11th PRIME Plenary Meeting, Brussels, 16 November 2017

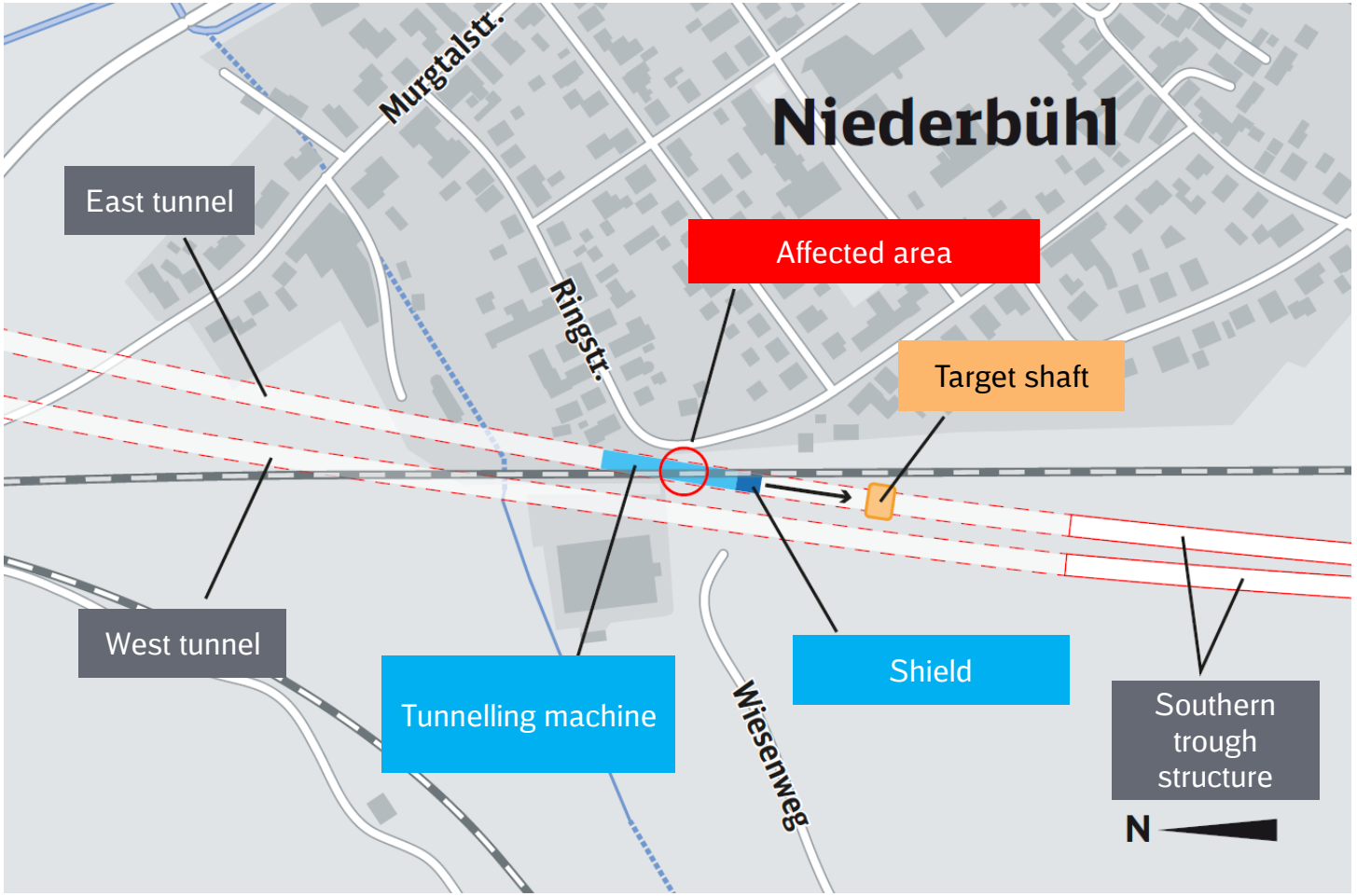
State of Play: Review of Rastatt disruption and first ideas for contingency plans

DB Netz AG | Bettina Wunsch-Semmler | 2017-11-16

Agenda

1. Rastatt incident
2. Rerouting of rail freight
3. Review

On August 12th a lowering of tracks happened south of Rastatt in the framework of tunnel construction works



As a consequence the route Karlsruhe - Basel had to be closed immediately and completely between Rastatt and Baden-Baden after the incident.

