



Bundesministerium  
für Verkehr und  
digitale Infrastruktur

# Federal Transport Infrastructure Plan (FTIP) 2030

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## Transport Forecast 2030: Key assumptions (changes from 2010 to 2030)

|             |                                 |
|-------------|---------------------------------|
| Population: | 80,2 to 78,2 mio                |
| Workforce:  | 41,5 to 39,7 mio                |
| GDP :       | + 1,1 % p.a.                    |
| Export:     | + 3,6 % p.a.                    |
| Import:     | + 4,0 % p.a.                    |
| Cars:       | 631 to 694 (per 1000 residents) |

# Challenge

## Increase of transport performance til 2030 (compared to 2010)

- **Passenger Transport** 12 %
- **Freight Transport** 38 %

## Share (freight transport):

- **Rail** 43 %
  - **Road** 39 %
  - **IWW** 23 %%
- Maintenance
  - Limited federal budget



## German Federal Transport Infrastructure Networks

### **Federal Trunk Roads: 53.000 km**

- Federal Motorways/Autobahnen: 13.000 km
- Federal Roads/Bundesstraßen: 40.000 km  
Federal Executive Administration (Bundesauftragsverwaltung) =  
(„Federal States“ act on behalf of the Federal Government)

### **Federal Railways: 33.500 km**

Owner DB Netz AG, majority of shares state-owned ( constitutionally determined)

### **Federal waterways: 7.300 km**

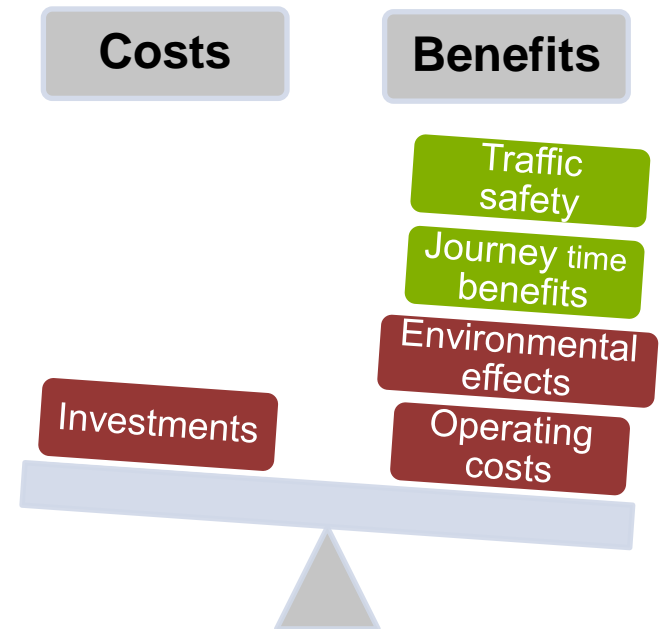
Federal administration

## The FTIP as the central regulatory element of transport infrastructure policy

- Federal Government is responsible for the construction and maintenance of all federal transport infrastructure
- Federal Transport Infrastructure Plan...
  - includes maintenance, upgrading and new construction.
  - covers three modes of transport (road, rail, inland waterway).
  - identifies the infrastructure requirements and the viability of projects.
  - is, as a rule, valid for about 10 - 15 years (new plan: 2016 – 2030)
  - drafted by the Federal Government.
  - start of the planning process.
  - investment, **not a financing plan.**

## Summary: Prioritization of Projects

- Comparison of the **network** *with* and *without* the project in the year **2030** (forecast)
- Assessment of the project impacts
- *Positive* versus *negative* impacts
  - Benefit-cost analysis
  - Environmental impacts
  - Spatial impact assessment
  - Urban development assessment



