



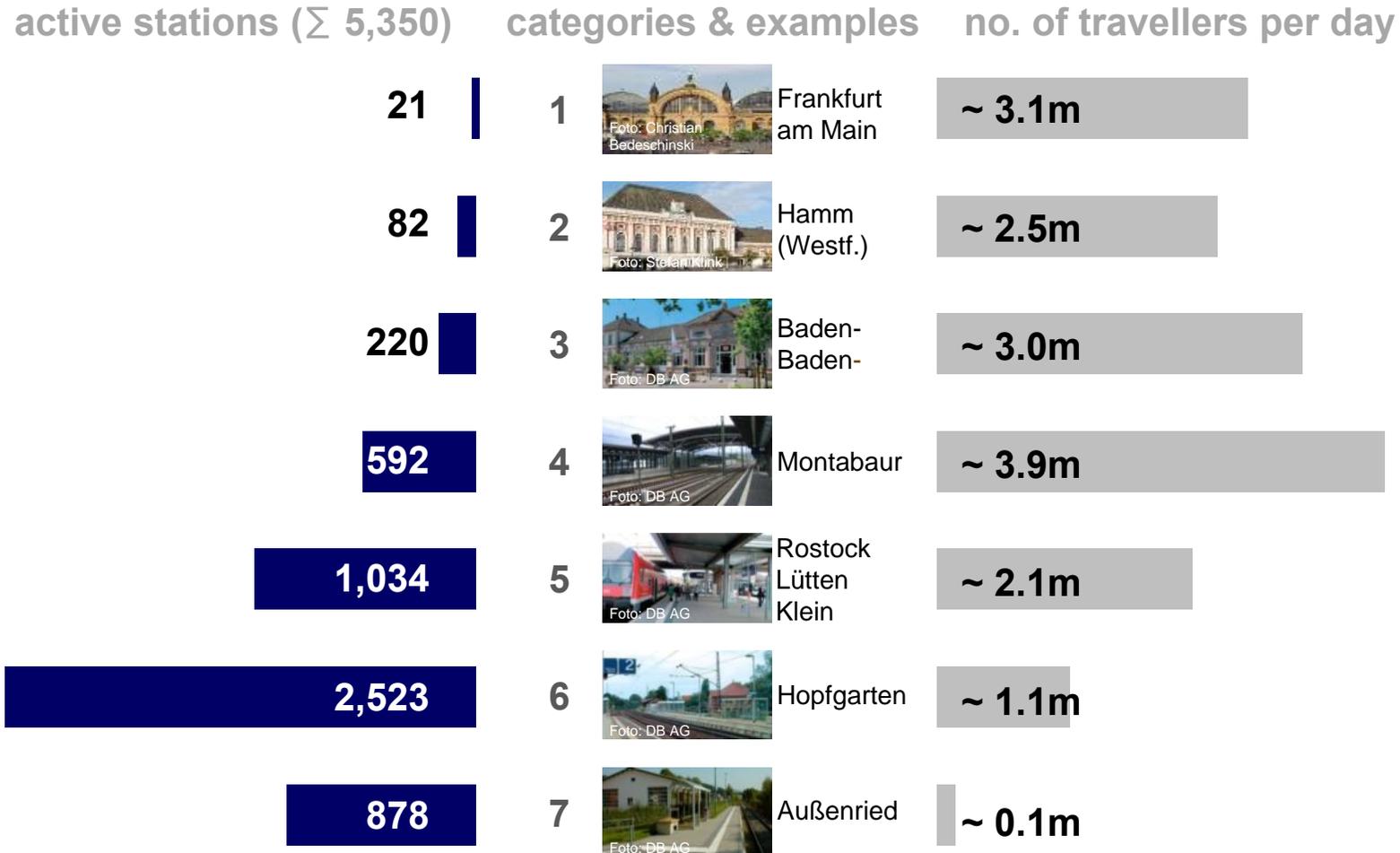
# STATION INITIATIVE OF DEUTSCHE BAHN STATION&SERVICE

17-18 October 2013

Marcus Paul  
Head of Finance/Real Estate, DB Station&Service, Germany  
Session 2-A "Business and services"