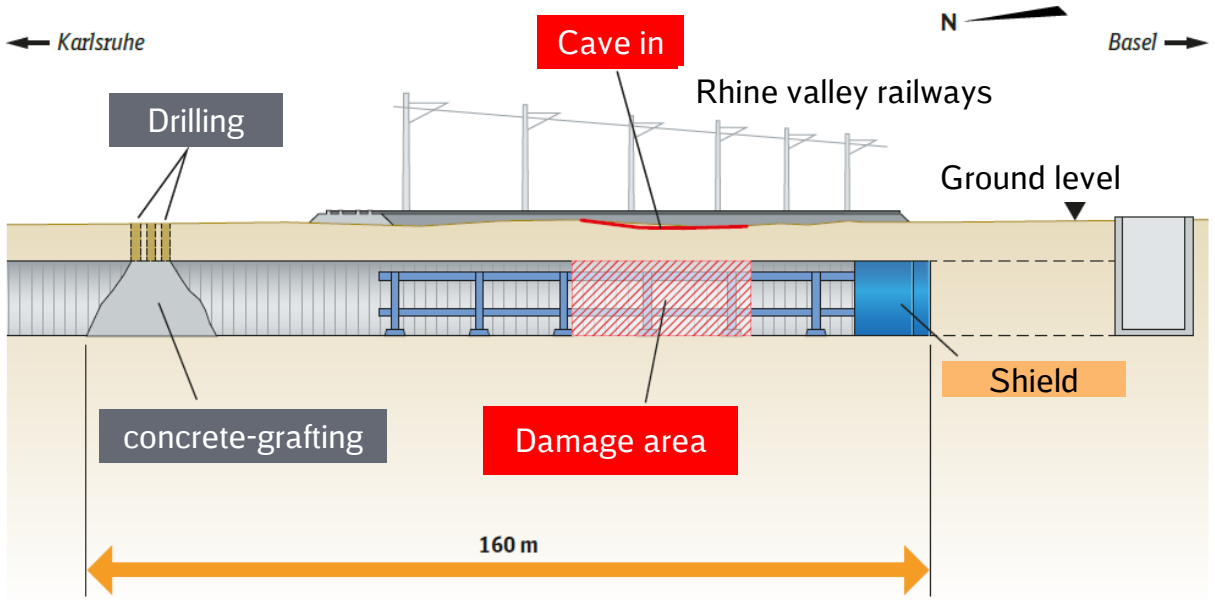
The first actions on the damaged railway section involved stabilizing the tunnel construction site