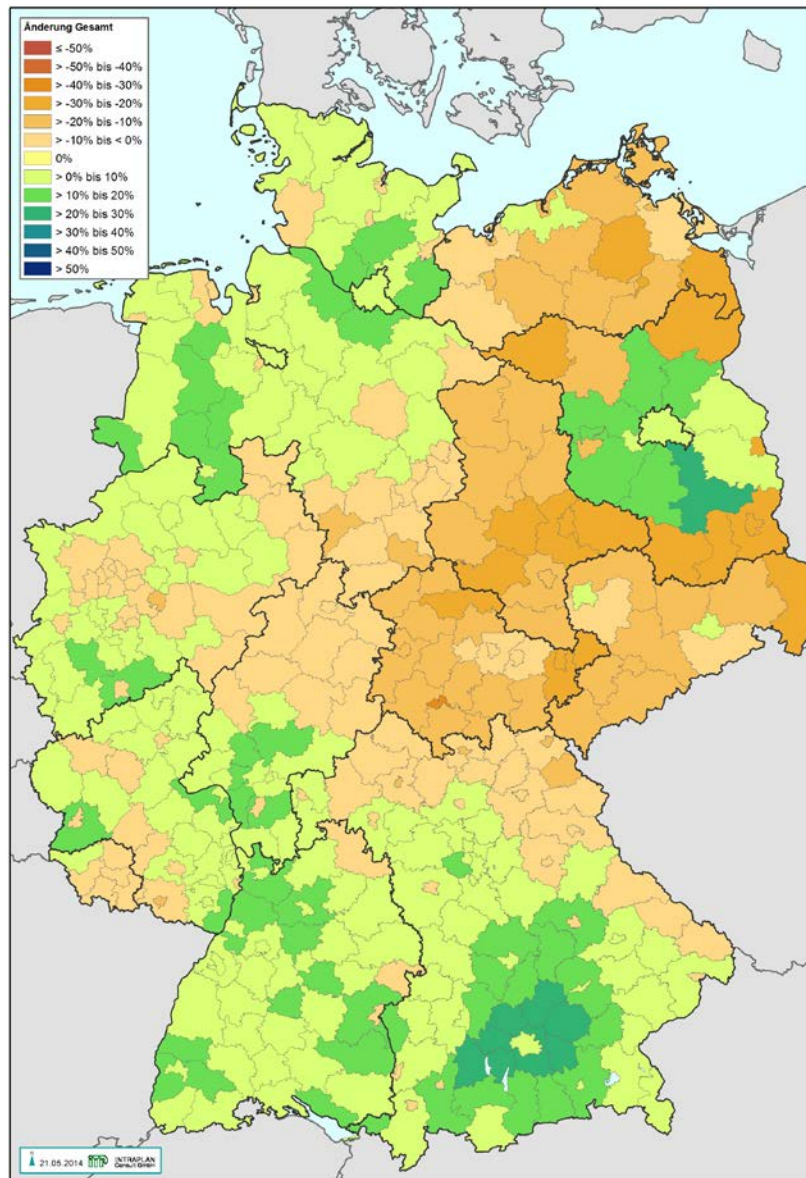


# Estimated Financing Needs

|                               | Total Investment<br>(in Mrd. €) | Other<br>Investment<br>(2016-2030) | Replacement/<br>Maintenance<br>(2016-2030)<br><br>(incl. replacement<br>share in upgrading<br>projects) | Upgrading/<br>New construction<br>(2016 -2030)<br>(without<br>replacement/mainte<br>nance share) |                            | Upgrading/new-<br>building<br>„overrun“<br>(ab 2031)<br><br>New Projects<br>VB/VB-E<br>(incl.<br>maintainance/re<br>placement share) |
|-------------------------------|---------------------------------|------------------------------------|---|--|----------------------------|--|
|                               |                                 |                                    |   | Ongoing<br>projects<br>(Lfd/FD)  | New<br>Projects<br>VB/VB-E |  |
| Federal Trunk Roads           | <b>130,7</b>                    | 12,0                               | 67,0  | 15,9   | 19,3                       | 16,4   |
| Federal Railways              | <b>109,3</b>                    | 7,4                                | 58,4  | 8,4  | 17,2                       | 17,9   |
| Federal Waterways             | <b>24,5</b>                     | 2,2                                | 16,2  | 0,9  | 1,8                        | 3,5  |
| <b>All modes of transport</b> | <b>264,5</b>                    | <b>21,6</b>                        | <b>141,6</b>  | <b>25,2</b>  | <b>38,4</b>                | <b>37,8</b>  |



