport Authorities



laps

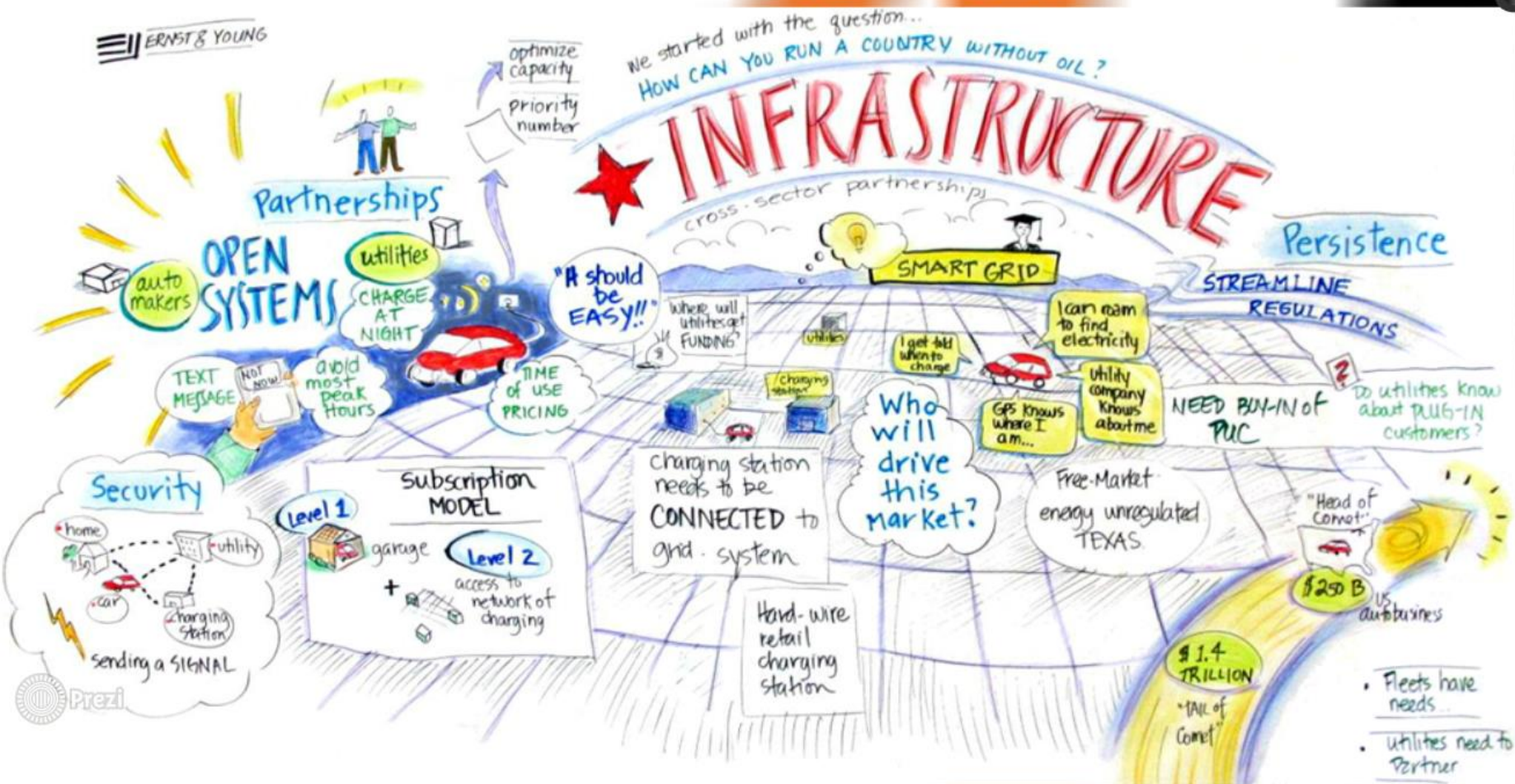


1| Complicated decision-making process

2| Financing of operations and infrastructure

Business Models benchmarking

ERNST & YOUNG



Combined Services



Guidelines for legislation and guidance

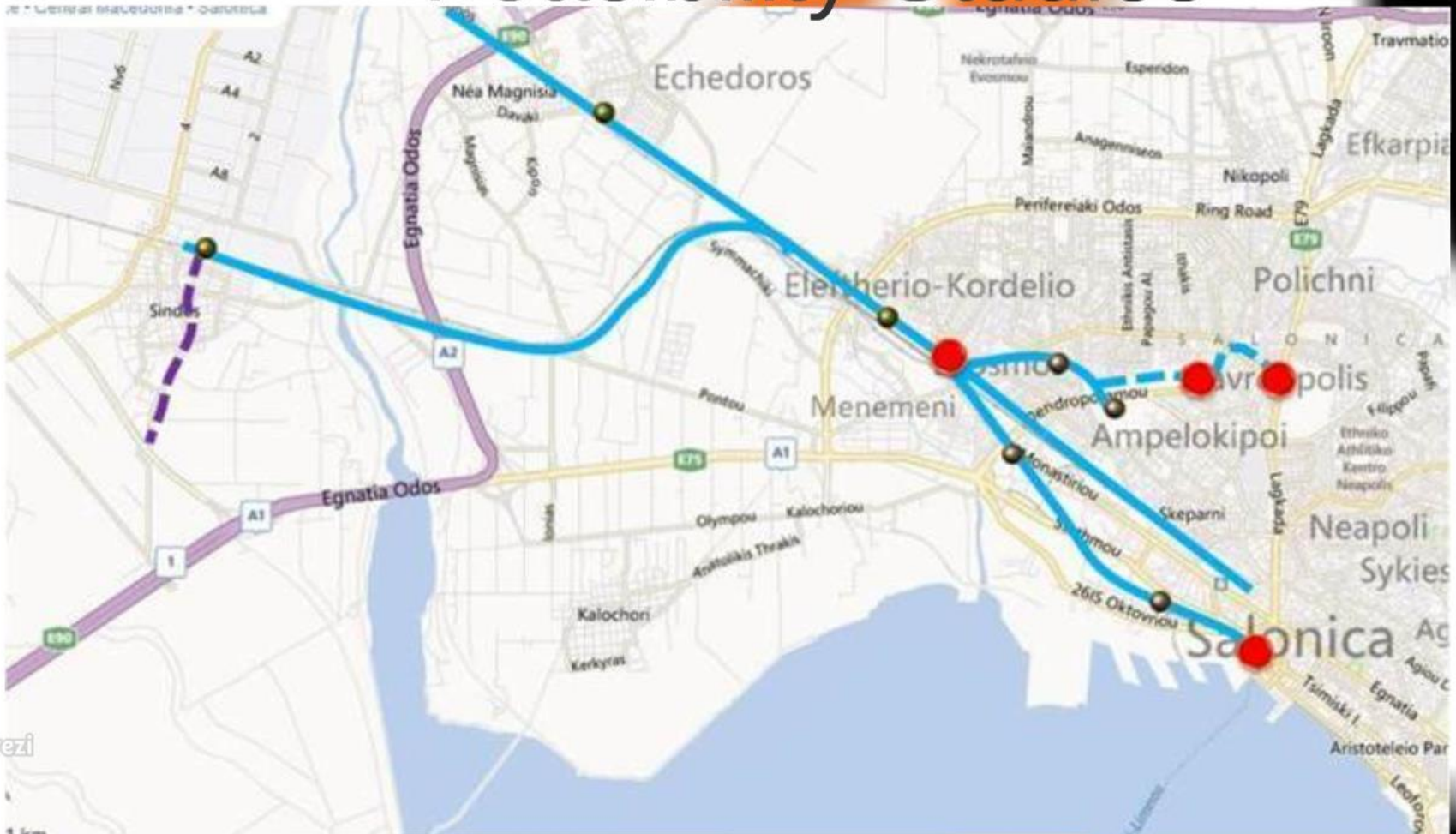
| | Standards | Processes | Legislation |
|---|--------------------------|--------------------------------------|-------------------|
| Timetables harmonization | | Feasibility of future rail transport | |
| IT and non-IT systems for access to rail & intermodal transport | Integrated ICT solutions | | |
| Governance systems | | | Combined Services |