Immediate stabilization of the damaged tunnel section

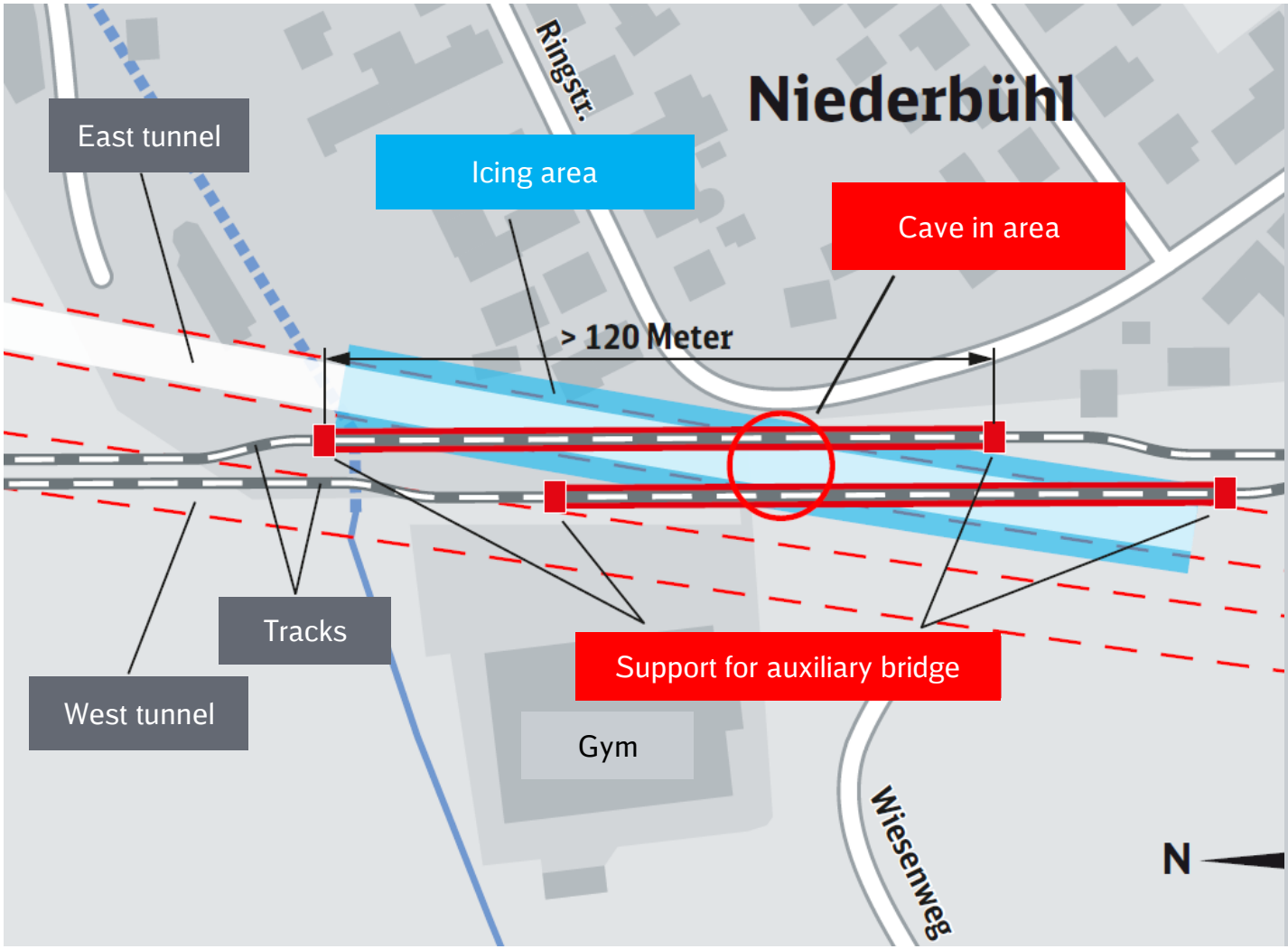
Since 17 August 2017, a concrete grafting separates the damaged part from the intact part of the 4,000 meter long tunnel

The damaged tunnel section was stabilized by filling it with around 10,500 cubic meters of concrete

On 25 August 2017, the filling of the tunnel was completed and the precautionary evacuated residents returned to their homes



The installation of provisional bridges was not possible for several reasons and was discarded as a solution



- Deep foundation (3 - 6 m) can only be statically implemented outside the icing area, which means that 2 auxiliary bridges with an overlap length of 120 m are necessary
- An inquiry by DB , the German Armed Forces and the NATO member countries was negative
- The time required for the necessary track clearance, installation and foundation is greater than for the selected cast-in-place concrete
- Due to its surface-supporting effect, the cast-in-place concrete does not require a deep foundation and can therefore be shorter