# Forecast 2030: regionale disparities







# Bottleneck Analysis Road

**Autobahnabschnitte mit gelegentlicher oder häufiger, kapazitätsbedingter Staugefahr**  
Netz: Bezugsfallnetz 2030 lt. BVWP 2030, Verkehrsnachfrage 2030

- häufige Staugefahr (an mehr als 300 Stunden pro Jahr)
- gelegentliche Staugefahr (an mehr als 100 Stunden im Jahr)
- Autobahnnetz (Bezugsfall)



**Autobahnabschnitte mit gelegentlicher oder häufiger, kapazitätsbedingter Staugefahr**  
Netz: Zielnetz 2030 lt. BVWP 2030, Verkehrsnachfrage 2030

- häufige Staugefahr (an mehr als 300 Stunden pro Jahr)
- gelegentliche Staugefahr (an mehr als 100 Stunden im Jahr)
- Autobahnnetz (heutiges Netz und Vordringlicher Bedarf (VB-E + VB-II))





# Bottleneck Analysis Rail

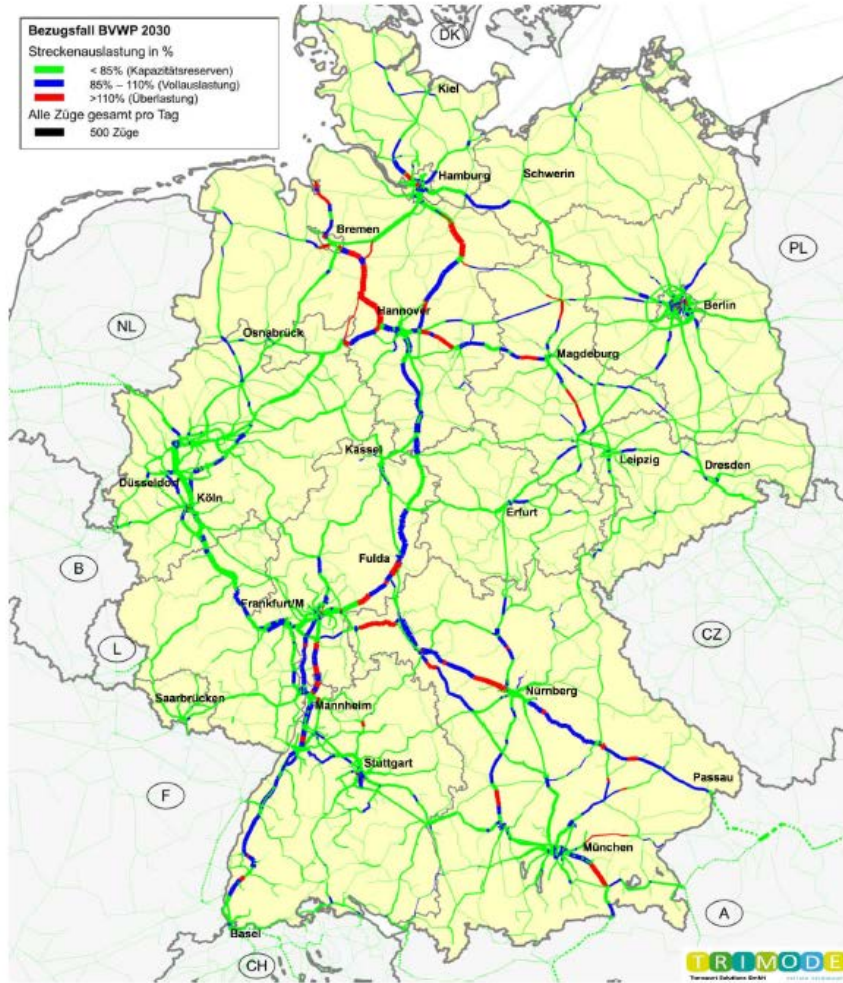


Abbildung 7: Engpassanalyse Schiene – Bezugsfall

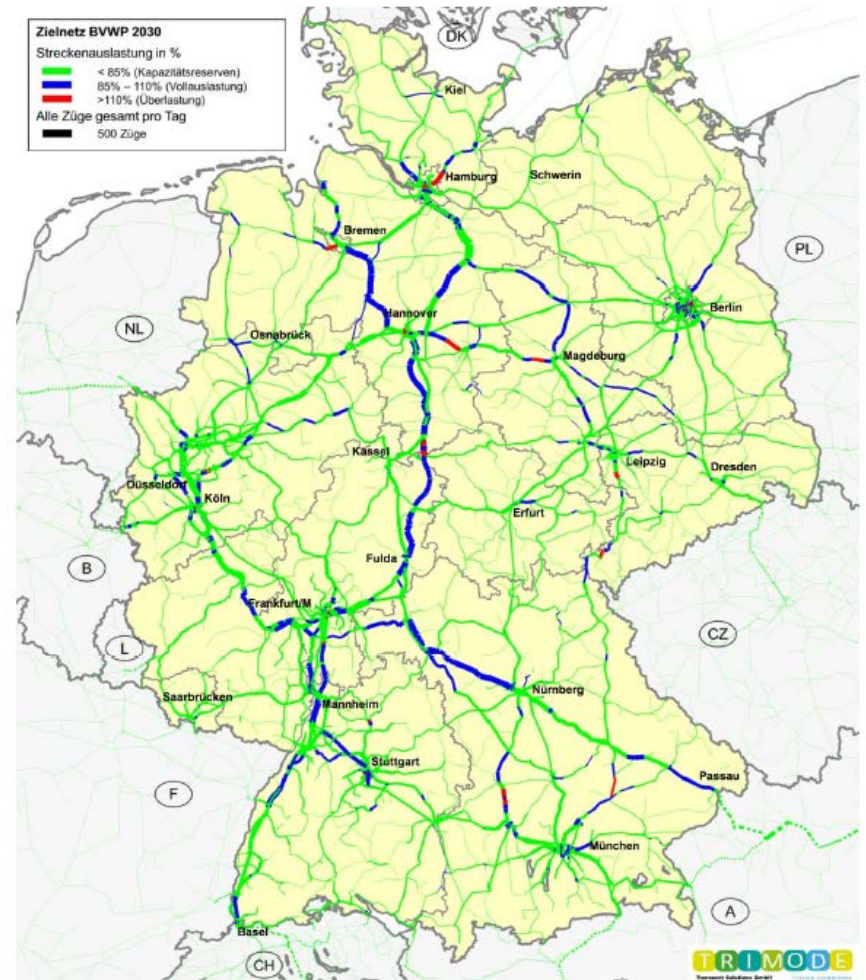


Abbildung 8: Engpassanalyse Schiene - Zielnetz



# Bottleneck Analysis IWW





# Road Projects on Corridor SCM:

| Laufende und fest disponierte Projekte FD |      |  | Kosten (1000 €) |
|---|------|--|-----------------|
| Land                                      | BAB  | Abschnitt  |                 |
| BY  | A3   | AK Biebelried – AK Fürth/Erlangen FD-E           | 1.050,0         |
| BY  | A99  | AK Mü-Nord – AS Aschheim/Ismaning FD-E           | 99,0            |
| BB  | A10  | AD Potsdam – AD Nuthetal                         | 142,2           |
| HB  | A7   | AD Hamburg/NW – LGr. SH/HH                       | 293,0           |
| HB  | A7   | AS HH-Othmarschen – AD HH/NW                     | 463,0           |
| HB  | A26  | AD HH-Süderelbe - Rübke                          | 238,5           |
| NI  | A7   | AS Göttingen – AD Salzgitter                     | 644,1           |
