



Fostering citizen-focused urban mobility
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Modernizing public transport

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**Interreg
Europe**



European Union | European Regional Development Fund

Background



Improving urban mobility and reaching the goal of **sustainability** is a key priority for the European Union.

To this end, substantial efforts have been undertaken in several regions within the European context regarding the investigation and successful implementation of innovative and green urban mobility solutions.

Background



70 % of the EU population ist living in European Cities

80 billion € per year are wasted only by traffic congestions

23% of all CO₂ emissions in urban areas are attributed to the transport sector



Challenges



- **Climate Change** - requires massive CO₂ reduction, thus reduction of fossil traffic
- **Environmental Goals** - require massive NO_x, particulate matter and noise reduction, thus reduction of fossil traffic
- **Spatial targets** - require massive reduction auf space dedicated to transport
- **Energy saving targets** - require massive reduction of use of fossil energy
- **Efficiency targets** - require a massive reduction of traffic congestions by reducing the MIT

Interim conclusion



Turnaround in transport policy is mandatory and requires a strong, **attractive** public transport system which is **demand oriented** uses **latest technologies** is **integrated** in a sustainable transport chain and **easy to use**.

Solutions (brief overview)



Mode of Transport

Transport Infrastructure

Digitization

City planning

Solutions (Mode of Transport)



Bus Rapid Transit System



- Reduction of travel time
- Commuters
- direct connections of important locations of city

Trolley Bus System



- Reduction of CO₂/NO_x emissions
- Energy efficiency
- Air quality

Metro Systems



- Reduction of CO₂/NO_x emissions
- Energy efficiency
- Air quality
- Transport efficiency

- Alternative fuelled public transport vehicles (LNG, Hydrogen)
- Electric and hybrid public transport vehicles

Solutions (Infrastructure)



Dedicated Bus lanes
Infrastructure for bikes
and pedestrians



Intermodal interchange
hubs



Car and Bike sharing



Solutions (Digitization)



Integrated transport services
for PT (real time information)



Integrated fare systems
(Ticketing)



Traffic management
systems with PT priority



Autonomous vehicles



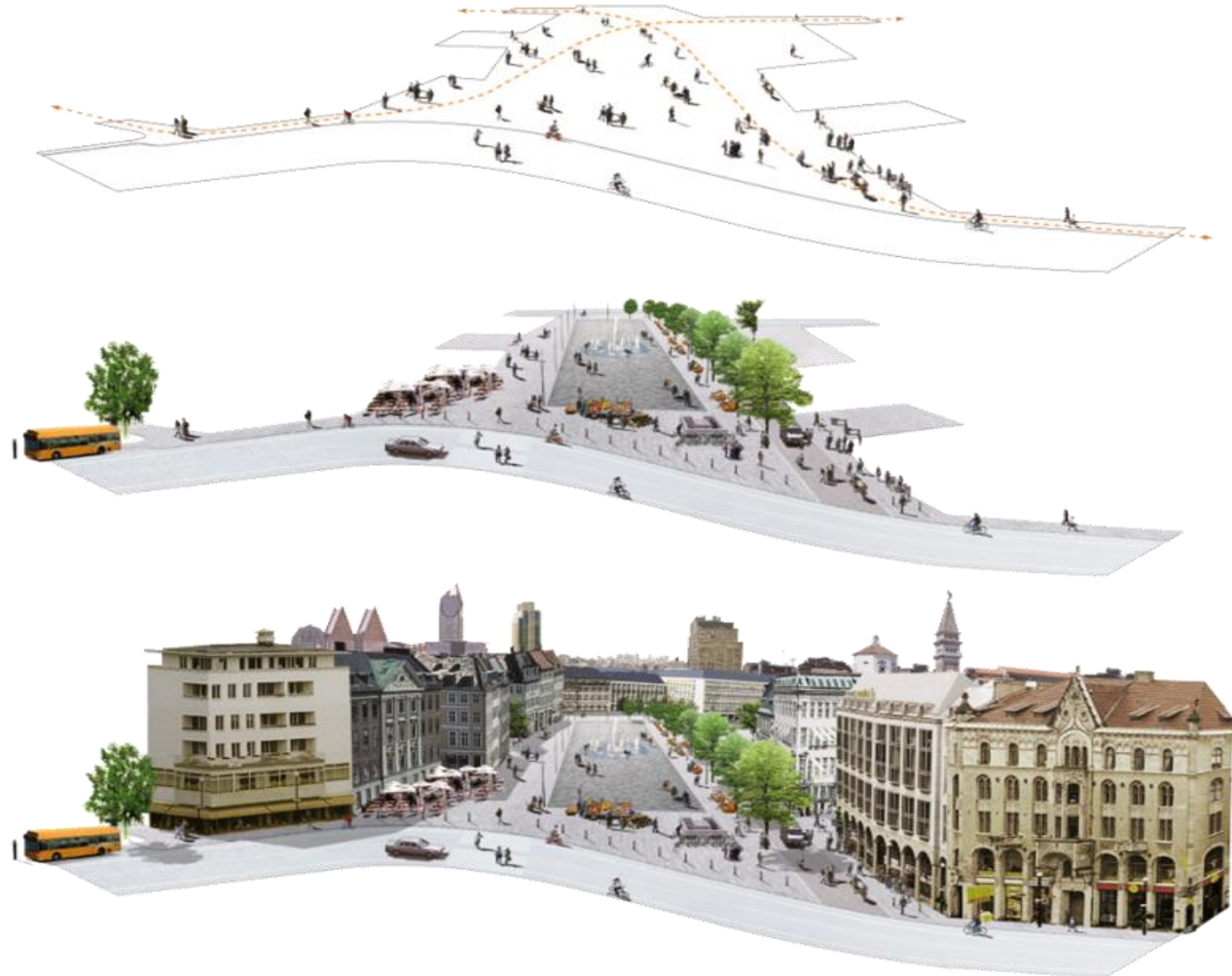
Solutions (Planning)



