SMART STATIONS IN SMART CITIES
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Station Green
The sustainable station building of DB

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2a Smart Design
I.SBO the architects of DB

- 5,367 Stations in use
- 1,500 Stations with station building
- 15,4 Mio. Travellers per day
- 3 Mrd. Travellers and visitors per year
- 5,093 employees
- 1 architecture office
The Components

Solar Panels
Application of photovoltaic modules on 346m² roof area - 31,000 kWh per year peak

Active/Passive Solar Energy
Possible use of commuters for the heating of service water

Daylight use/LED
Daylight will be recaptured and channeled to illuminate surfaces inside the building. Use of LED technology for illumination.

Green Roof
Intensive planting of grass on 150m² avoids heat-island-effect. Rainwater is collected in tanks for percolation.

Timber Structure
Primary structure made of pine and timber

Rainwater
Reserved for public toilets

Geothermal Energy
Use of geothermal probes (100x100m) for the central heating and cooling supply

Ticketing Center
For customer service

12,000 Travellers
Use the new Station Green in Horrem on a daily basis

654m²
Surface area on ground floor

Rainwater retention
Surrounding the Station
90 t wood (primary construction)
...and mere 25 t steel!
use of renewable materials
and use of materials with good recycling qualities
162 PV-modules produce 40.5 kWp respectively 31000kWh/a
passengers find all relevant travel informations at the info cube
a well-balanced daylight concept and artificial light concept saves energy
10 geothermal tubes (each 100m)
29kW geothermal heating and
37kW geothermal cooling
Station Green Horrem

station as intermodal hub to bus, P&R, Taxi, bicycle parking – and barrier free!
Rainwater concept with green roof and cistern for public WC (PRM)
visual transparency in the waiting hall, large waiting area, underfloor heating
high spatial quality,
chargers for mobil phone at the seat,
Wifi Hotspot
prototype of the „Digital Reception“ (kind of skype for travel information)
customer satisfaction has increased – vandalism has decreased.
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The construction made of optimised concrete: reduced CO2 footprint
Station Green Lutherstadt Wittenberg

Brick facade - typical of the region and very durable
No overhead glazing, but still plenty of light through the transparent facades
Award for the best station (2017)
I.SBO Objektentwicklung und Planung

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THANK YOU
GRACIAS