

Reorganization of the Road Sector in Croatia with the Emphasis on Maintenance



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Why “reorganize” Croatia’s road sector?

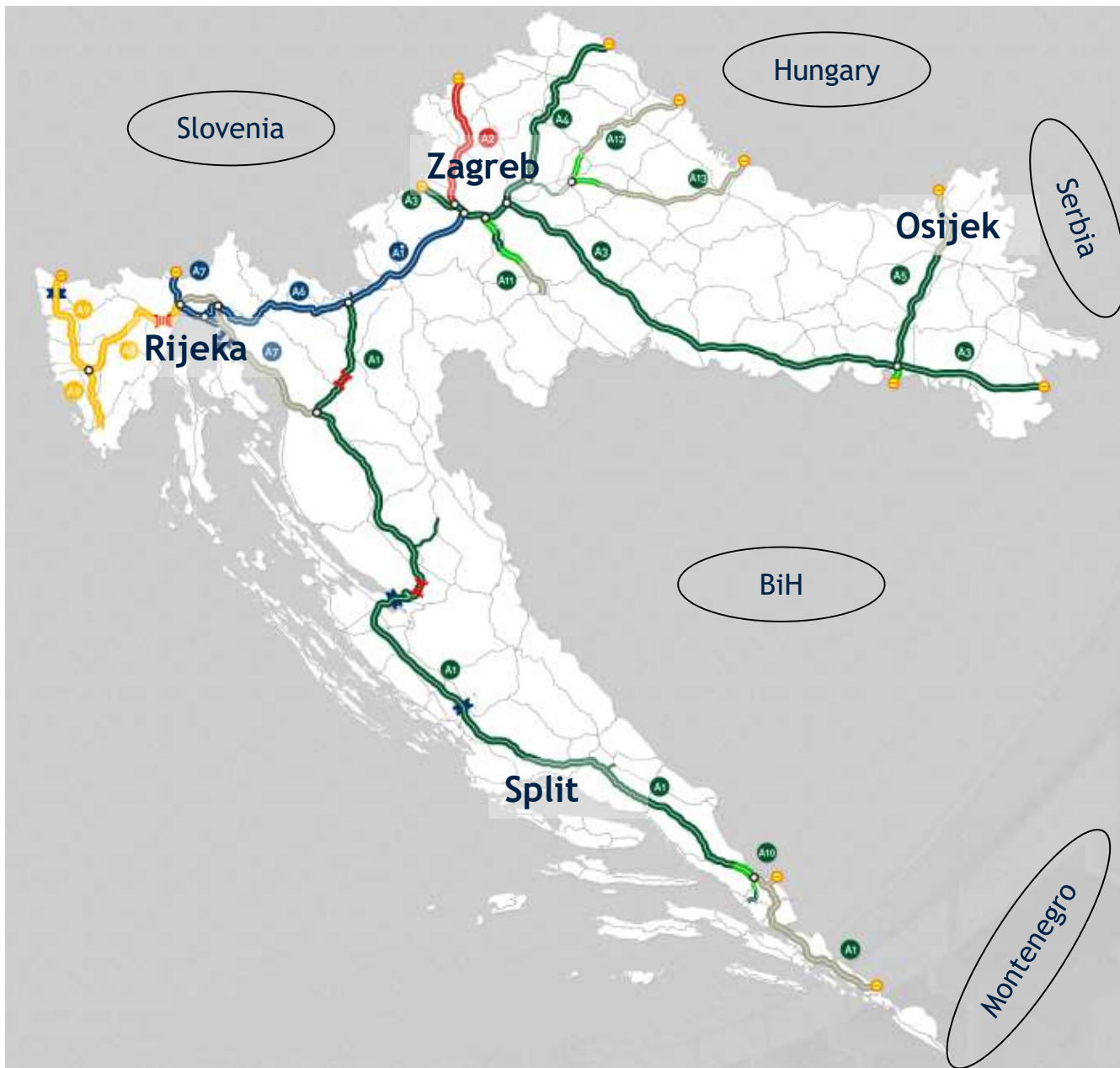
A well-developed road network:

- few needs of new road building (Pelješac Bridge, some city bypasses).
- The country has some 27,000 km of classified roads – and one of the highest densities of motorway worldwide (23 km per 1000 km²)

Network managers include mostly public entities (except for 200 km of motorway PPPs): motorway companies HAC & ARZ, HC (Hrvatske Ceste) for state roads, and county agencies / municipalities for remainder

Major road building peaked in the 2000s, through commercial lending by the 3 state-owned road companies – ongoing financial burden

Need for overall improvement of revenue-cost relationship, **to ensure financing for maintaining roads to an adequate standard**



Croatia's national road network

The motorway and expressway trunk network links the country's capital (Zagreb) with the major regional cities of Split, Osijek and Rijeka, as well as several border crossings with neighboring countries (Slovenia, Hungary, Serbia, BiH). The state-road network (thin lines) exceeds 7,000 km.