# Today, our portfolio comprises 5,350 stations and is subdivided into seven categories

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Passenger volume as average values over different periods

Mr. Paul – DB Station&Service – Station initiative

17-18 October 2013

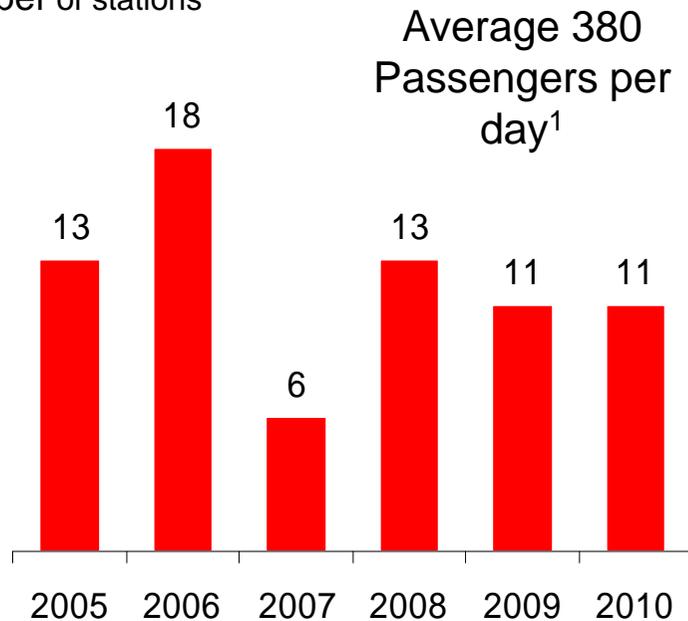


# In the last years few new stations were built – these however received high acceptance in society

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## Building of new stations DB 2005-2010

Number of stations



Drivers for building of new stations were usually local authorities

## Press comments on opening of new stations

“We want to be there where people live, shop and work. Only then public transport serves its purpose.

“New Station Koblenz-City: In the heart of town – **closer, faster, in the center.**“

“**Increasing quality of life** by new track connection now also in Bielefeld-Senne.“

“**Happy customers** in Bruck-mühl! Deutsche Bahn builds a new station in 2012.“

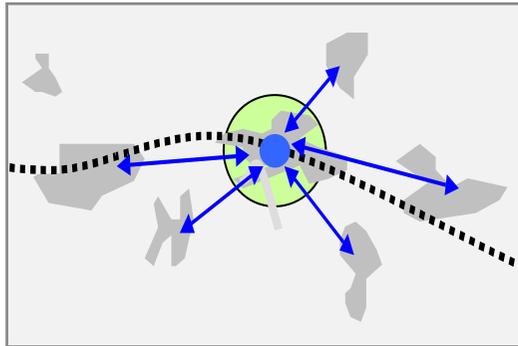
**DB improves the mobility in society and improves the attractiveness of the region**

<sup>1</sup> Adjusted average number of passengers 2010, n.a. for 11 stations  
Mr. Paul – DB Station&Service – Station initiative

# The station network in Germany and the settlement areas have changed in the course of time

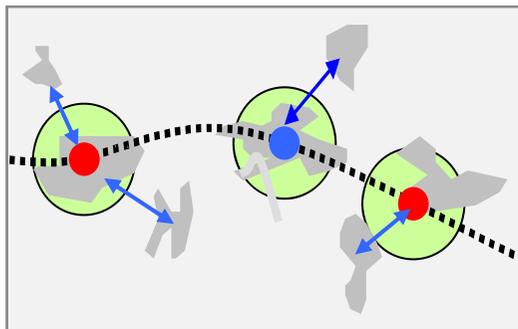
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## Status Quo