The diagram illustrates the interdependencies between Standards, Processes, and Legislation for three key areas:

- Timetables harmonization:** This area is primarily dependent on **Processes**, specifically the **Feasibility of future rail transport**.
- IT and non-IT systems for access to rail & intermodal transport:** This area is primarily dependent on **Standards**, specifically **Integrated ICT solutions**.
- Governance systems:** This area is primarily dependent on **Legislation**, specifically **Combined Services**.

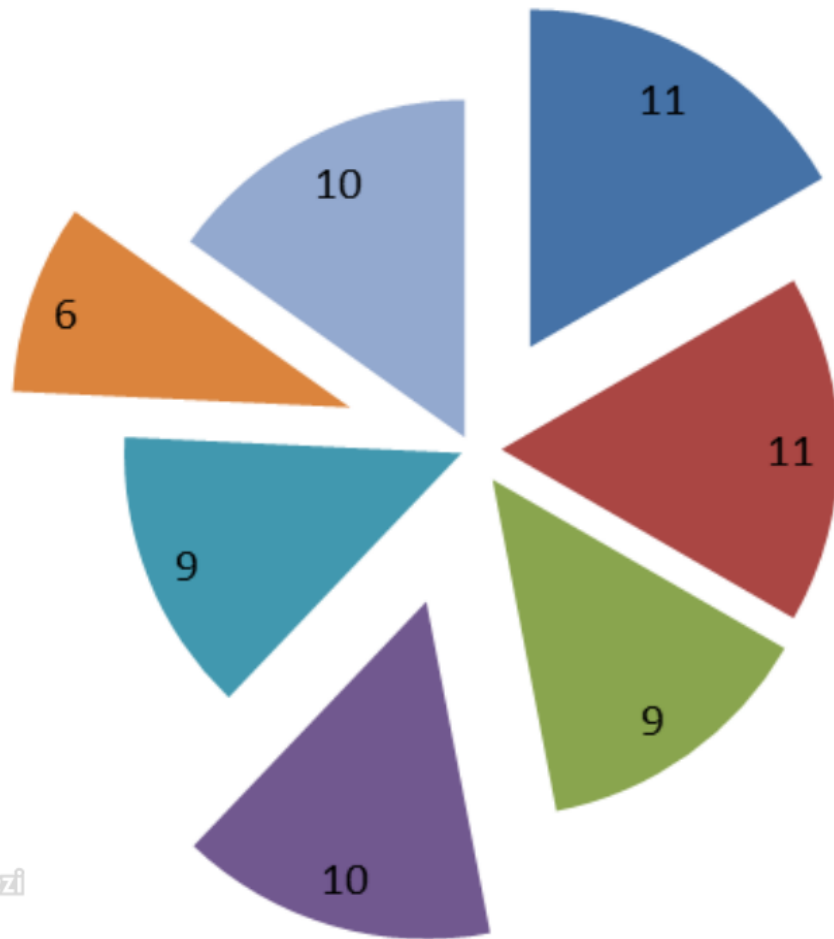
Orange arrows indicate the flow of influence: Standards influence both Processes and Legislation; Processes influence Legislation; Legislation influences both Standards and Processes. A yellow oval labeled 'Combined Services' is positioned under the Legislation column for Governance systems.

Feasibility Studies



Funding Opportunities

| Άξονας προτεραιότητας | Τύπος δείκτη | Κωδικός | Δείκτης ή κύριο στάδιο υλοποίησης | Μονάδα μέτρησης, κατά περίπτωση | Γραμείο | Κατηγορία περιφέρειας | Ορόσημο για το 2018 | Γεωκός στόχος (2023) | Πηγή στοιχείων | Επεξήγηση της σημασίας του δείκτη, κατά περίπτωση |
|-----------------------|-------------------|---------|---|---------------------------------|---------|-----------------------|---------------------|----------------------|---|--|
| 8 | Οικονομικός | O1 | Ποσό πιστοποιημένων Δαπανών | Ευρώ | ΕΤΠΑ | Λιγότερο ανεπτυγμένες | 220.000.000 | 838.196.982 | Τ.Α.Ε. Τριμηνιαία δελτία δήλωσης Προόδου Εκθέσεις Αξιολόγησης του Ε.Π. Εκθέσεις Διαχειριστικής Αρχής Εκθέσεις Μελέτες Δικαιούχων | Με τον δείκτη παρακολουθείται το ποσό των επιλέξιμων δαπανών (σε €) που εισάγεται στο ΟΠΣ και έχει πιστοποιηθεί από τη Διαχειριστική Αρχή. Ο δείκτης μετρά τις πιστοποιημένες δαπάνες κατά τη διάρκεια της Προγραμματικής Περιόδου και η τιμή του συγκρίνεται με το ορόσημο του 2018 και το στόχο του 2023, επιτρέποντας τον εντοπισμό της πιθανότητας αστοχιών στην υλοποίηση του ΑΠΣ και την έγκαιρη λήψη διορθωτικών μέτρων |
| 8 | Εκροών | E11 | Συνολικό μήκος νέων ή βελτιωμένων γραμμών Τραμ και Μετρό | χμ | ΕΤΠΑ | Λιγότερο Ανεπτυγμένες | | 14,4 | | Με τον δείκτη παρακολουθείται η πρόοδος των παρεμβάσεων του ΑΠΣ που αφορούν κατασκευή νέων ή βελτίωση υφιστάμενων γραμμών Τραμ ή Μετρό. Ο δείκτης αποτυπώνει το μήκος δικτύου (χμ) το οποίο κατασκευάζεται ή αναβαθμίζεται και συγκρίνεται με το στόχο (ελέγχεται ο αντίστοιχος δείκτης σταδίου υλοποίησης Y11), για εντοπισμό της πιθανότητας αστοχιών στην υλοποίηση του ΑΠΣ και έγκαιρη λήψη διορθωτικών μέτρων |
| 8 | Στάδιο Υλοποίησης | Y11 | Αριθμός υπογεγραμμένων συμβάσεων για κατασκευή νέων ή βελτίωση γραμμών Τραμ και Μετρό | Αριθμός | ΕΤΠΑ | Λιγότερο ανεπτυγμένες | 2 | | | Με το δείκτη παρακολουθείται η πρόοδος σύναξης των συμβάσεων που απαιτούνται για την υλοποίηση του δείκτη E11. Ο δείκτης αποτυπώνει τον αριθμό των υπογεγραμμένων συμβάσεων και συγκρίνεται με το ορόσημο για τον εντοπισμό της πιθανότητας αστοχιών στην υλοποίηση του ΑΠΣ και την έγκαιρη λήψη διορθωτικών μέτρων. |



