



Good Practice N°11

## Gateway Slovenia

Slovenske železnice - Tovorni promet, d.o.o. (SŽ), 04/2013

### Contents

- Good practice form
- Introduction (summary)
- Starting position (gaps and challenges)
- Concept and components
- Application cases
- Conclusions and benefits
- Further exploitation
- Contact
- Disclaimer

## Good practice form

Good practice name	Gateway Slovenia
Type	(1) Market requirements (2) Rail production (4) CT Terminals
Involved actors	(1) Intermodal operator (2) Railway operator
Commercial / Functional application area	Hub-and-spoke system for intermodal rail transport
Geographical application area	Ljubljana, Slovenia (hub); Central and Eastern Europe (spoke lines)
Status / Time period	In operation (since 2005); continuous adaptations according market needs
COSMOS contact	Mr. Robert Gaber (SŽ) email      robert.gaber@slo-zeleznice.si phone      +386 1 29 13 136

### Introduction (summary)

**Gateway Slovenia** is a regional hub-and-spoke intermodal concept consisting of an international network of unaccompanied services with Slovenia as gateway country between West and Central/East European countries.

The network has been developed and is run by intermodal CT operators such as Adria Kombi (Slovenia), Cemat (Italy), Hungaria Intermodal (Hungary) and Kombiverkehr (Germany), the Slovenian Railways and the International Union of combined Road-Rail transport companies (UIRR-Belgium). The development and start-up of the concept has been co-financed by the European Commission in the framework of the Marco Polo Program.

### Starting position (gaps and challenges) – transport demand

- **Transport demand boosted** due to the expansion of the European Union in 2004 due to the following reasons:
  - Positive economic development in accession countries
  - Abolishment of customs controls
  - Decrease of transaction costs
  - Lessening of administrative barriers
- **High growth rates** especially in **road transport**
- **Growth rates in rail freight** transport far behind expectations due to the fact that **no sufficient intermodal service offers were existing in the region**

### Starting position (gaps and challenges) – intermodal concepts

- **General idea and advantages of combined transport:**
  - **Combining advantages of road** (flexibility) **and rail** (environmentally friendly; cost efficiency for mass transport on larger distances)
  - Reduction of CO<sub>2</sub> emissions and energy consumption
- **Step 1: Implementing new intermodal concepts**
  - Responding to changed market conditions
  - Shift from accompanied to **unaccompanied intermodal transport**
  - **Containerisation** being promoted by intermodal operators
- **Step 2: Set up intermodal network system (Gateway Slovenia)**
  - Connecting major industrial canters with Ljubljana as a regional hub
  - Collaboration of four intermodal operators: Adria kombi (Slovenia), Cemat (Italy), Hungaria Intermodal (Hungary), Kombiverkehr (Germany)

### Concept and components – main features

- **Hub-and spoke network** in which all intermodal traffic moves along spokes (intermodal shuttle and block trains) connected to the hub (Ljubljana Container Terminal)
- **Fixed time tables** allow transport of containers between regional container terminals in acceptable time
- **Trains interconnections in Ljubljana** with optimised transshipment times link international trains and regional networks
- **Careful planning of day-to-day operations** considering changes at the hub or even of a single route to secure network stability
- **Efficient hub operation** due to optimised route scheduling and careful analysis / precise timing of hub processes

## Concept and components – map of Ljubljana hub and links



Source: Slovenske železnice – Tovorni promet



### Concept and components – success factors

- **Installation of a hub**

- **all containers** can be handled in **one location** rather to be sorted in multiple locations
- **no additional** (maybe low utilised) **train connections** needed to reach final destination

- **Additional services of intermodal operators**

- Connecting the national CT networks
- Harmonizing the service level of the system
- Providing the necessary resources and capacities of the wagon fleet and CT terminals

### Application cases – implemented train services (destinations)

#### **Current services / destinations from/to Ljubljana:**

- **Munich:** 3 round trips / week  
– link to Kombiverkehr network (Kombinetz 2000+)
- **Budapest:** 5 round trips / week
- **Belgrade:** 2 round trips / week
- **Koper** (Komar corridor): 7 round trips / week
- **Istanbul** (system extension): 3 round trips / week

#### **Additional domestic services / destinations from/to Koper:**

- **Celje**
- **Maribor**

### Application cases – implemented train services (characteristics)

- **Two standard train sets** for the different routes adopted
  - Route **Koper – Ljubljana – Budapest/Belgrade** (maritime traffic)  
24 four-axle wagons  
→ train length: 500m; loading capacity: 1,100 tonnes
  - Route **Ljubljana – Verona / Munich** (continental traffic)  
16-20 wagons (depending on demand)
- **Actual load factors: 80-90%**
- **Trains operated by national railways**
- **Electronic documentation exchange** between **UIRR members** on shipments, trains, connections and dangerous goods.

### Conclusions and benefits – advantages of gateway concept

- **Reliability of the service**

- Shuttle and block train lines with fixed timetables without changing the transport mode

- **Efficiency of the service**

- Network parameters provide smooth operations and user-friendly administration
- Interconnection of trains in the hub without time losses at transhipments
- Linkage of train services to regional networks

- **Competitiveness of the service**

- Fixed frequency, capacity and transit times in the network
- Electronic transfer of data between partners and train monitoring system
- One-stop-shop for the client
- Harmonisation of the CT terminal service level

### Further exploitation

- **System expansions planned** by operation partners;
  - **significant investments** decided by partners to establish the system
  - planned system expansions (e.g. to Poland / Romania)  
**currently slowed down** due to economic crisis
- **Further investments / optimisations necessary**  
to cope with increased traffic and transport volumes
  - Improvement of **terminal infrastructure** (Ljubljana)
  - Further **optimisation of the network services / service elements** of intermodal operators to fully exploit potential cost savings and improved service quality provided by the concept

### Contact

Mr. Robert Gaber

Slovenske železnice  
– Tovorni promet, d.o.o.

Kolodvorska 11

1000 Ljubljana, Slovenia

Email: [robert.gaber@slo-zeleznice.si](mailto:robert.gaber@slo-zeleznice.si)

Phone: +386 1 29 13 136



### Disclaimer

The present good practice presentation has been compiled by one or more COSMOS partner and may contain business sensitive information.

You may use the content totally or selectively without changing the content of the single slides, if clearly identifying the source:

COSMOS Project, Good Practice Manual,  
Slovenske železnice - Tovorni promet, d.o.o.,  
2013, [www.cosmos-project.eu](http://www.cosmos-project.eu)