- **Railway stations are not located there, where people live and work today**
- **Distances more than 1.2 km (city area) or 2.4 km (country area) to the next railway station are hardly accepted anymore**

## Solution



- **Systematic construction of new railway stations close to origins and destinations of sufficient size**
- **Use of sprint strong locos allow additional stops without significant loss of travel time compared with the status quo**



## Suggestion

New construction of **especially smaller railway stations** in Germany recruits many **new customers**

# To identify possible new railway stations modeling methods and forecast of demand are applied

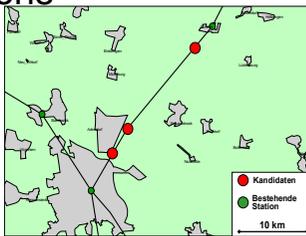
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## Model

### Detailed modeling of the railway network in Germany

Input variables

- 30,000 settlement areas
- 250,000 relations in the origins-destinations-matrix
- 34,000 track kilometers
- 5,400 existing railway stations
- 30,000 possible railway stations



## Method

### Forecast of demand

- Travelers (entrance and exit) minus **cannibalization effect**
- **Estimation of construction costs and current costs**
- Estimation formula for station platforms, building land improvements, and if so, elevators
- Estimation of costs for cleaning and maintenance **Optimization procedures**
- Selection of stations, which make sense from an infrastructural and economic point of view
- Consideration of interdependencies between railway stations

## Result

### Suggestions for new railway stations

- Objective: Development plan of railway stations in Germany (assessment of timetable and quantity survey of construction)



# A detailed investigation for each station and its surrounding verifies the potential

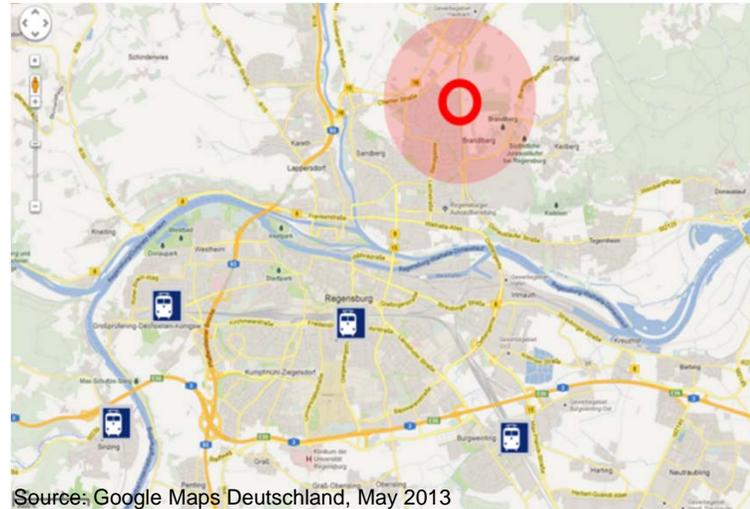
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## Regensburg-Wutzlhofen

Stationtype:	Suburban station
Line Number:	5860
Operator:	DB Regio, Vogtlandbahn
Cycle:	60 Min.
Platforms:	2
Inhabitants:	5,553
Travelers:	450
Thereof new customers:	440
New customers 2030:	460
Construction costs:	1.67 Mio. EUR

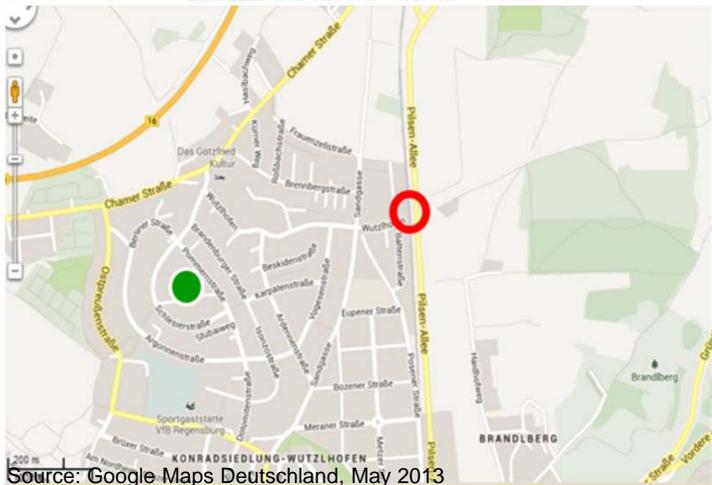
Source: DB Regio AG, Streckenkarte Bayern, November 2011