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New services at transnational level



The Rail4SEE solutions

- Position paper on PSO competent authorities network
- PSO implementation guidelines

Clusters and Task Forces



Transnational studies for prioritizing interventions



Marketing of New Services



PSO for transnational services



Transnational studies for prioritizing interventions



Upgrading of existing organizations and training



Transnational studies for prioritizing interventions



Network of 1st level hubs



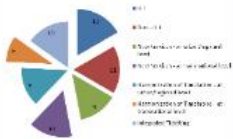
Action plans and MoU



Key Message:

PSO supported new services crucial for minimum rail connectivity in SEE

Rail4SEE - Pillars and Tools



Clusters x 3

Roundtables x 33

Surveys

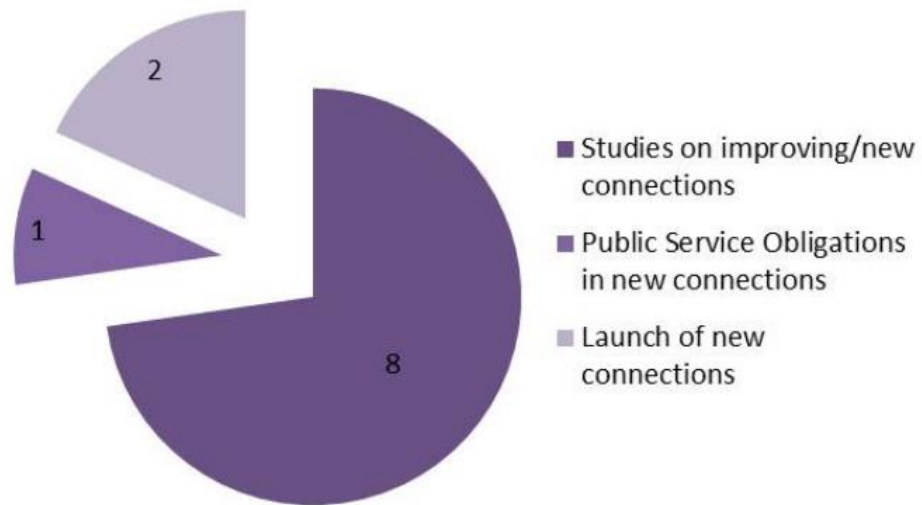
Modal Split Model

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- Public Service Obligations in new connections
- Launch of new connections

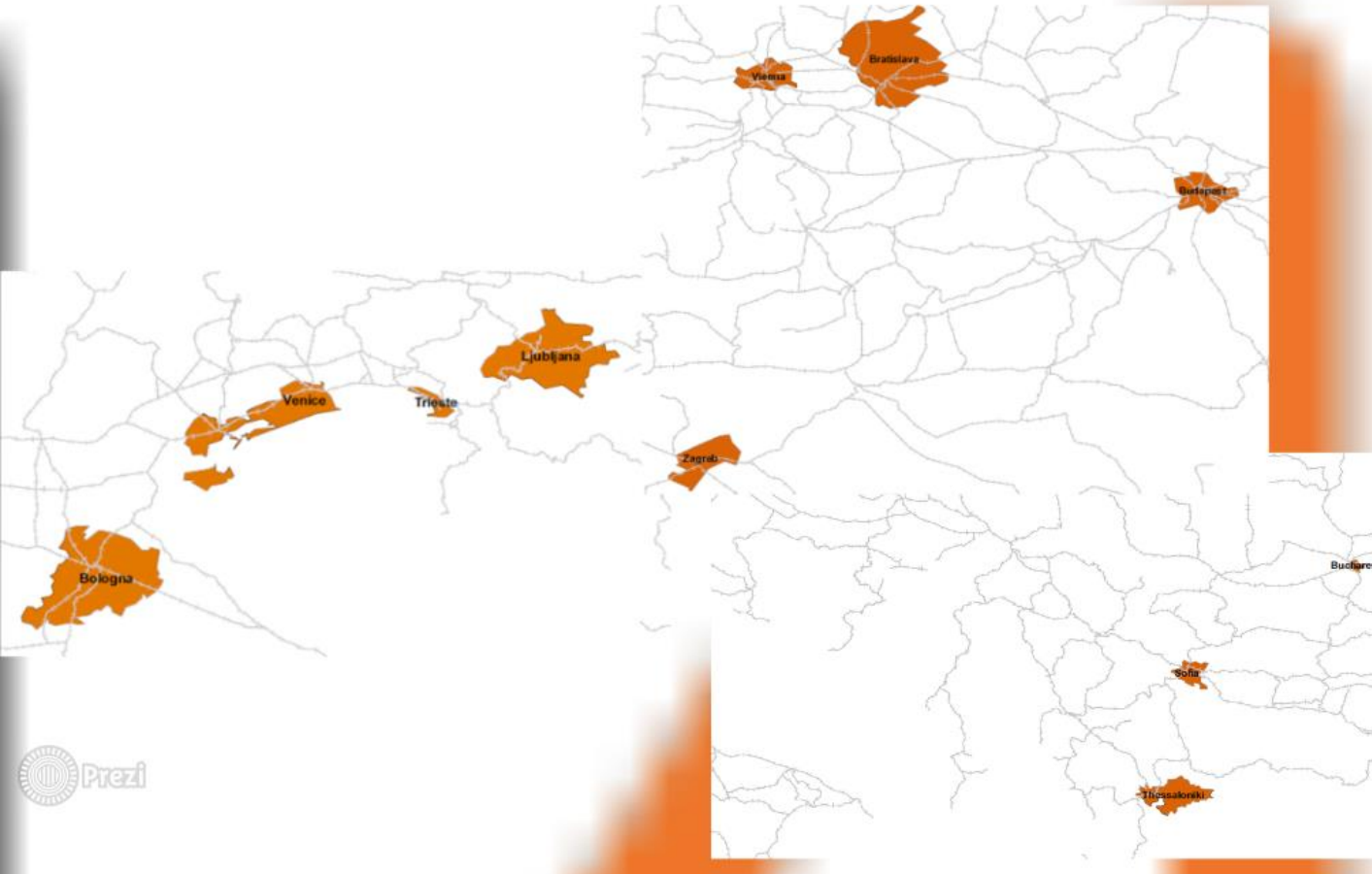
Encountered Issues & Problems

- 1| Limited cooperation of involved parties
- 2| Low market share of rail transport
- 3| Absence of competent authority cooperation
- 4| Financing of rail operations
- 5| Cost of use of infrastructure

Issues & Problems

- 1| Limited cooperation of involved parties
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Clusters and Task Forces