New planning philosophy
(Life/Space/Buildings)

Parking management

PT network planning





foot



cycle



car / motorbike



bus / tram

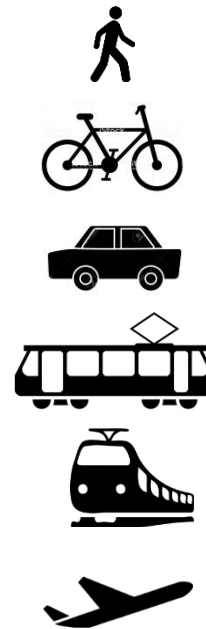


Monomodality

Multi- Intermodality



Park + Ride
Bike + ride
Bike shelters
Bike sharing
Car sharing



Park + Ride
Bike + ride
Bike shelters
Bike sharing
Car sharing



OptiTrans Examples



Granada Metro: Integration of transport modes.



OptiTrans Examples



THE PROBLEM

The city of Granada exerts a powerful attraction on its metropolitan area being the center of the economic and social activity of the whole area

The volume of travel from the metropolitan area to the city of Granada, coupled with its internal displacements, creates a problem of private traffic jams in most of the accesses to the city, as well as in many of the metropolitan area municipalities

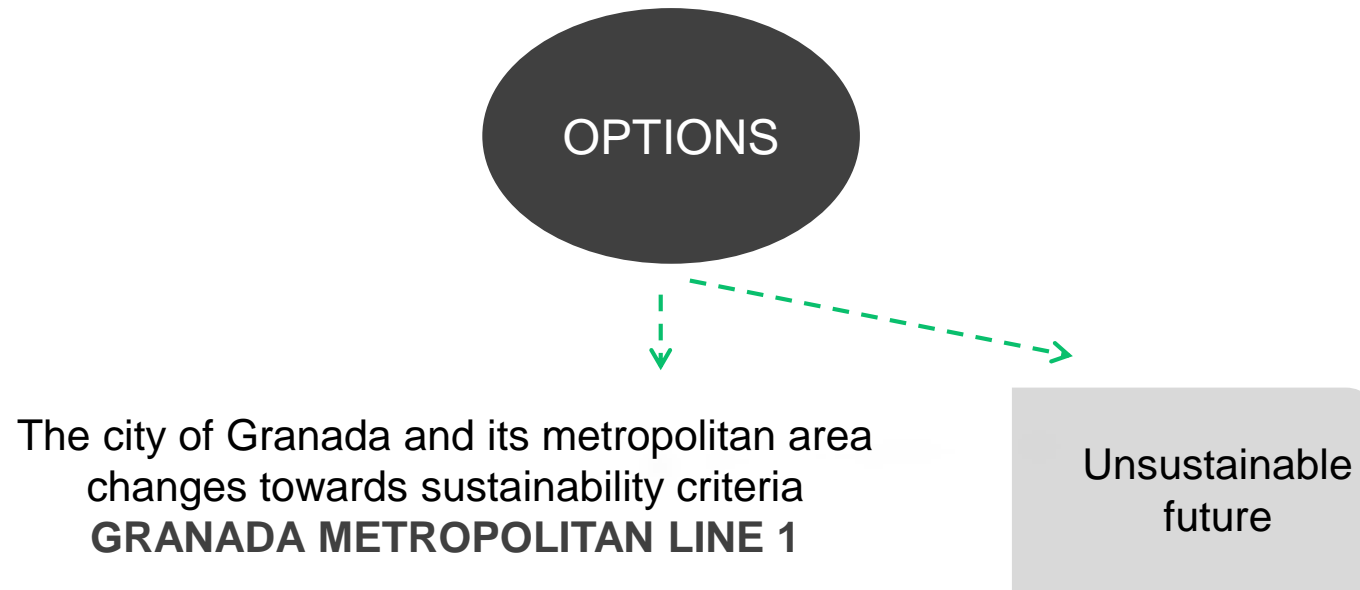