| NI  | A7   | AD Walsrode – AS Fallingbostel                   | 58,0            |
| SH  | A7   | LGr SH / HH – AD Bordesholm                      | 792,8           |
| SH  | B207 | Puttgarden – Heiligenhafen-Ost                   | 249,4           |
| TH  | A9   | AS Lederhose – LGr TH/BY                         | 273,0           |
|   |      |  | <b>4.303,00</b> |
| <b>Neue Vorhaben VB und VB-E</b>          |      |  |                 |
| BY  | A8   | AK M-Süd – AS Holzkirchen                        | 167,2           |
| BY  | A8   | AS Holzkirchen - AD Inntal                       | 413,8           |
| BY  | A9   | AS M-Frankfurter Ring – AS M-Schwabing           | 22,4            |
| BY  | A92  | AK Neufahrn – AD Flughafen-M                     | 92,9            |
| BY  | A94  | AK M-Ost – AS Markt Schwaben                     | 46,5            |
| BY  | A94  | AK M-Ost – AS Pocking                            | 526,3           |
| BY  | A99  | AK M-Nord – AK M-Süd                             | 348,0           |
| HB  | A27  | AK Bremen – AS HB-Überstadt                      | 112,7           |
| HH  | A1   | AD Hamburg-SO – AS HH Stillhorn                  | 259,1           |
| HH  | A7   | Hochstraße Elbmarsch                             | 368,5           |
| NI  | A7   | AS Soltau-O – AS Fallingbostel                   | 147,6           |
| NI  | A7   | AS Hildesheim - AD Salzgitter                    | 86,7            |
|   |      |  | <b>2591,7</b>   |
| <b>Neue Vorhaben WB mit Planungsrecht</b> |      |  |                 |
| BY  | A9   | AK Nürnberg – AK Nürnberg-Ost                    | 61,2            |
| BY  | A9   | AD Holledau – AK Neufahrn                        | 413,5           |
| BB  | A10  | AD Werder – AD Havelland                         | 568,0           |