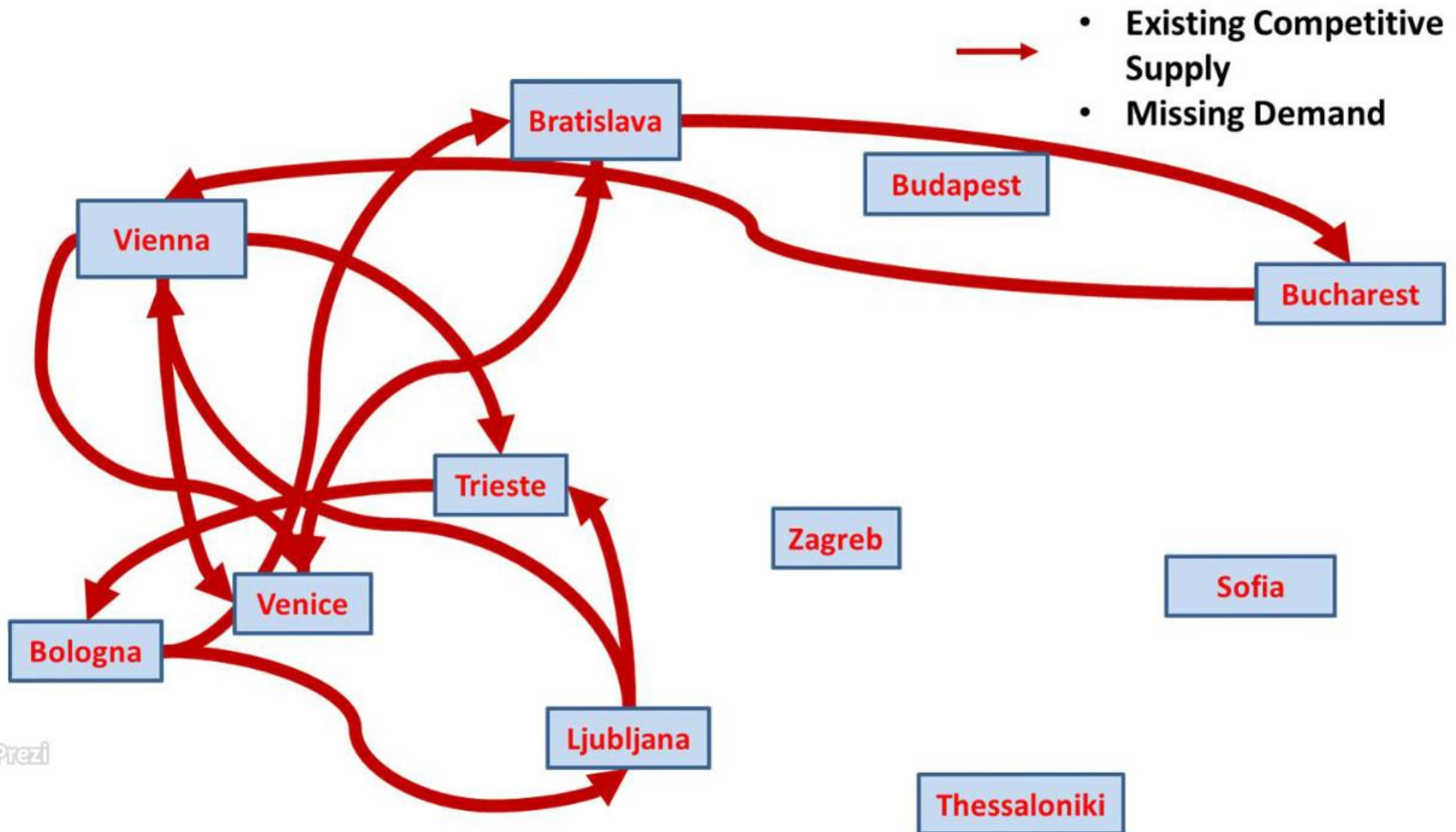


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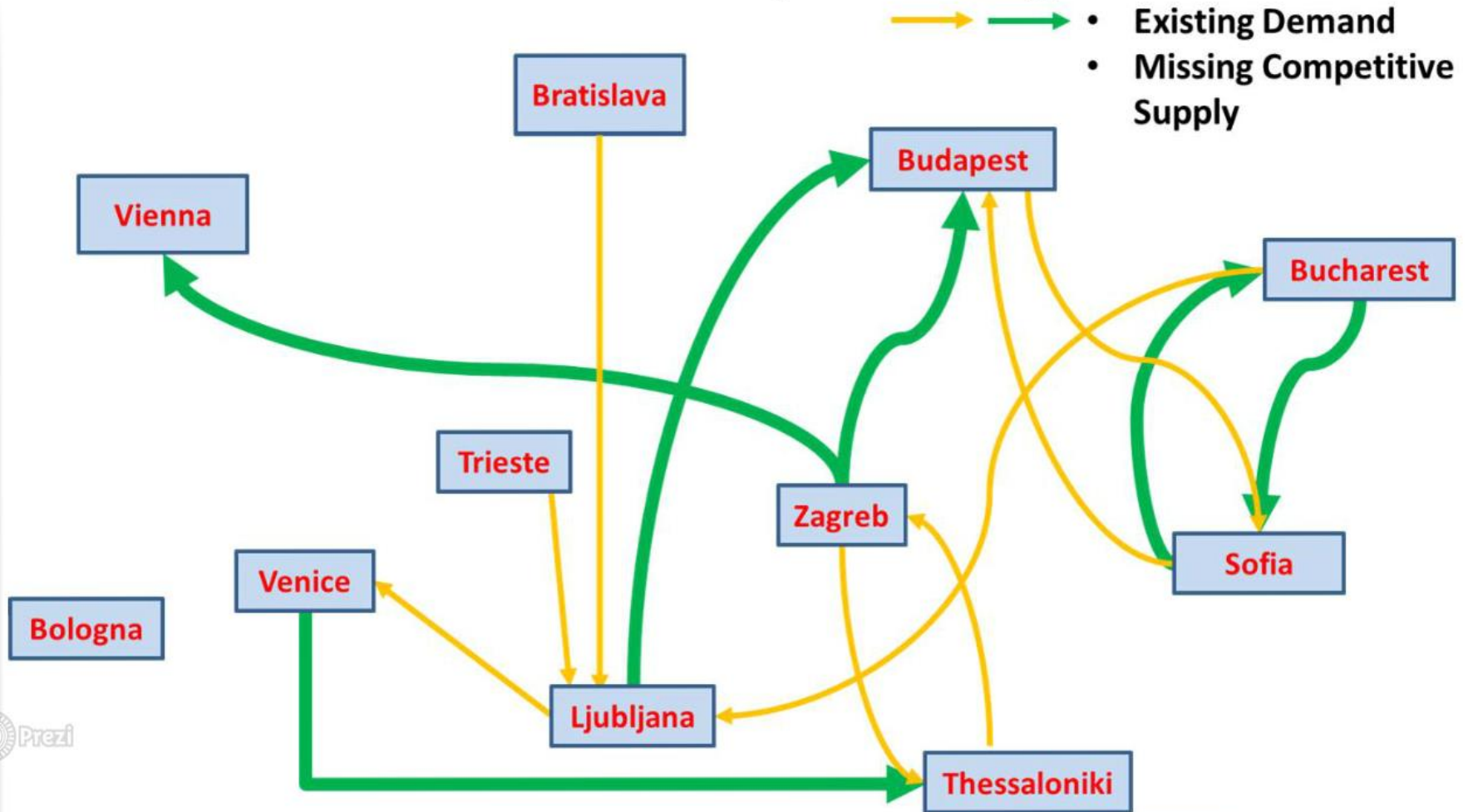