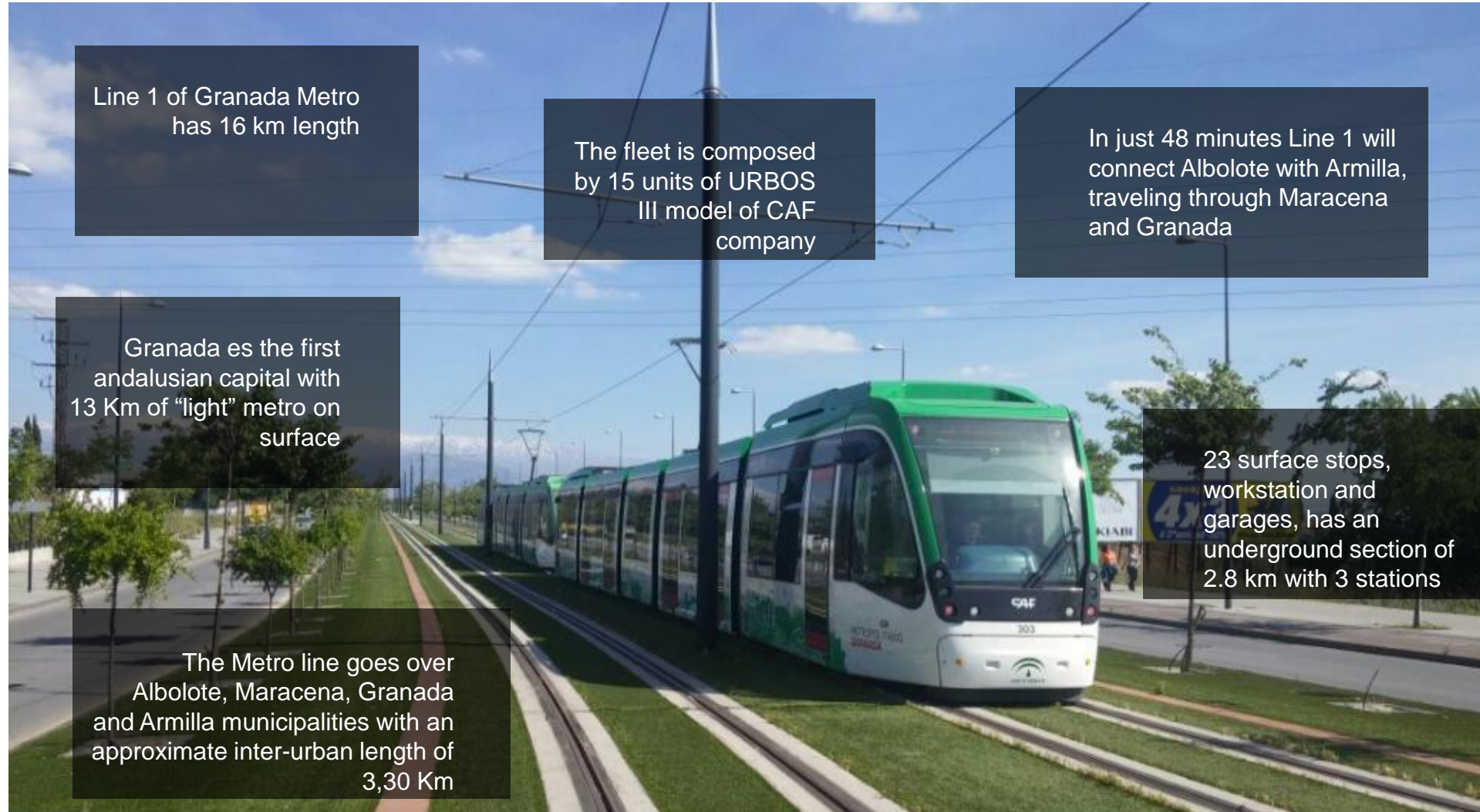
THE PROBLEM



INABILITY TO ABSORB THE MOBILITY INCREMENT



OptiTrans Examples



Line 1 of Granada Metro has 16 km length

The fleet is composed by 15 units of URBOS III model of CAF company

In just 48 minutes Line 1 will connect Albolote with Armilla, traveling through Maracena and Granada

Granada es the first andalusian capital with 13 Km of "light" metro on surface

23 surface stops, workstation and garages, has an underground section of 2.8 km with 3 stations

The Metro line goes over Albolote, Maracena, Granada and Armilla municipalities with an approximate inter-urban length of 3,30 Km

OptiTrans Examples



METRO CONECTS THE CITY





MOBILITY of the Future contains attractive, resource and climate saving transport means and thus contributes to **LIVEABLE** cities and well connected suburbs and rural regions.





