

# The "Deutschlandtakt" and its consequences for rail infrastructure

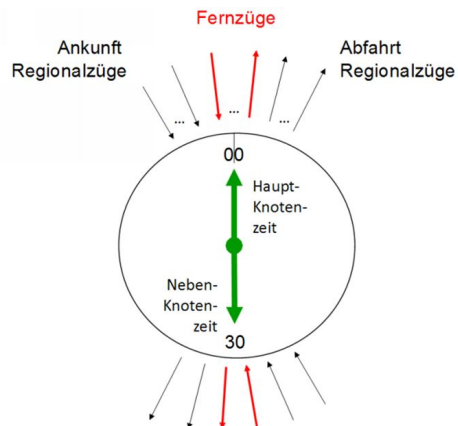
RailFreight Connects, Bremen, Germany

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## The Logic behind the "Deutschlandtakt"



Source: Prof. Dr. Wolfgang Hesse (Munich), in Eisenbahn-Revue International

- "Deutschlandtakt" - integrated and nationally synchronised timetable.
- Short and long-distance passenger traffic coordinated with each other to minimise waiting times and reduce overall travel times in passenger traffic.
- Step-by-step introduction in Germany until 2070 - based on Swiss role model.

**EUROFIMA - attractive rolling stock financing:** EUROFIMA was established in 1956 based on an international treaty signed by 25 European sovereign states so far. It fulfils a non-profit mission to support the development of public passenger rail transportation in Europe and it supports its shareholder railways as well as other railway bodies in renewing and modernising their equipment. Today it is represented by its **CEO, Christoph Pasternak**.



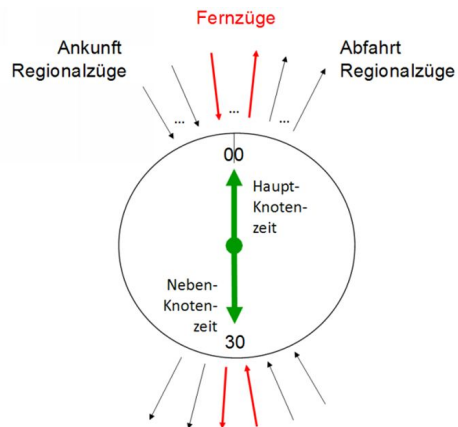
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6 59		<b>IC 3</b>	<b>Basel SBB</b> <sup>in</sup>	Ⓞ 15	
33					
14					
<b>7 00</b>		<b>Gleis</b>			
44					
22		7 00	<b>S6</b>	<b>Uetikon</b> via Z. Stadelhofen – Z. Tiefenbrunnen	43/44
22		7 01	<b>S6</b>	<b>Baden</b> via Z. Hardbrücke – Z. Oerlikon	41/42
34		7 01	<b>S11</b>	<b>Seuzach</b> via Z. Stadelhofen – Winterthur	43/44
42		7 02	<b>IC 8</b>	<b>Brig</b> via Bern – Thun – Spiez – Visp <sup>in</sup>	31
21		7 03	<b>IC 5</b>	<b>Rorschach</b> via Z. Flughafen – St. Gallen <sup>in</sup>	33
44		7 04	<b>S3</b>	<b>Wetzikon ZH</b> via Zürich Stadelhofen – Stettbach – Dietlikon – Effretikon – Illnau	43/44
42		Ⓞ 7 04	<b>S20</b>	<b>Zürich Hardbrücke</b>	41/42
13		7 04	<b>IC 5</b>	<b>Genève-Aéroport</b> via Aarau – Solothurn – Neuchâtel <sup>in</sup>	32
is					
44		Ⓞ 7 05	<b>S10</b>	<b>Zürich Triemli</b> via Zürich Selnau	22
42		7 05	<b>RE</b>	<b>Schaffhausen</b> via Zürich Oerlikon – Bülach	5
44		7 05	<b>IC 8</b>	<b>Romanshorn</b> via Zürich Flughafen – Winterthur – Amriswil <sup>in</sup>	34
42		7 05	<b>IC 2</b>	<b>Lugano</b> via Zug – Arth-Goldau – Bellinzona <sup>in</sup>	Ⓞ 8 Ⓞ 9
44		7 06	<b>IR 16</b>	<b>Bern</b> via Baden – Aarau – Olten	Ⓞ 13 Ⓞ 18
11					
33		7 07	<b>S8</b>	<b>Pfäffikon SZ</b> via Zürich Wiedikon – Zürich Enge	31
44		7 07	<b>S9</b>	<b>Schaffhausen</b> via Z. Hardbrücke – Z. Oerlikon	41/42
16		7 07	<b>IC 3</b>	<b>Chur</b> via Sargans – Landquart <sup>in</sup>	10
22		Ⓞ 7 08	<b>S4</b>	<b>Langnau-Gattikon</b> via Adliswil	21
7		7 08	<b>IR 37</b>	<b>Basel SBB</b> via Lenzburg – Aarau – Sissach – Liestal	14
10		7 09	<b>S5</b>	<b>Zug</b> via Z. Hardbrücke – Birmensdorf ZH	41/42
10		7 09	<b>S15</b>	<b>Rapperswil SG</b> via Z. Stadelhofen – Wetzikon	43/44
10		7 09	<b>IR 13</b>	<b>St. Margrethen SG</b> via Zürich Oerlikon – Zürich Flughafen – Winterthur – St. Gallen – Rorschach	12
12		Ⓞ 7 10	<b>S21</b>	<b>Regensdorf-Watt</b> via Z. Hardbrücke – Z. Oerlikon	18
31		7 10	<b>IR 36</b>	<b>Basel SBB</b> via Zürich Altstetten – Dietlikon –	32