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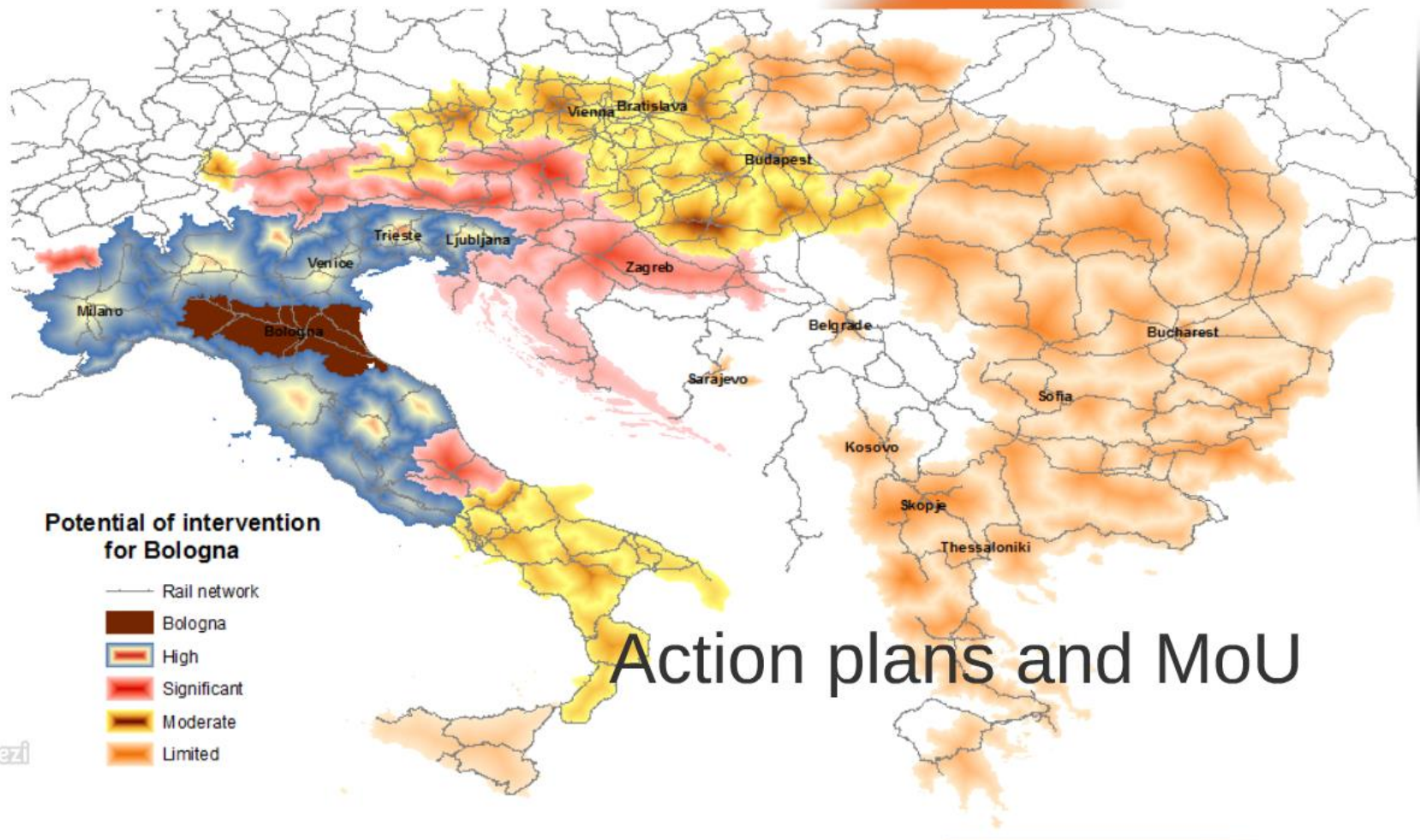
Transnational studies for prioritizing interventions