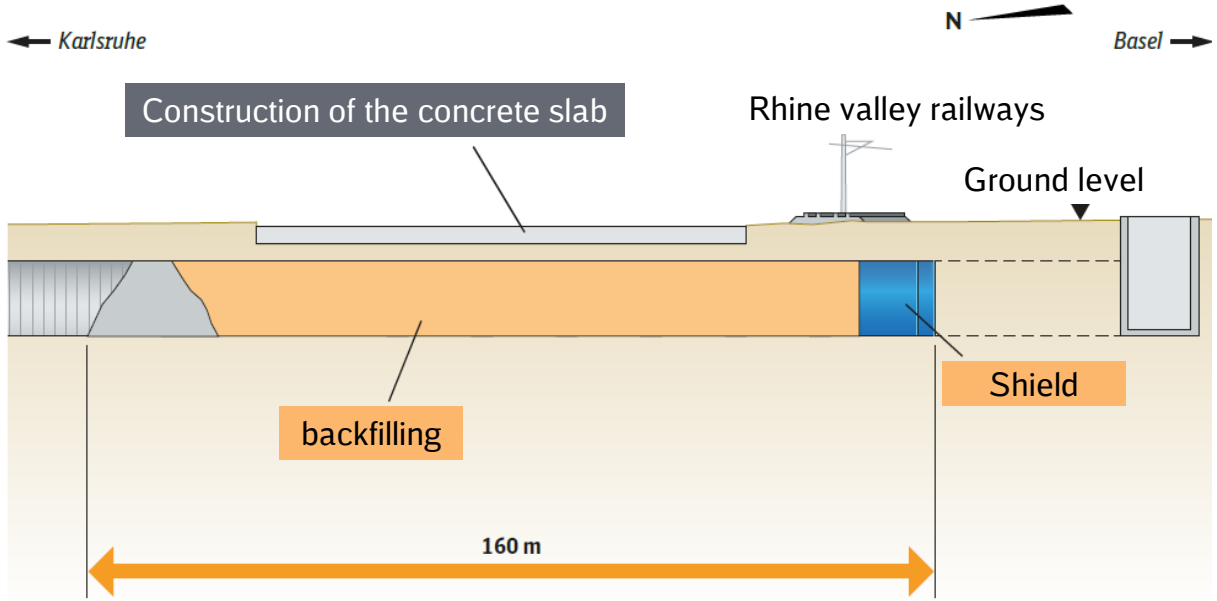
To restore operation on the high-frequency Rhine valley railway a concrete superstructure was built

For the secure and lasting restoration of the track a concrete slab above the tunnel and below the existing superstructure was build

After production of the "concrete floor" the laying of gravel, rails and the installation of the signal technology began

As preventive measure a second concrete slab was build above the second tunnel tube to stabilize the ground further

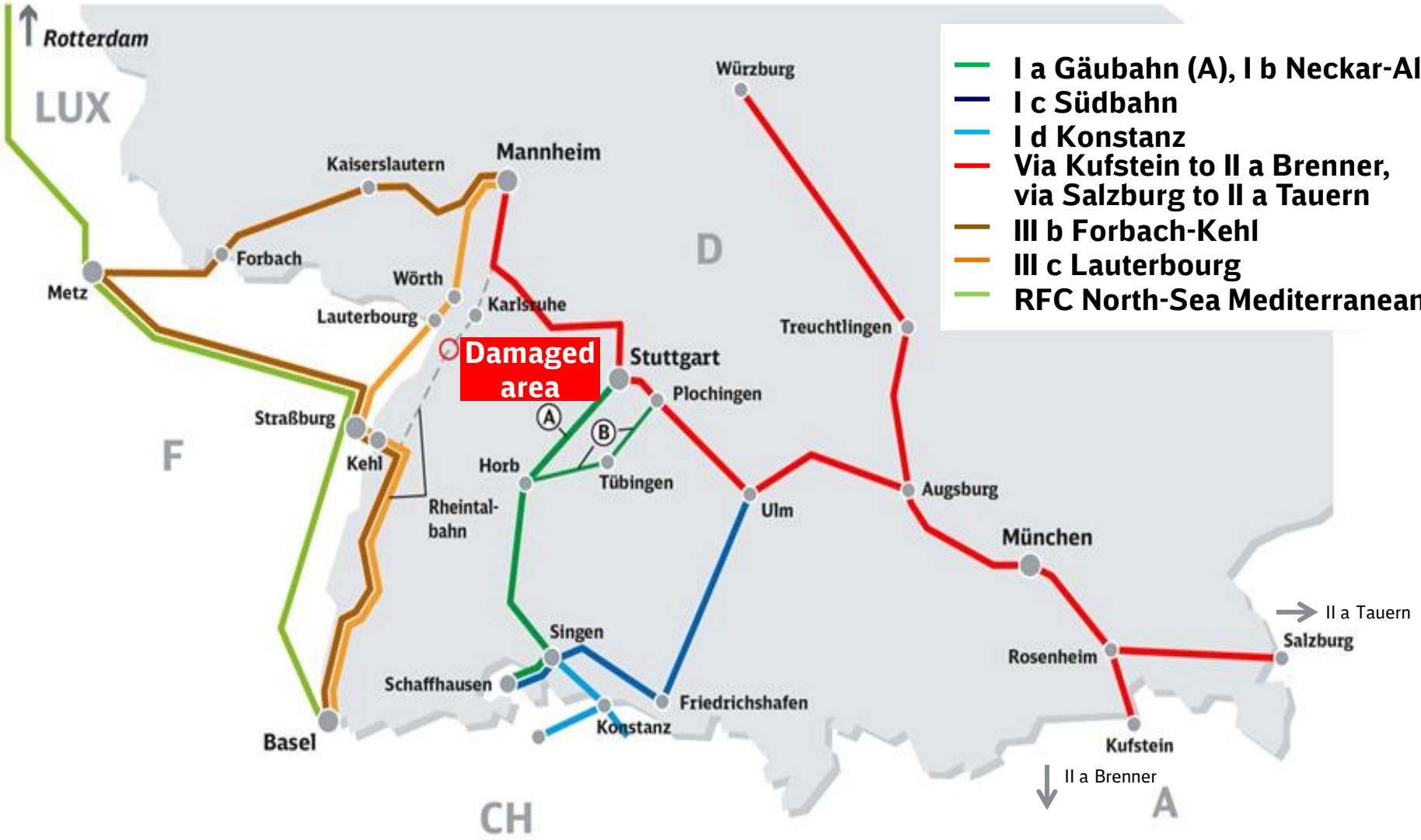
On 2 October 2017 the Rhine valley railway was back in operation – five days earlier than originally planned