Thank you!

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Digitization Strategy of Erfurt Transport Company

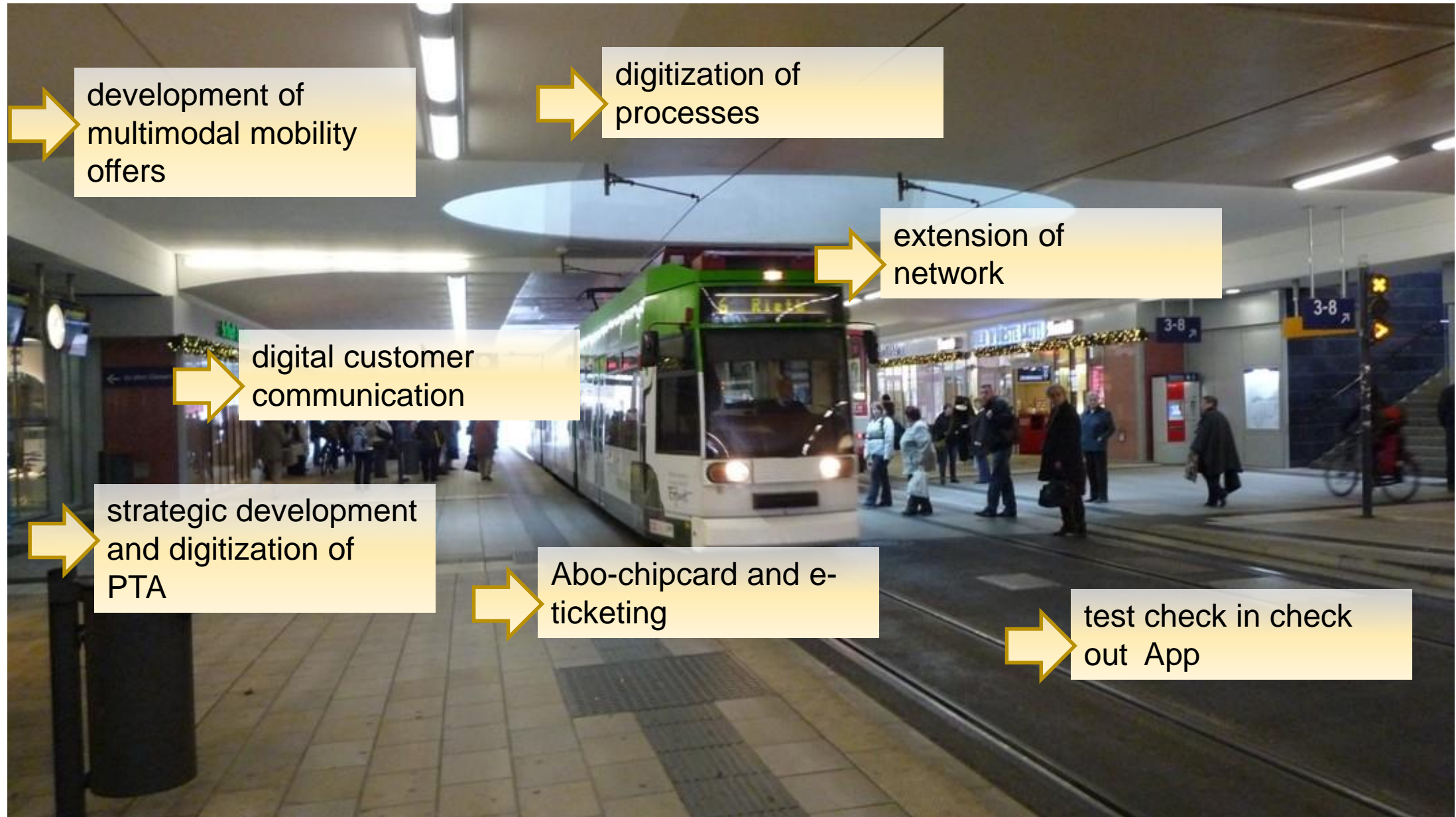
In the digital transformation phase, we are the contact point and service provider for customer-oriented mobility

for this we need the skills of our employees, new technologies and impulses

We inspire our passengers with easily accessible, flexible and understandable offers



OptiTrans Examples



OptiTrans Examples



SWE EVAG

Public transport is experiencing a renaissance and we are part of it