Transnational studies for prioritizing interventions



Transnational studies for prioritizing interventions



Network of 1st level hubs



parties

- 2| Low market share of rail transport
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The Rail4SEE solutions

- Position paper on PSO competent authorities network
- PSO implementation guidelines

Upgrading of existing organizations and training

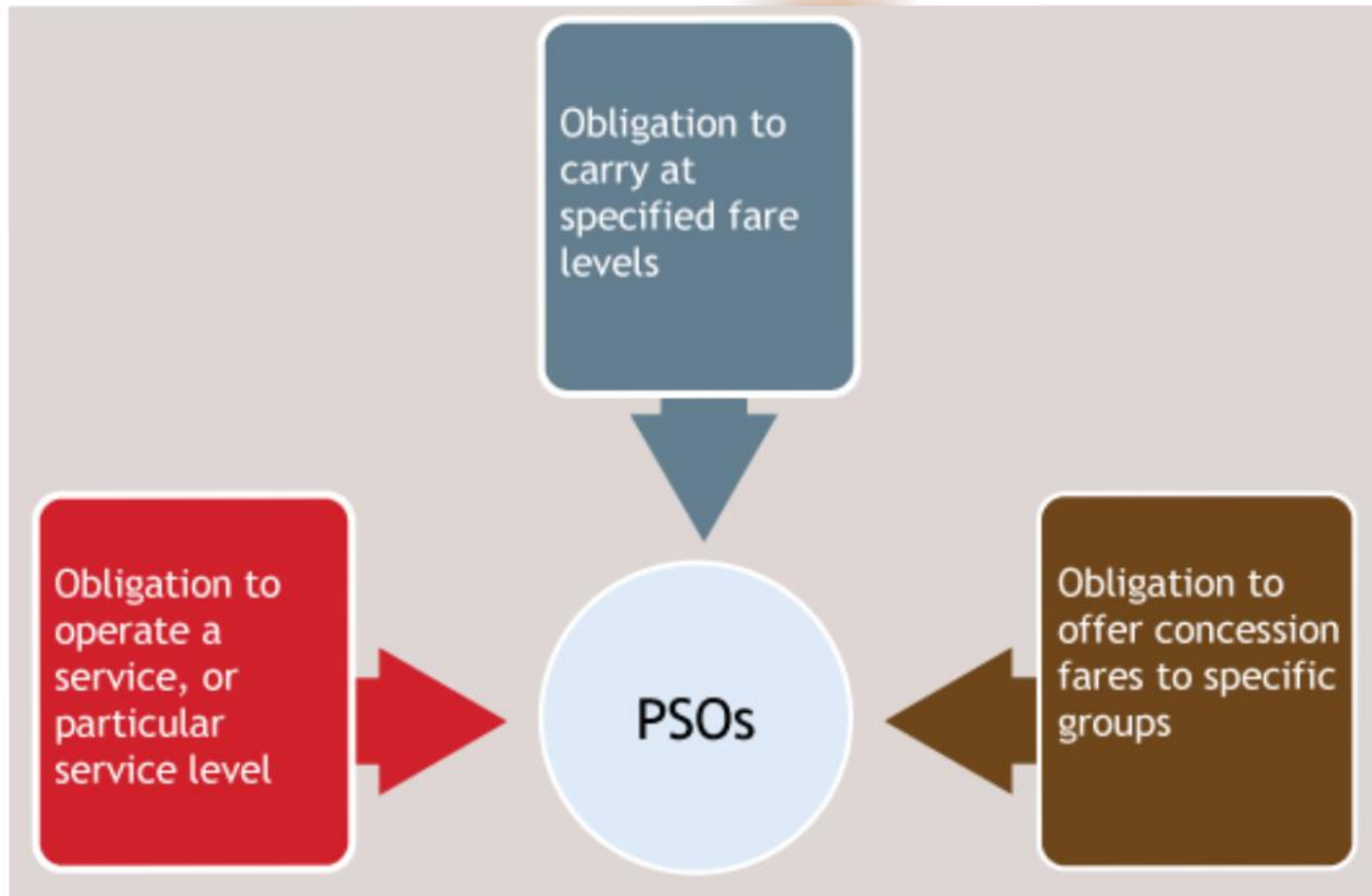


3| Absence of competent authority cooperation

4| Financing of rail operations

5| Cost of use of infrastructure

PSO for transnational services



Marketing of New Services



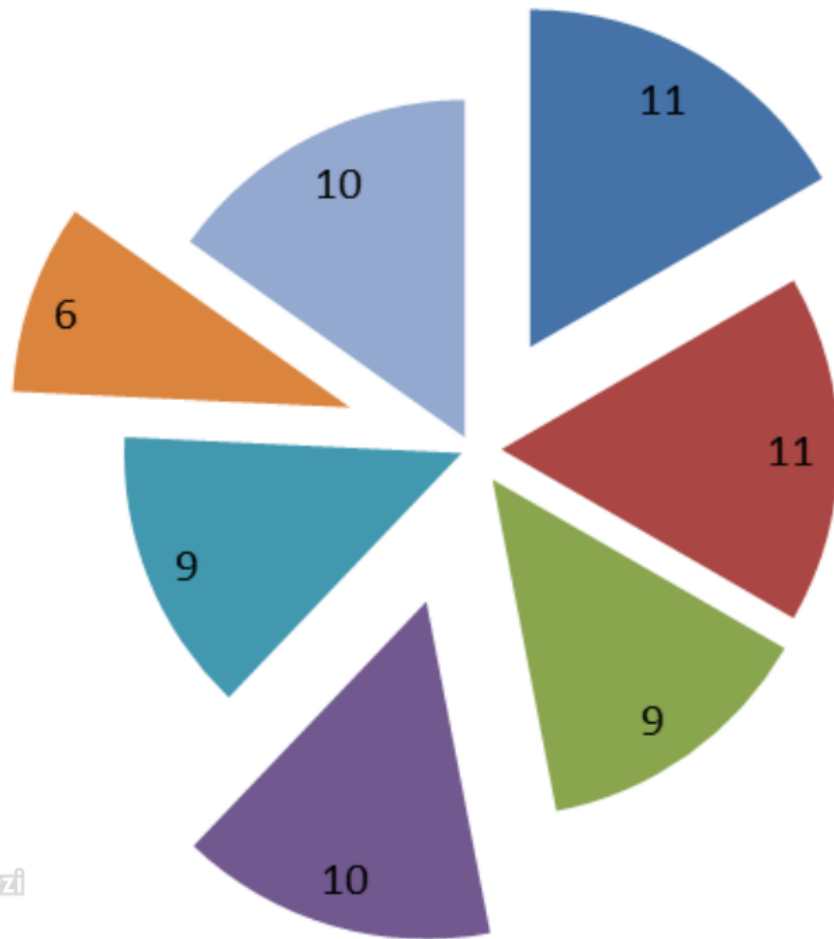
cooperation

4| Financing of rail operations

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Key Message:
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s (ICT) in Rail4SEE

olutions

for data ownership

and security

from Europe



n as "one-

google
herstone



Harmonization of Timetables at regional and transnational level

Contents



Encountered Issues & Problems

- 1) Multiple actors
- 2) Matching of regional-transnational timetables
- 3) Degree of needed harmonization

The Rail4SEE solutions



Position paper on timetables harmonization and rail feasibility

- Market analysis
- An open dialogue with competent authorities
- Bilateral agreements for revenue and cost allocation
- Harmonization in prioritized connections

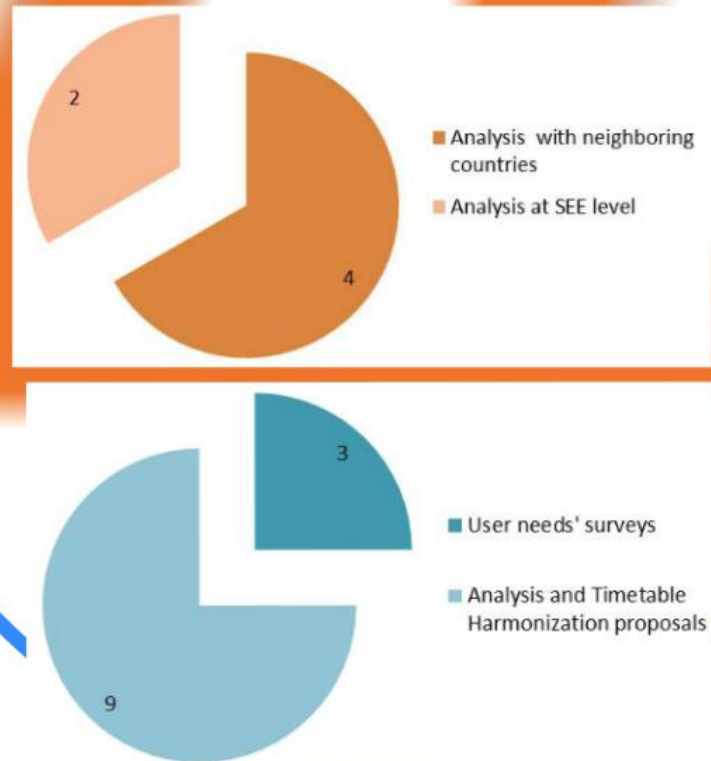


Bilateral agreement

Key Message:

- *Passengers declare substantial decrease in perceived total travel time when HT apply*
- *Exploit existing structures and creation of new for competent partners' cooperation*

Contents



Position paper on transport and rail

Encountered Issues & Problems

- 1| Multiple actors
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- Ma
- An open dialogue
- Bilateral agree
- Harmonization

• *Passe
decrease*

Issues & Problems

1| Multiple actors

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3| Degree of needed harmonization