Agenda

1. Rastatt incident
2. Rerouting of rail freight
3. Review

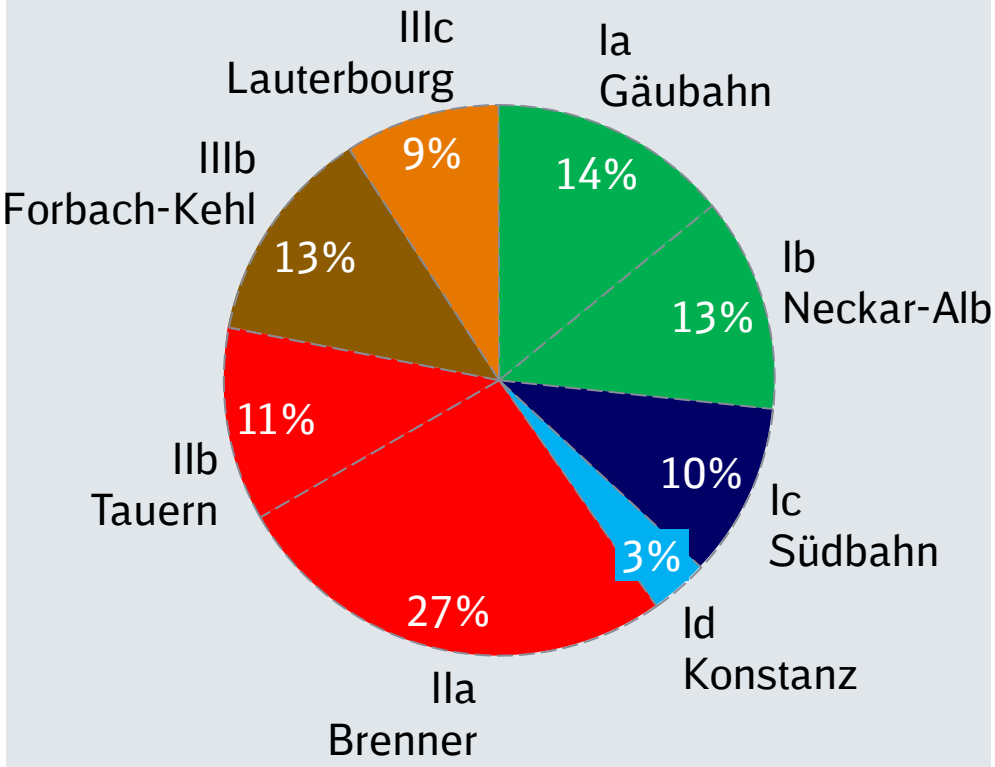
Communication of the pre-defined diversion routes started already on 13 August 2017