## Example: Zurich Main Station at 07:00 am

- Except for S-Bahn trains, all other short-distance and long-distance trains leave between 06:59 and 07:10. Not a minute later ...
- The next "wave" of short- and long-distance trains departing starts at 07:30 and ends at 07:39.
- Basically, the same rule applies to incoming short- and long-distance trains.

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Source: Prof. Dr. Wolfgang Hesse (Munich), in Eisenbahn-Revue International

## The advantages and disadvantages of the "Deutschlandtakt"

### Advantages

- § Shorter travel times for connecting services, more frequent train connections, denser intervals.
- § Less planning effort (once set up), easy to remember timetables, better integrated local public transport.
- § Theoretically **improved predictability / more slots for freight traffic.**

### Disadvantages

- § Longer travel times on direct connections.
- § **Very high investment in rail infrastructure required (e.g., more switches, overtake possibilities, etc.).**

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## Example: Rail Infrastructure Investment



Source: DB Netz

- The 'ideal' timetable comes first, only then the expansion, construction and further development of rail infrastructure.
- Infrastructure investment based not on an "as quick as possible" approach (HSR), but on an "only as much as needed" efficient approach.
- Example: cutting travel times from D to A by 2 mins. and not by 15 mins., even though technically doable.
- Still, high investments across the whole railway network needed – and not concentrated on individual projects.

# The "Deutschlandtakt" and its consequences for rail infrastructure

## Pro-Kopf-Investitionen des Staates in die Schieneninfrastruktur

Auf Bundesebene in ausgewählten europäischen Ländern, in Euro, 2022



Quelle: Allianz pro Schiene | 07/2023 | auf Basis von BMV, ETV (Zusammenstellung VÖV), BfM, MMTP; SGI Verkehr GmbH  
Lizenz: © Nutzung frei für redaktionelle Zwecke unter Nennung der Allianz pro Schiene

Source: Allianz pro Schiene 7/2023

§ Increased rail infrastructure investments planned. Funds available app.

## Rail Infrastructure Financing

§ 12.0 bn EUR p.a. from state budget

§ 12.5 bn EUR until 2027 from Climate & Transition Funds (KTF)

§ 3.0 bn EUR from DB

§ Investment needs significantly higher (up to 45 bn EUR). Money isn't everything. But: **private capital is available to support rail infra.**

§ **Yet: legal limitations** in Germany's constitution and the *Bundesschienenwegeausbaugesetz* (*we love long words*).

*Beschleunigungskommission Schiene* (*Acceleration Commission for Railways*) improved the financing situation but **left out private capital.**

§ **Therefore, external financing solutions for rail infra not available.**