## Legend

- Possible new station
- Further new station
- Commuting area
- Existing station

Source: Google Maps Deutschland, May 2013



## Legend

- Possible new station
- Appearance focus
- Settlement focus
- Existing station

Source: Google Maps Deutschland, May 2013



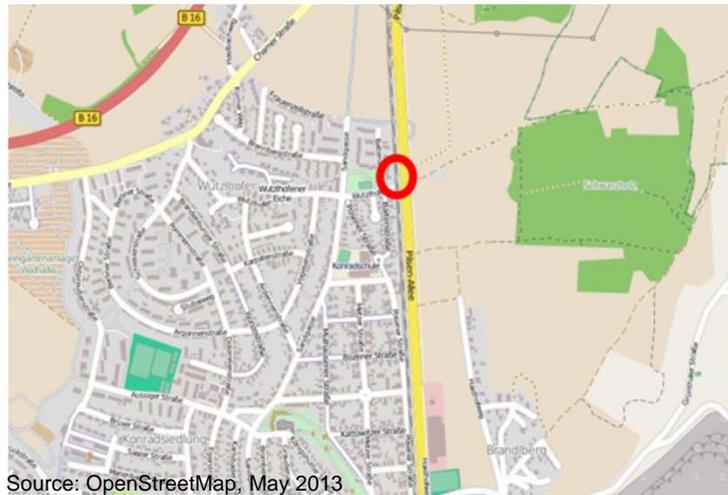
## Legend

- Possible position of platform

Source: Google Maps Deutschland, May 2013

# The analysis includes also information on other carriers such as buses and a detailed planning draft

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Legend

○ Possible new station

Source: OpenStreetMap, May 2013



Legend

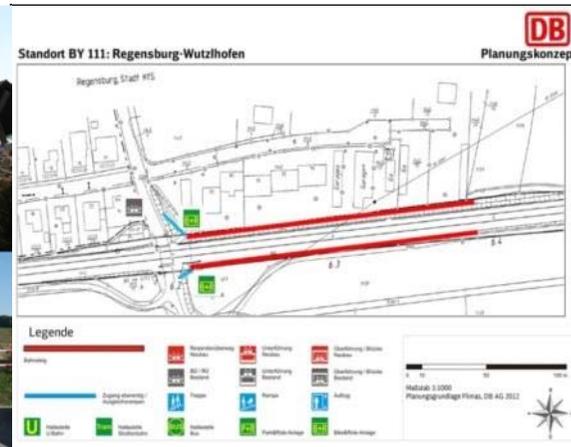
○ Possible new station

- Train
- Urban-train
- Tram
- Subway
- Ferry
- Trolleybus
- Bus
- Bus stop

Source: OpenStreetMap, May 2013



Source: Kehrler Planung GmbH, May 2013



Source: flimasWEB, May 2013

# The target is a comprehensive master plan of possible new railway stations in Germany

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## Current approach

- Automatic model optimization to find possible train stops within DB rail network (**basic set**)
- Rough analysis with **infrastructural study** to identify stations that are practicable
- **Detailed analysis & validation** with manual check of passible railway stations
- Assessment of **timetable feasibility and construction**