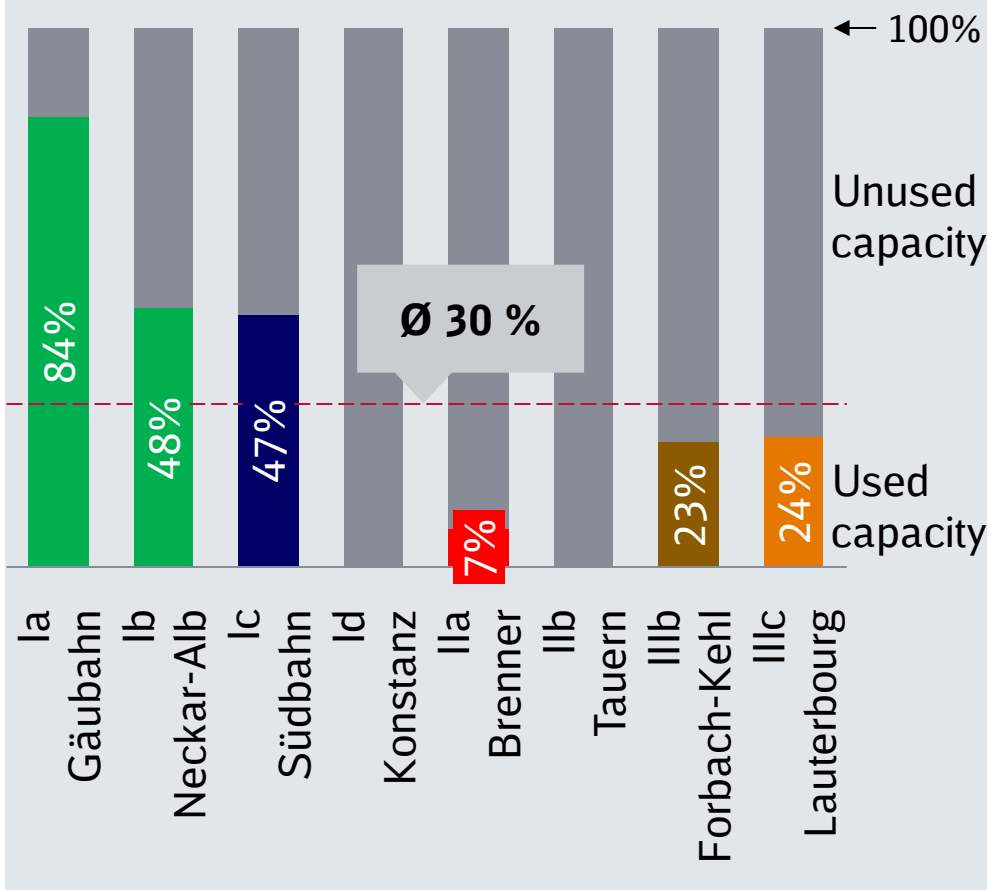
On average 30 % of the offered capacity was used

Share of path offer on the diversion routes

100 % = 7,888 paths = approx. 155 paths / day



Path usage on diversion routes



The capacity offer was only possible due to the good cooperation with neighbouring IMs, the RFC Rhine-Alpine, North Sea-Mediterranean and ScanMed.

Remark: Figures represent only information available to DB Netz; Trains deviated completely around Germany are missing

DB Netz took measures to reduce the impact of Rastatt and to improve the use of diversion routes

Crisis Management Communication

- Weekly telephone conferences on CEO-level of the countries involved
- Daily telephone conferences on working level between the concerned RUs, IMs and DB Netz

Capacity increase by additional measures

- Shifting of planned works and the reduction of track possessions
- Reduction of passenger transport services to increase capacity for rail freight
- Additional staff in the network control centre, the operations control centre in Karlsruhe and signal tower in Singen
- Allocation of additional sidings in Singen and Kehl

Support of RUs operations

- Free of charge provision of 7 diesel hauling-locomotives for non electrified line Tübingen-Horb
- Support of the RUs for setting up a pool of train drivers
- Additional shunting staff in the train station of Singen for support of operation
- After re-opening of the Gäubahn:
  provision of a shunting- and pushing locomotive (incl. shunting staff) in Singen

Nonetheless capacity on diversion routes could not be used fully due to several restricting factors for the RUs