analyses



Bilateral agreement



tables harmonization



analysis

1| Multiple actors

2| Matching of regional-transnational timetables

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Situational analyses



1| Multiple actors

2| Matching of regional-transnational timetables

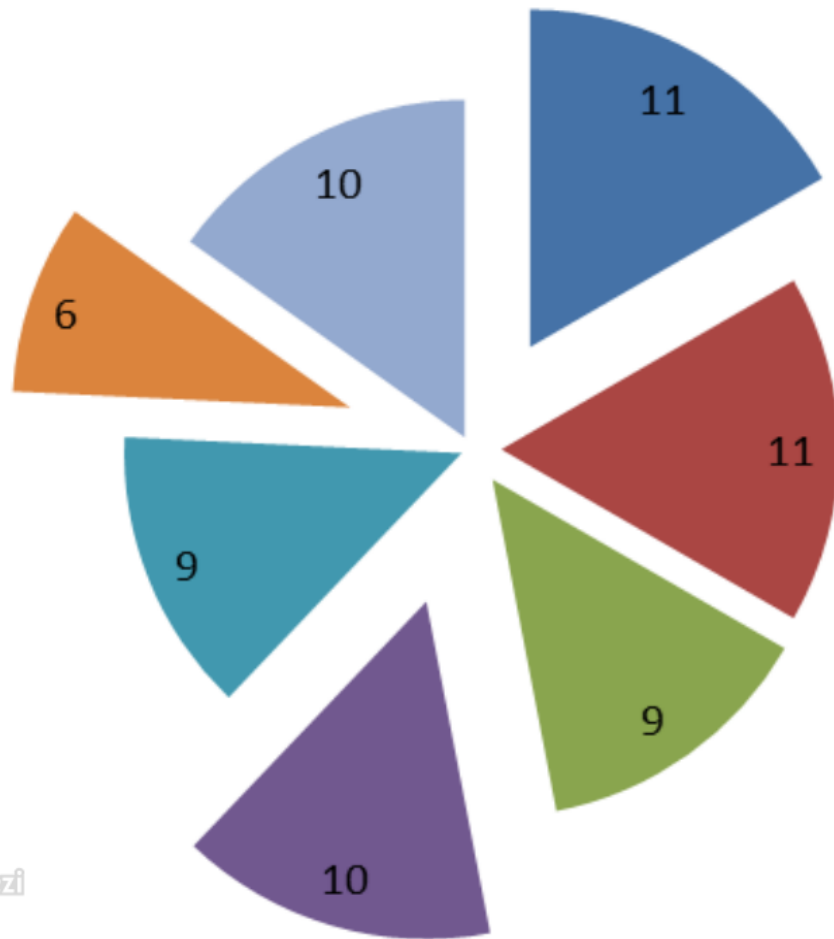
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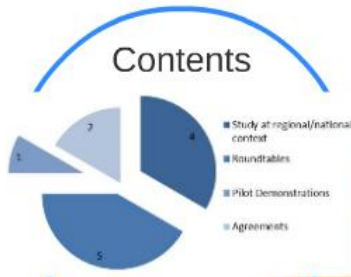
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Integrated Ticketing



Encountered Issues & Problems

- 1) Incomplete planning data
- 2) Stakeholders' cooperation
- 3) Development of modeling scheme
- 4) Definition of tender specs. for PT services
- 5) Missing focus on a door-to-door travel chain

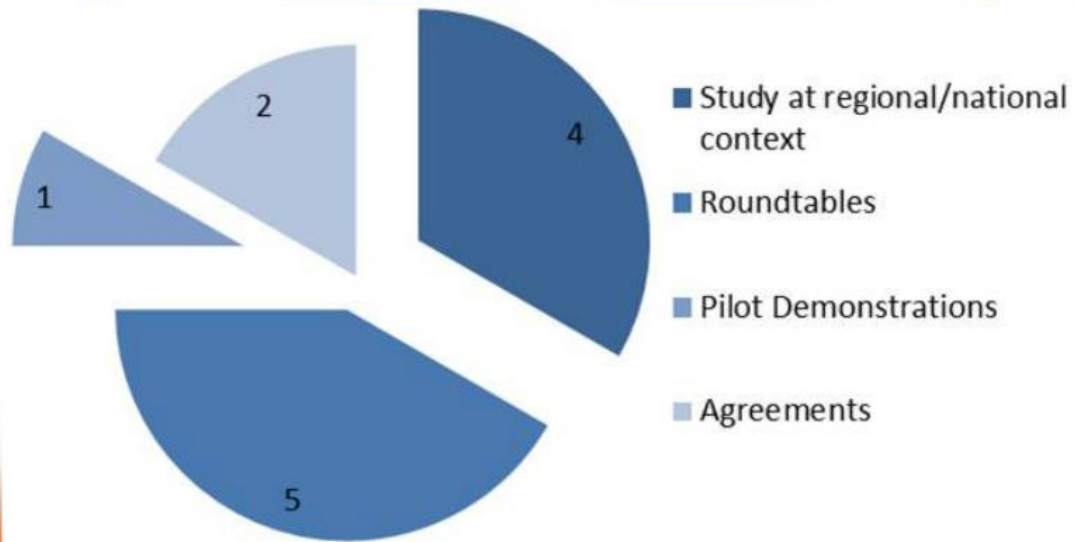
The Rail4SEE recommendations

- > Formal Decisions (legal framework, cooperation agreements)
- > Elaboration of the ticketing system
- > Tendering and negotiation with ticketing suppliers
- > Integration of e-ticketing/mobile e-payment
- > Integration of first/last mile (e.g. car/bike sharing, taxi)
- > Promotion of the new services and their advantages
- > Evaluation and monitoring of model/system

Key Message:

- *e-ticketing crucial for achieving a future "mobility-as-a-service"*
- *Yet, still a challenge..*