Reform Agenda

Current strategy was decided after a long process (since 2012), involving aborted decisions on concession and privatization

Sector reorganization is described in a Letter of Sector Policy, announced in March 2017 by the Ministry of Sea, Transport and Infrastructure (MSTI)

Technical assistance funded through lending by World Bank (IBRD) in conjunction with EBRD

MSTI and road companies supported the development of the technical content of the reform agenda through their participation in thematic Working Groups from May 2016 onwards

Elements of road sector reform – Emphasis on maintenance

Elements of the *Project Development Objective*:

- (a) institutional effectiveness,
- (b) operational efficiency and
- (c) debt service capacity

World Bank technical assistance loan of 22 M EUR;
component A for institutional strengthening and
component B for operational restructuring

- **Institutional strengthening** involves a.o.t. improvement of planning practices: a dedicated department in MSTI is to implement prioritized, rolling sector investment plans with due consideration of maintenance funding needs
- **Operational restructuring** actions are focused primarily on improving the quality-cost relationship of road network operation, in particular maintenance, through improved standards, practices, organization, contracting as well as integrated road asset management systems.

Securing funding to maintain roads to an adequate standard

Heavy maintenance expenditure – annual *targets* for immediate future:

- 298 M HRK for motorways and
- 538 M HRK for state roads

⇒ **below benchmarks**

Routine operation and maintenance – annual *actual* spending:

- 830 M HRK for motorways (incl. contracts, overheads, tolling costs)
- 543 M HRK for state roads (incl. contracts, overheads)

⇒ **reduction needed**

Adequate standards can be achieved if

- (a) routine maintenance is made more efficient;
- (b) preventive & periodic maintenance is enhanced.

This way, emphasis will be shifted from good appearance to **serviceability & durability** – without compromise of safety.

Improving the efficiency of maintenance

Three focal areas for improved quality-cost relationship

1. Sustainable quality of maintenance
2. Specific improvements for motorways
3. Specific improvements for non-motorways

Focal area 1: Sustainable quality of maintenance

Problems identified

(limited preventive maintenance; input-based standards with little emphasis on desired outcome; fragmented road asset management systems, poor linkage to prioritization of investment)

Balancing among different maintenance needs

(routine, preventive, periodic, rehabilitation)

Better fit to functional needs – revision of road classification underway

Improvement of standards

(update of regulations, workshop, end-performance specifications)

Road asset management systems – RAMS

(review of existing RAMS elements, support to implementation and integration of missing elements including data collection)

Road Asset Management Systems – action plan

Croatian public road sector companies have existing systems for managing elements of the road infrastructure (e.g. structures at HAC; pavement at HC) and are in the process of expanding such systems

Two-stage technical assistance to be supported under the World Bank-financed project

First stage (2017) would (i) review existing infrastructure management systems, (ii) identify functional requirements for nationwide road asset management system(s) – RAMS, (iii) dimension second stage

Second stage (2018 onwards) will involve development of RAMS, including data collection – RAMS should be operational in 2020

Existing systems and developments will be utilized where meaningful – **no reinventing the wheel**

System will be expandable to include county roads if so decided in the future

Focal area 2: Motorway maintenance improvements

Problems identified - EBRD study conclusions

(high costs, oversized standards, questionable efficiency, labor-intensive practices, dense spacing)

MSTI decisions for company reorganization

(HAC-ONC to be absorbed into HAC; ARZ to outsource operational activities to HAC)

In-depth analysis and action plan for maintenance improvements

Optimal balance between outsourcing and in-house maintenance work

Spatial organization improvements (spatial optimization)

Implementation plan (detailed)

