



Good Practice N°10

## Joint locomotive pool and maintenance strategy

Lokomotion GmbH, 04/2013

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## Good Practice N°10: Joint locomotive pool and maintenance strategy

### Good practice form

Good practice name	Joint locomotive pool and maintenance strategy
Type	(2) Rail production
Involved actors	(2) Railway operator
Commercial / Functional application area	Joint usage and maintenance of locomotives between two private railway operators
Geographical application area	Germany, Austria, Italy
Status / Time period	In operation
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## Good Practice N°10: Joint locomotive pool and maintenance strategy

### Introduction (summary)

- In October 2001 the German Lokomotion and the Italian Rail Traction Company (“RTC”) were the first private railway undertakings to make use of the opportunities in the transalpine traffic, offered by the EU deregulation.
- Today, Lokomotion is the leading private rail haulier in transalpine freight traffic on the Brenner and Tauern rail lines. Its main products are accompanied and unaccompanied combined traffic as well as wagonload traffic.
- When in 2004 the first multi-system locomotives became available on the market, it was Lokomotion and RTC who went together to the manufacturers and leasing companies in order to remove the technical and administrative hurdles to the use of interoperable motive power between Germany and Italy.
- Since 2005, a large number of trains have been running with only one crew change across the electrification system border between Austria, Italy and after that also between Austria and Slovenia, which minimises the border stopping times and eases the course of operation. At present, Lokomotion and RTC use a total of about 25 multi-system locomotives in their transalpine traffic.
- Neglecting the ownership of locomotives, Lokomotion and RTC jointly use their (both leased and owned) locomotives in one common pool in the daily operation. The maintenance of these locomotives is planned in close agreement with each other to guarantee efficient maintenance processes.

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### Starting position (gaps and challenges) – framework conditions

#### Gaps

When the European railway market was deregulated by the EU there were **no multisystem locomotives available** on the market. As a result, it was necessary to **change the locomotives at the system borders** (= country/network borders).

#### Challenges

**Remove technical and administrative hurdles** for the usage of interoperable motive power between Germany and Italy , e.g. by

- combining and harmonising various specifications of different countries in one locomotive;
- to achieve the homologation for the different countries by the national safety authorities.

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### Concept and components – overview

- Lokomotion and RTC have a common pool of about **25 multisystem locos**
- There is a **joint circulation planning** of the Lokomotion and RTC dispatching teams
- **Maintenance** of these locomotives
  - is planned in **close agreement between Lokomotion and RTC** to guarantee efficient maintenance processes.
  - are done in **different workshops all over Italy, Austria and Germany** which are used for all kinds of works




## Concept and components – joint locomotive pool

- For a smooth realisation of traffic flows, **Lokomotion and RTC co-operate closely** since the start-up of both companies, so that a continuous production chain from Germany to Italy can be offered.
- **Joint locomotive pool** means that there is no distinction between the different locomotives in the operational business:
  - it is not relevant if a locomotive is owned by Lokomotion or RTC or if it is a leasing locomotive;
  - all available multisystem locos are considered in a common circulation planning of the Lokomotion / RTC dispatching teams
  - thereby an efficient usage of the locomotives in the network is guaranteed.
- **Customers benefit** from this close co-operation through
  - **optimised production sequences** and
  - **attractive journey times** (for example by minimised border stopping times)

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## Concept and components – joint locomotive pool

### Lokomotion / RTC multisystem locomotives

			
<b>Locomotive type</b>	<b>BR 186</b>	<b>BR 189</b>	<b>EU 43</b>
<b>Engine power</b>	<b>5,6 MW</b>	<b>6,4 MW</b>	<b>6,4 MW</b>
<b>Max. speed</b>	<b>140 km/h</b>	<b>140 km/h</b>	<b>140 km/h</b>
<b>Total number of units</b>	<b>13</b>	<b>12</b>	<b>8</b>
<b>Operated countries</b>	<b>Germany, Austria, Italy</b>	<b>Germany, Austria, Italy</b>	<b>Italy, (Germany, Austria; actually in operation only in Italy)</b>