Infrastructure

- Line parameters on diversion routes differ from the ones on the Rhine valley railway, e.g. in regard to
  - clearance gauge and
  - length of stable and passing sidings

Resources of RUs

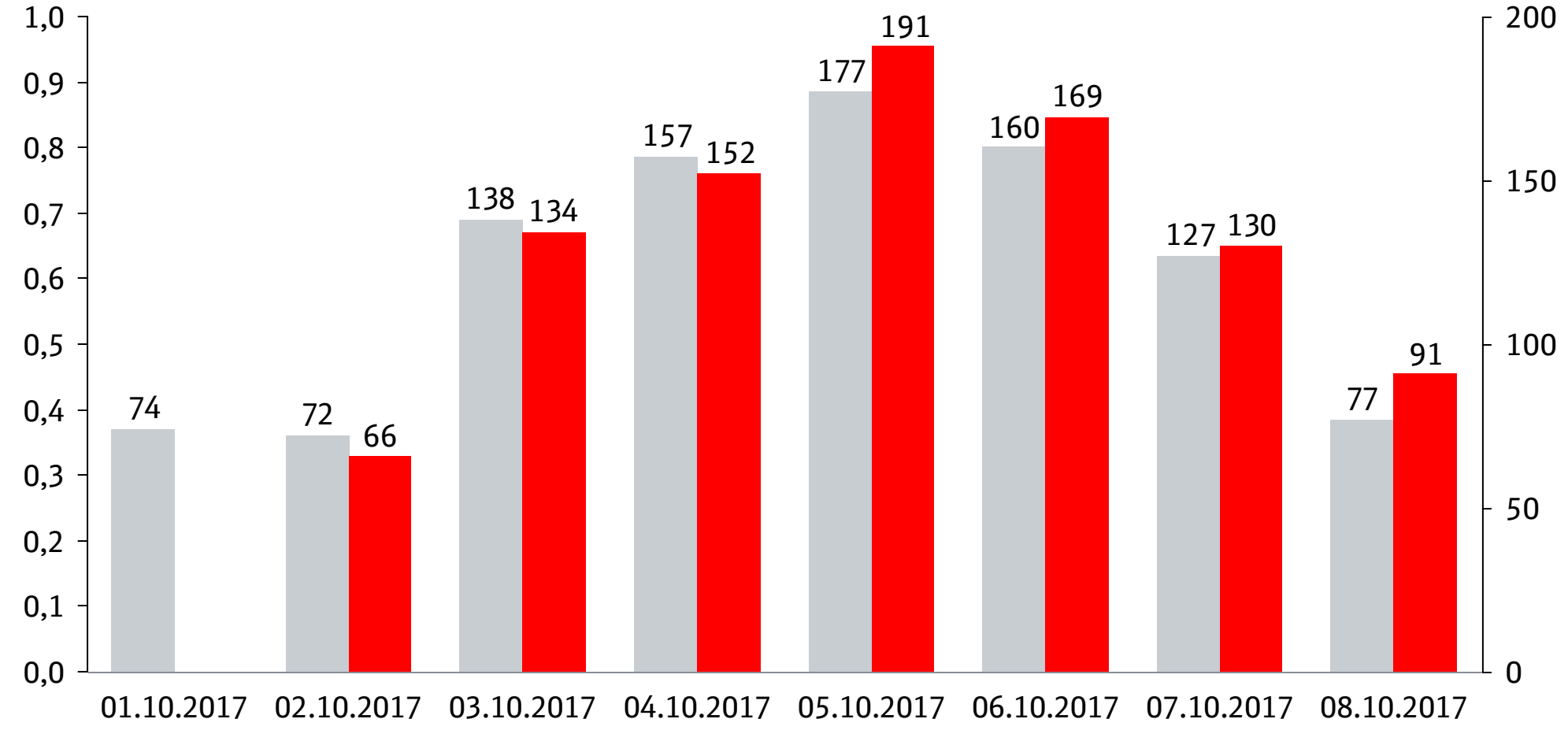
- Operating on diversion routes requires additional resources due longer turnaround cycles:
  - lack of train drivers
  - lack of locomotives

Interoperability

- Train drivers could not be assigned on certain routes due to
  - missing route knowledge and
  - required operational language
- Available locomotives where not always certified in certain countries on the diversion routes