| BB  | A24  | AS Kremmenr – AD Wittstock/Dosse                 | 396,8           |
| HH  | A1   | AS HH Stillhorn – LGr. HH/NI                     | 233,6           |
| NI  | A7   | AD Walsrode – AD Hannover-N                      | 237,0           |
|   |      |  | <b>1910,1</b>   |
| <b>Neue Vorhaben Weitere Bedarf WB</b>    |      |  |                 |
| HE  | A4   | AD Kirchheim – AD A4 / A44                       | 590,2           |
| HE  | A7   | AD Kirchheimer Dreieck – AD Hattenbacher Dreieck | 78,7            |
| HE  | A7   | AS Kassel-N – AD Kassel-S                        | 133,3           |
|   |      |  | <b>802,2</b>    |
| <b>Gesamt</b>                             |      |  | <b>9.607,0</b>  |



# Rail Projects on Corridor SCM:

| Rail   |                 |
|--|-----------------|
| Projekte VB-E und VB   | Kosten (1000 €) |
| Ausbaumaßnahmen Hamburg – Bremen („Alpha E“ / ex-Y-Trasse)           | 3.000,0         |
| ABS/NBS München-Rosenheim-Kiefersfedern (Brennerzulauf)              | 1.320,8         |
| ABS/NBS Nürnberg-Erfurt  | 1.143,6         |
| ABS/NBS Hamburg-Lübeck-Puttgarden (FBQ Hinterlandanbindung)          | 1.517,9         |
| ABS/NBS Burgsinn-Gemünden-Würzburg-Nürnberg                          | 223,1           |
| ABS Hof-Marktredwitz-Regensburg (VB-E)                               | 790,2           |
|  | 7.995,6         |
| <b>Potenzieller Bedarf (potential demand)</b>                        |                 |
| ABS/NBS Nürnberg-Erfurt (2-gl. NBS Nürnberg-Kleinreuth – Eltersdorf) |                 |
| München - Regensburg   |                 |
| Weiden - Hof   |                 |
| Augsburg - Donauwörth  |                 |
| ABS Hamburg - Ahrensburg   |                 |
| Ausbau Knoten Hamburg und Knoten München                             |                 |