Source:  
Lokomotion



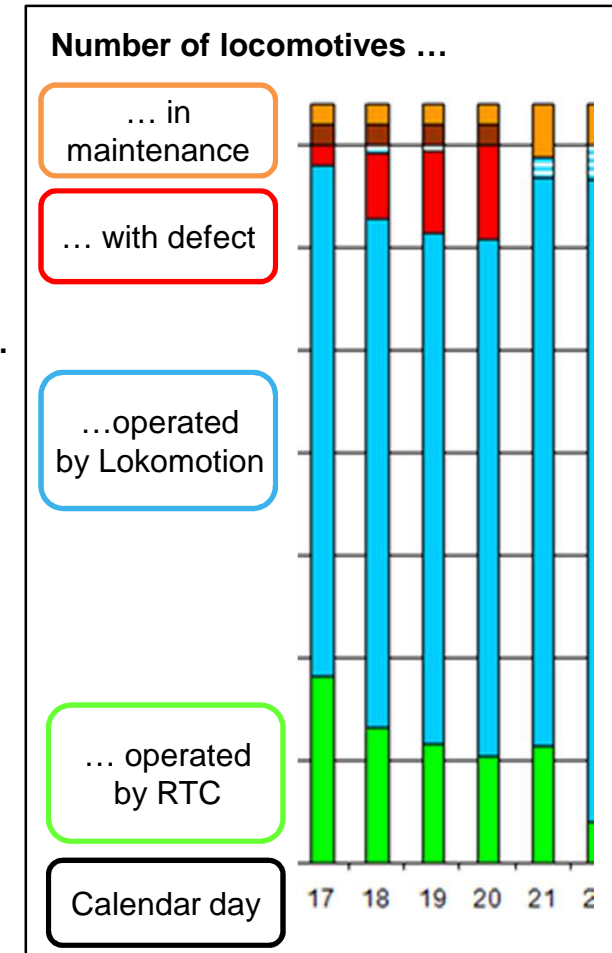
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### Concept and components – joint locomotive pool

#### Supervision / monitoring of locomotives

- **Permanent supervision** of current locomotive usage and circulation to
  - detect potentials for a more efficient usage and
  - to develop new traction concepts / circulation plans.
- **Daily monitoring reports** provide an overview about fleet operation status:
  - How many locomotives have been in service for Lokomotion / RTC?
  - How many locomotives have been in the workshops?
  - Which locomotives had any defects etc.?