Focal area 3: Non-motorway maintenance improvements

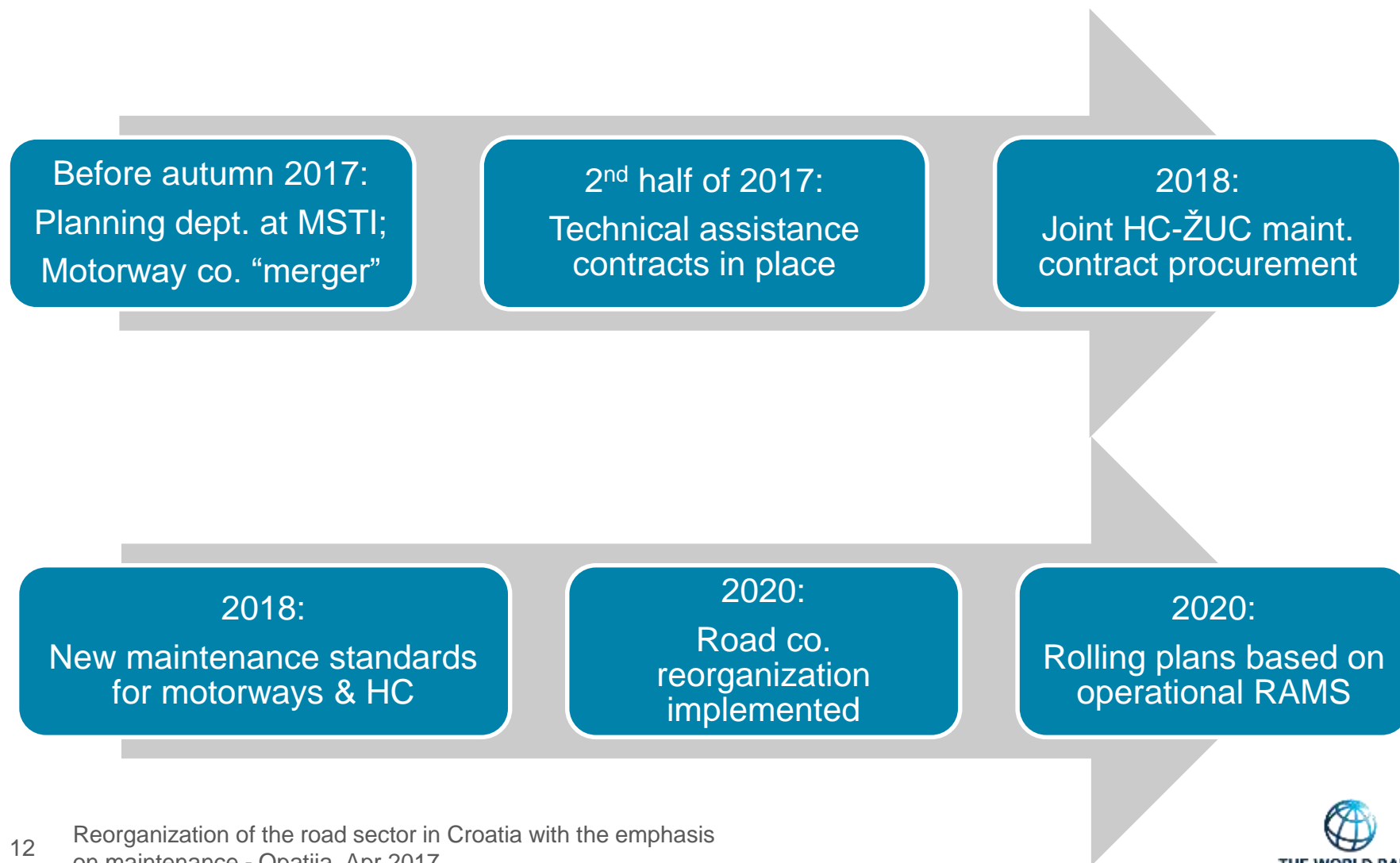
Current situation in HC and county road authorities (ŽUC) as regards road maintenance; problems identified (pricelist contracts with no end-performance requirements; separate contracts to same, partly county-owned companies; limited competition; suboptimal costs)

HC regional reorganization in process; to be supplemented by reform plan for improved efficiency

HC and ŽUC to introduce joint contracting per region – for improved competition, accountability and eventual balancing of expenditure

HC considering extending performance-based contracting (currently limited to part of Istria region) & utilizing the new end-performance standards

Next steps – Key milestones



Today's effort, tomorrow's fruits

Today	"Tomorrow"
Sector-wide planning strategy under development	Networks managed under rolling investment plans
High operational costs	Rational operational costs
Input-based pricelists (state roads)	Clear end-performance specifications
Only administrative classification	Technical classification according to traffic level and functional criteria
Overstaffed motorway operation	Staff levels in accordance with international good practice
Fragmented road asset management elements	Integrated RAMS used for annual rolling maintenance plan
Emphasis on routine maintenance	Balanced approach with increased preventive / periodic maintenance

Thank you for your attention!

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