



# Deutsche Bahn

## Responding to trends in urban mass transit

UMI 2020



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सत्यमेव जयते  
GOVERNMENT OF INDIA  
MINISTRY OF HOUSING AND URBAN AFFAIRS



# Deutsche Bahn International Operations

- part of Deutsche Bahn Group, one of the largest mobility providers in the world
- operates and maintains passenger and freight railway systems outside of Europe

# We use a diagnostics & analytics solution for condition monitoring that cuts costs, optimises availability and improves customer experience



## DB's IoT solution for asset monitoring

- DIANA = Diagnostics & Analysis platform
- real-time processing
- real-time alerting of faults
- trend and long-term analysis

> 31,900

Monitored assets in the infrastructure

60%\*

Reduction of costs

> 700,000 measurements and processing of > 1 Mio condition data per day

Up to 50%\*  
Reduction of disruptions

> 3,000 km  
of operated track are monitored and analysed

3,500 users  
(Desktop and mobile apps)

### Infrastructure assets



31,000 switches



1,000 point heaters



600 temperature sensors



cable insulation in pilot phase



270 level crossings



~3,000 km by 8 revenue trains



44 lifting units



2 ICEs



5,000 vehicles by 2025



Checkpoints in pilot phase

### Rolling Stock assets

DIANA: pending Trademark

\*for point machines



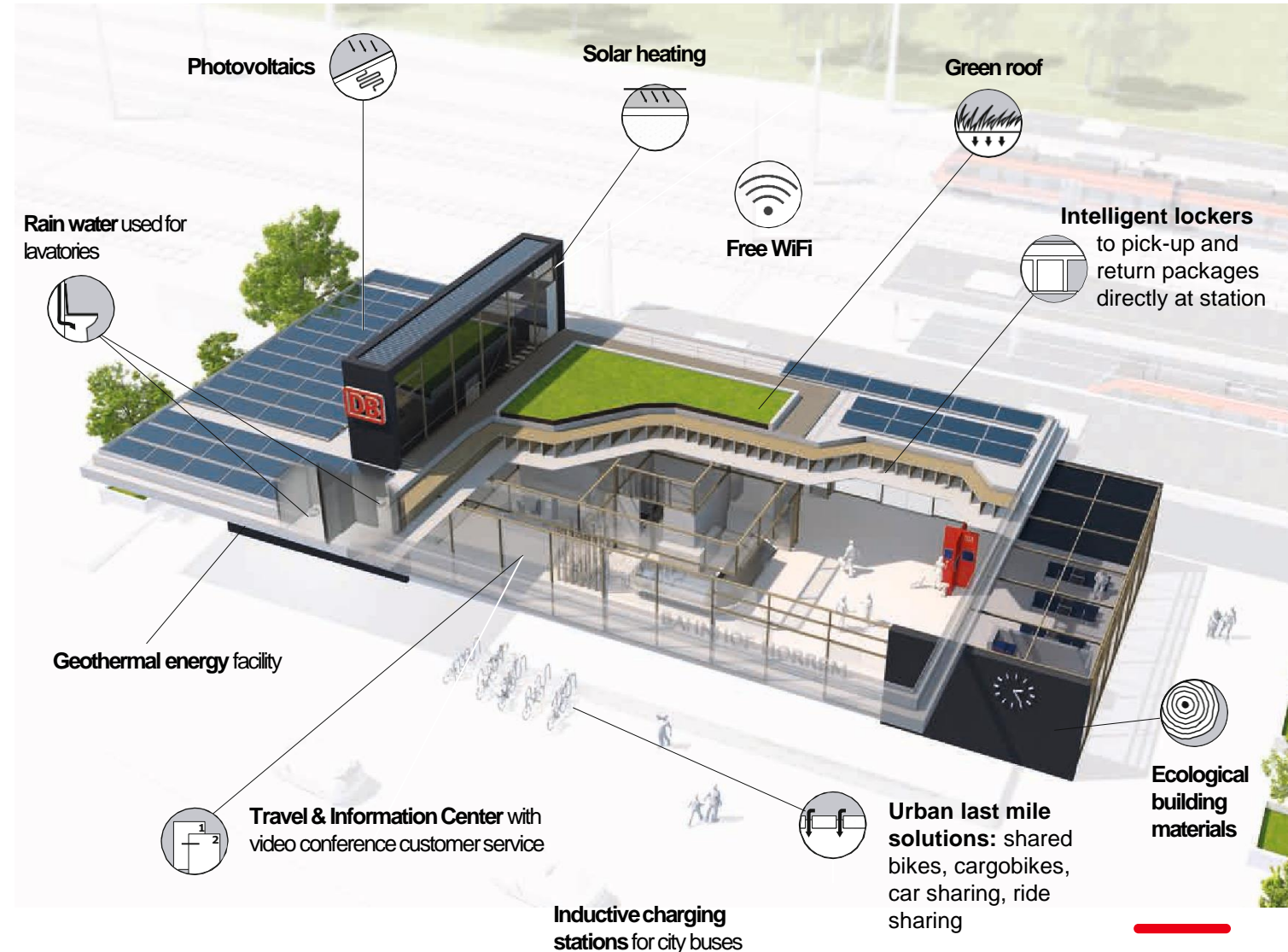
# We reimagine stations as passenger-centric, sustainable mobility hubs



13<sup>th</sup> Urban Mobility India Conference 2020

## Example: Station in Horrem, NRW, Germany

- **Green and fully carbon-free train station** running on photovoltaic energy, geothermal energy and a solar thermal hot water system
- **Passenger-centricity is in every detail**
  - Free WiFi
  - Seats in the station have USB-charging ports
  - Barrier-free construction
  - Travel & Information Center offers the possibility to talk to customer service staff by videoconference (cuts cost and adds value for customers due to 24/7 availability)
- **Sustainable first and last mile solutions**
  - Bike sharing
  - Cargobikes (urban logistics)
  - Car sharing
  - Ride sharing
  - Electric city busses



# We take a 360° perspective on customer communications, emphasising digital channels

Direct, transparent and real-time communication is key to an excellent customer experience, even more so in times of crisis or uncertainty.

## Example: S-Bahn Berlin

**Youtube Channel** for future plans, initiatives, construction projects etc.

**Podcast** to share updates regarding planned projects, COVID-19, etc. with an interested audience

**Website** for information, bookings and feedback

In-station digital and print **info-boards**

Innovative **Berlin Connect App** for booking **multi-modal transport solutions** (S-Bahn, Metro, Bike-, Scooter- & Carsharing, Car-pooling, On-demand mobility and more)

**Twitter** for real-time info on current developments

**Face-to-face conversations** by S-Bahn Berlin **employees** and **top managers** with customers during annual 'Station-Tour'

Bi-weekly **passenger magazine** informing about construction plans, schedules and more



# Delivering excellence in mobility and transport

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