→ **It's very fast and easy to initiate appropriate measures.**

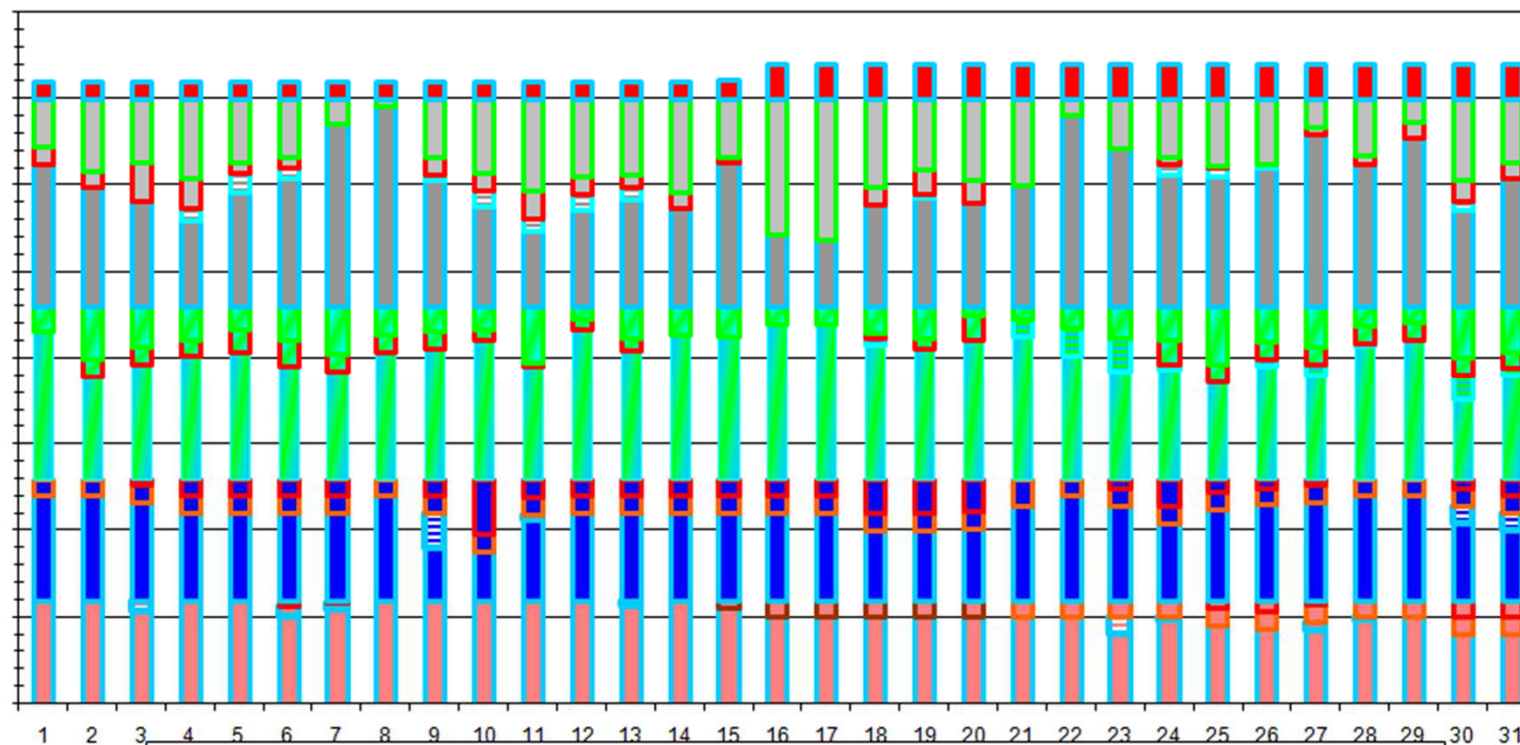


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### Concept and components – joint locomotive pool

#### **Detailed monitoring of locomotives**

Additional viewing option provides detailed monitoring information e.g. for each type of locomotives or for each country etc.)



Source: Lokomotion

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### Concept and components – joint maintenance strategy

- **Maintenance** (both preventive and corrective) is an **essential part of a common pool of multisystem locomotives**
  - Potential benefits of a joint loco pool can only be fully exploited with **joint / cooperative planning of maintenance** activities.
  - Consequently fleet management of Lokomotion and RTC are working together closely for example regarding maintenance slots:
    - in principle most kinds of works (also such regarding country specific equipment) can be done in workshops in Germany, Austria and Italy, so that different duties can be handled in one workshop.
    - A joint planning therefore leads to low standstill periods and high availability of vehicles
- **Required locomotive capacities in general can be provided due to a high availability of the fleet.**

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### Application cases – cooperation Lokomotion / SZ

Another application case is the cooperation between Lokomotion and the Slovenian Railways (SZ):

- Cooperation for traffic from Munich to Ljubljana and vice versa
- Deployment of modern multi-system class 541 locomotives ("Taurus 3") for the entire route between Ljubljana and Munich
- Through working of locomotives from Slovenia to Germany and vice versa was an important outcome of the participation of both companies within the EU research and development project "CREAM" (2007-2011; EC co-funded; FP6)

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### Conclusions and benefits – Lokomotion perspective

- We are convinced that a harmonized European network can help us to increase further the customer appeal of environmental friendly transalpine rail transport and to continue expanding our service offer. For that reason Lokomotion is willing to invest significantly in locomotives but is also continuously involved in studies and projects to improve quality and borderless transports.
- We can only meet that challenge through a rail freight service which is innovative, of high quality and in harmony with our customers. An efficient usage of the fleet , which can be achieved for example by close cooperations with partners, helps significantly to reach these goals.

## Good Practice N°10: Joint locomotive pool and maintenance strategy

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