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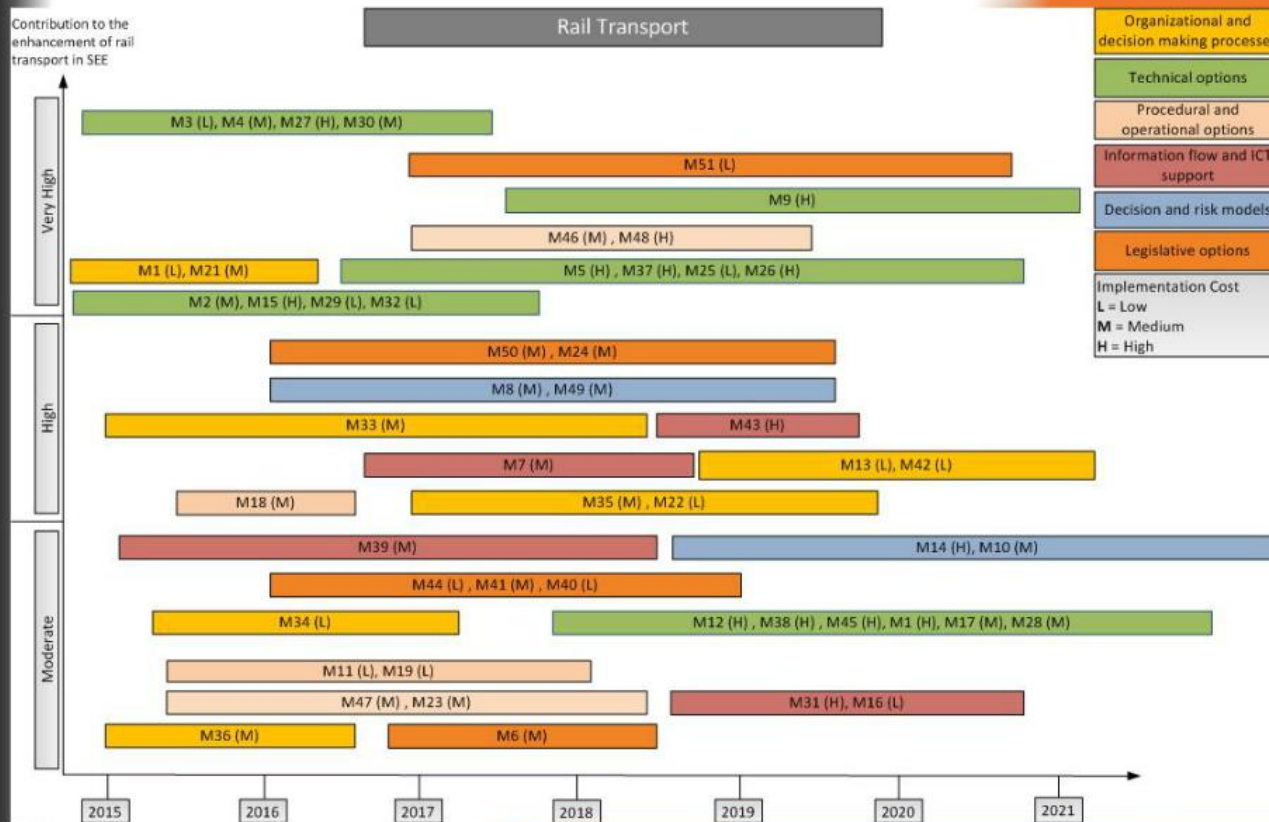
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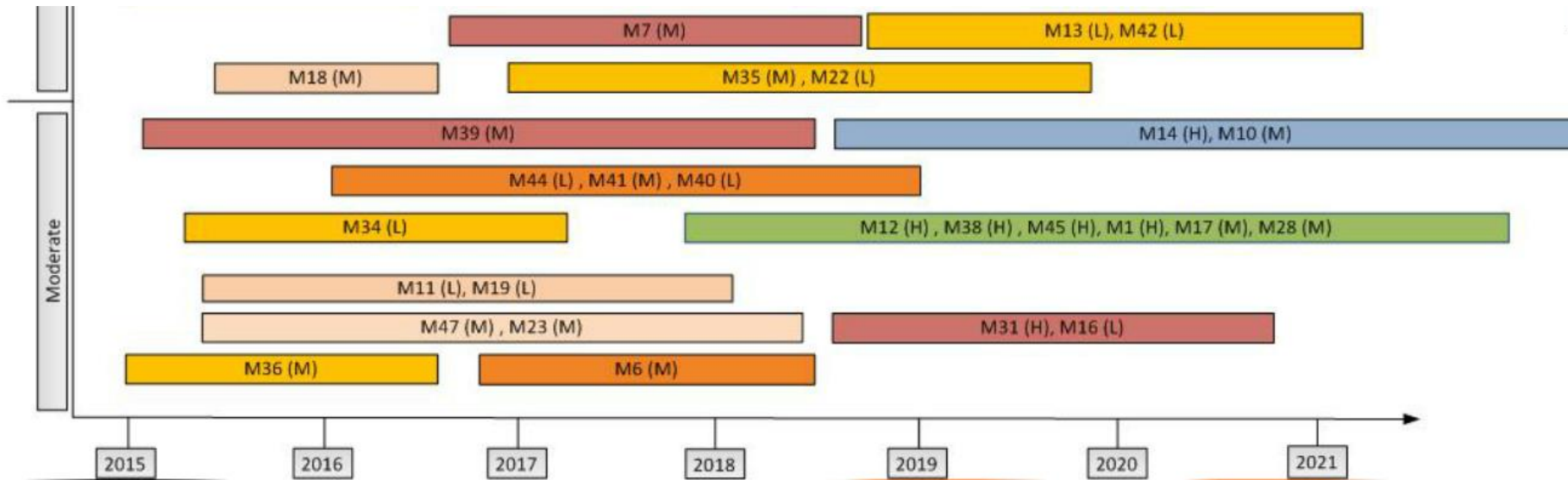
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Consolidated Findings - The Roadmap





Organizational and decision making processes

Technical options

Procedural and operational options

Information flow and ICT support

Decision and risk models

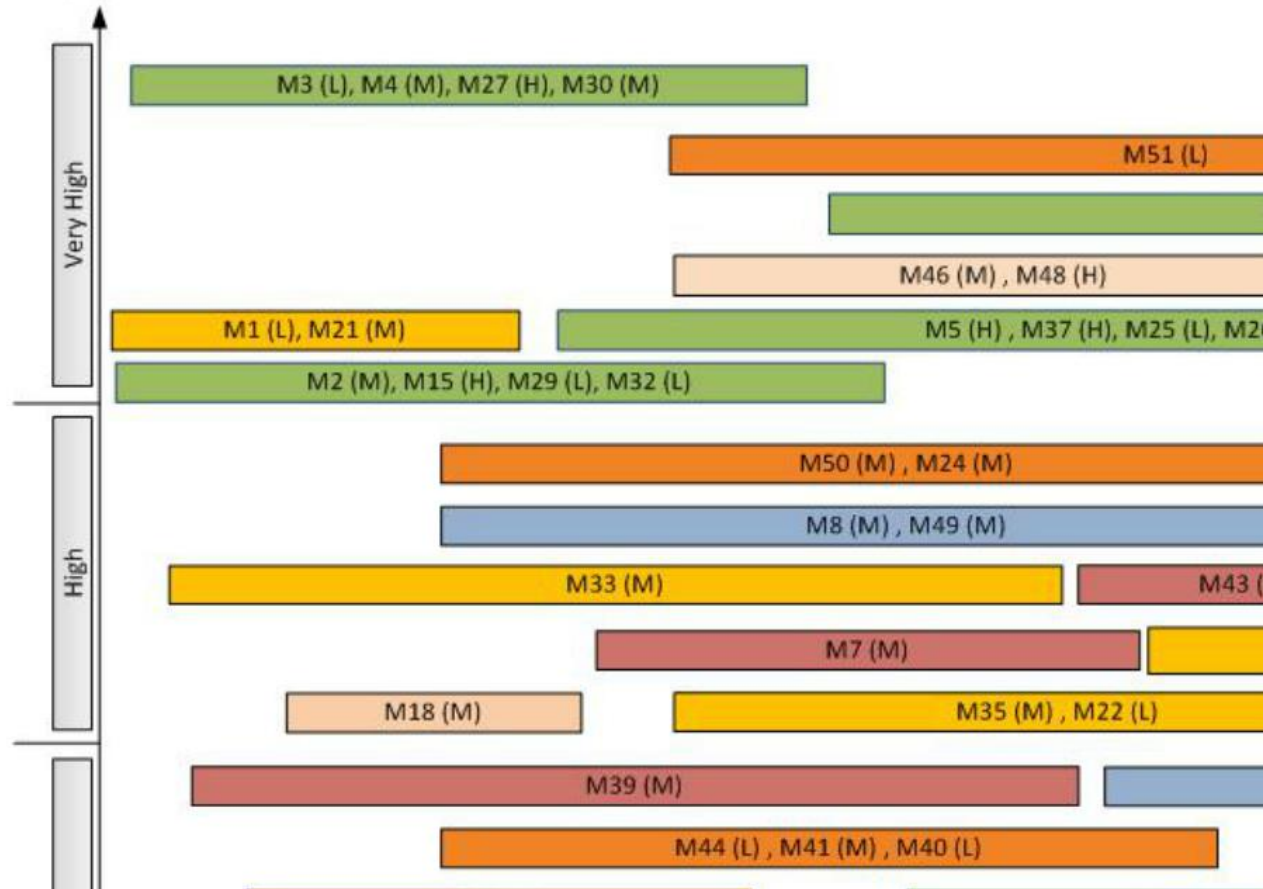
Legislative options

Implementation Cost
L = Low
M = Medium
H = High



Rail Transport

Contribution to the enhancement of rail transport in SEE



ey

An excellent team



A interesting journey