## Target

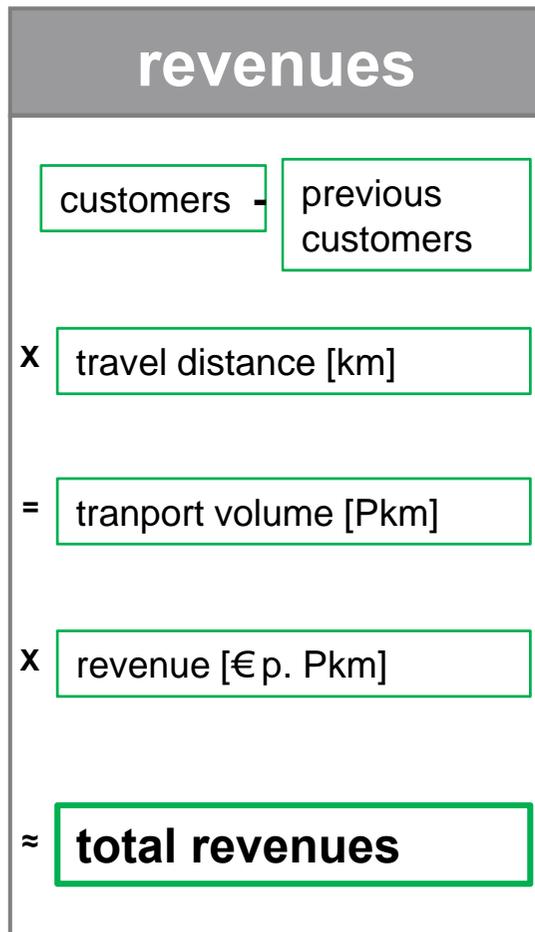
- Comprehensive **master plan** of possible new railway stations
- Indication where to invest in **sustainable infrastructure**

## Station initiative

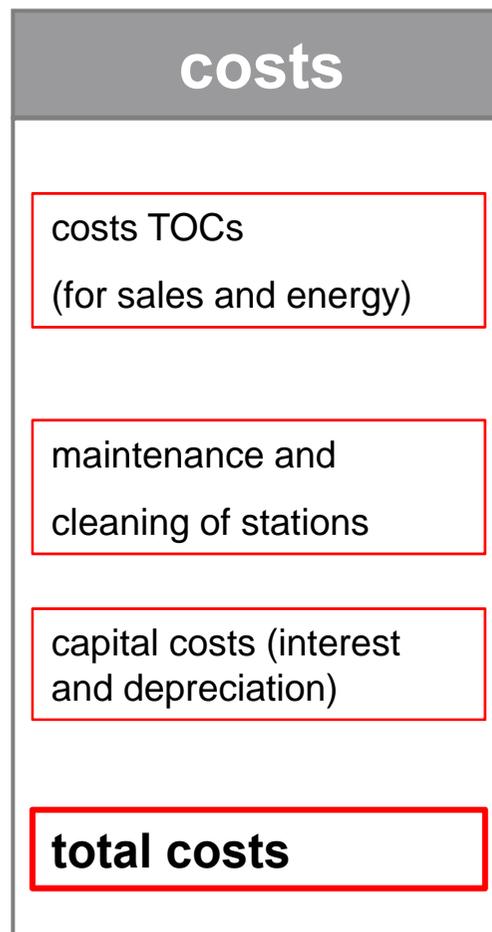


# More revenues from ticket sales than additional costs – an approach for other railway companies?!

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■



**= profit**

## chance for other railway companies:

- generate more customers and more profit by building new stations along the existing railway-network
- shifting of demand (from private car to public transport)
- good publicity and positive image effects