The lesson is that in general the use of diversion routes in case of incidents must be improved by harmonizing line parameters and increased cross-border interoperability

On 02.10.2017 traffic on the Rhine valley railway restarted smoothly and volumes are on a normal level



Annual Timetable (Bank holiday on 3 Oct) Operated trains (incl. ad-hoc traffic) Remark: Low planned traffic volumes until 3 Oct due to bank holiday

Agenda

1. Rastatt incident
2. Rerouting of rail freight
3. Review

Since the reopening of the line an intensive review process is ongoing

Ongoing process

Gathering feedback from relevant stakeholders	Establishment of an action list	Starting projects at IMs/RFCs and other stakeholders	Presentation of first findings and further process
▪ Time: until November 2017	▪ Time: until December 2017	▪ Time: until February 2018	▪ Time: until March 2018
▪ Review surveys, workshops/ discussions with internal and external stakeholders	▪ Drawing conclusions from the feedback and developing an action list	▪ For most topics still to be defined, few projects already starting after feedback discussions	▪ Ongoing process, many requests for presentations and discussions with all stakeholders

First lessons learned have already been identified

„You never want a serious crisis to go to waste. And what I mean by that is an opportunity to do things that you think you could not do before."-Rahm Emanuel

1. Improving multi-national crisis management / contingency plan

- Agree on international crisis management process supported by RFCs
- Agree on process/check-list for communication supported by RFCs
- Develop multi-national re-routing overview for RFCs
- Define clear capacity allocation rules in case of incidents

2. Developing frame conditions for a flexible production in rail freight

- Harmonizing of operational rules and authorisation conditions (in case of incidents)
- Implementation of a second operating language

3. Improve infrastructure and international coordination of works

- Increase capacity on diversionary lines by improving the infrastructure
- Intensify coordination of works along rail freight corridors in cooperation with customers

DB Netz and RFC Rhine-Alpine will develop/propose measures in close cooperation with the relevant stakeholders (IMs, RUs, RFCs, etc.).

Contingency plans for multi-national incidents should include several elements – first ideas

		Explanations
1	International incident management	Criteria for major international incident: ■ Duration: proposal > 5 days ■ High impact on international rail freight Process proposal: ■ RFCs coordinate telcos/cooperation between heads of incident management of involved IMs until January 2018
2	Communication in case of multi-national incidents	Process proposal: ■ RFCs coordinate telcos of heads of communication of involved IMs ■ Communication of stakeholders by each involved IM based on agreed check-list for external communication ■ RFCs also inform their specific stakeholders until January 2018
3	Re-routing overview	Overview of diversionary routes for each RFC with information on infrastructure parameters, capacity indication, restrictions at RUs
4	Capacity allocation rules	Clear rules to be defined/agreed by Regulatory Bodies in Europe

We experience a high interest in the lessons learned from all kinds of stakeholders

DB Netz and RFC Rhine-Alpine already started a **review process** to gather feedback from all stakeholders. This feedback will be incorporated in the **lessons learned** and a consecutive **action plan**.

The timeline is not yet finalized but will include the following dates pre-set by the stakeholders:

■ 11-12 October	Busto Arsizio	Executive Board und Railway Undertakings/Terminal Advisory Group (RAG/TAG) of RFC Rhine-Alpine
■ 16 October	Brussels	Forum of TEN CNC Rhine-Alpine
■ 25 October	Verona	Railway Undertakings/Terminal Advisory Group (RAG/TAG) of RFC Scandinavian-Mediterranean
■ 26 October 2017		RU Dialogue
■ 9-10 November	Brussels	SERAC and NExBo
■ 16 November/ 17 January 2018		PRIME
■ 29 November	Rome	Management Board of RFC Rhine-Alpine
■ 06 December	Düsseldorf	HUPAC conference “Rastatt disaster: Never again”
■ 07 December	Vienna	Annual Rail Freight Day of EU and RNE
■ 11-12 December	Frankfurt	Executive Board of RFC Rhine-Alpine
■ 23 January 2018	Frankfurt	SBB Infrastruktur / DB Netz AG Management Board
■ 21 February 2018		SBB / DB CEO Meeting

Thank you for your attention