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...Thank you

for your kind attention

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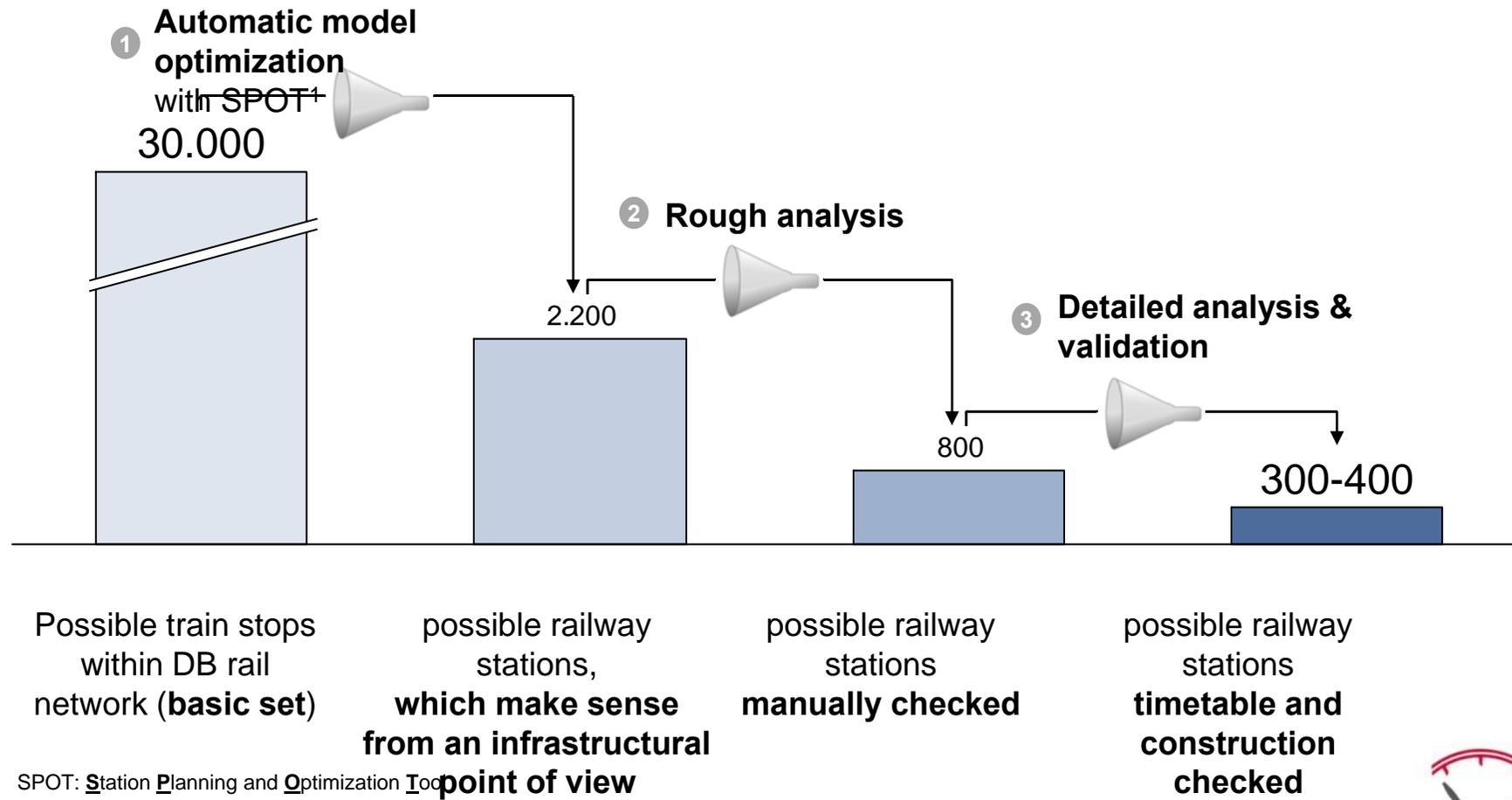
[www.bahnhof.de](http://www.bahnhof.de) |  
[www.deutschebahn.com](http://www.deutschebahn.com)

# The model results were reviewed in a multi-stage filter process

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Backup

## Filter process of possible railway stations



1 SPOT: Station Planning and Optimization Ioop **point of view**

Source: Project Stationsoffensive

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# There are different sources of financing

