Data Driven Cities

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Atos at a glance

We are the global leader in secure and decarbonized digital.

Supported by the talent and diversity of 107,000 employees in 71 countries, we generate an annual revenue of €11 billion.

We offer our clients a range of market-leading digital solutions and products alongside consultancy services, digital security and decarbonization offerings.

In a nutshell

107,000 business technologists in 71 countries worldwide

#2 in managed security services worldwide

€11 bn revenue and €1 bn operating margin

c.€235 m R&D per annum

Worldwide IT Partner of the Olympic and Paralympic Games

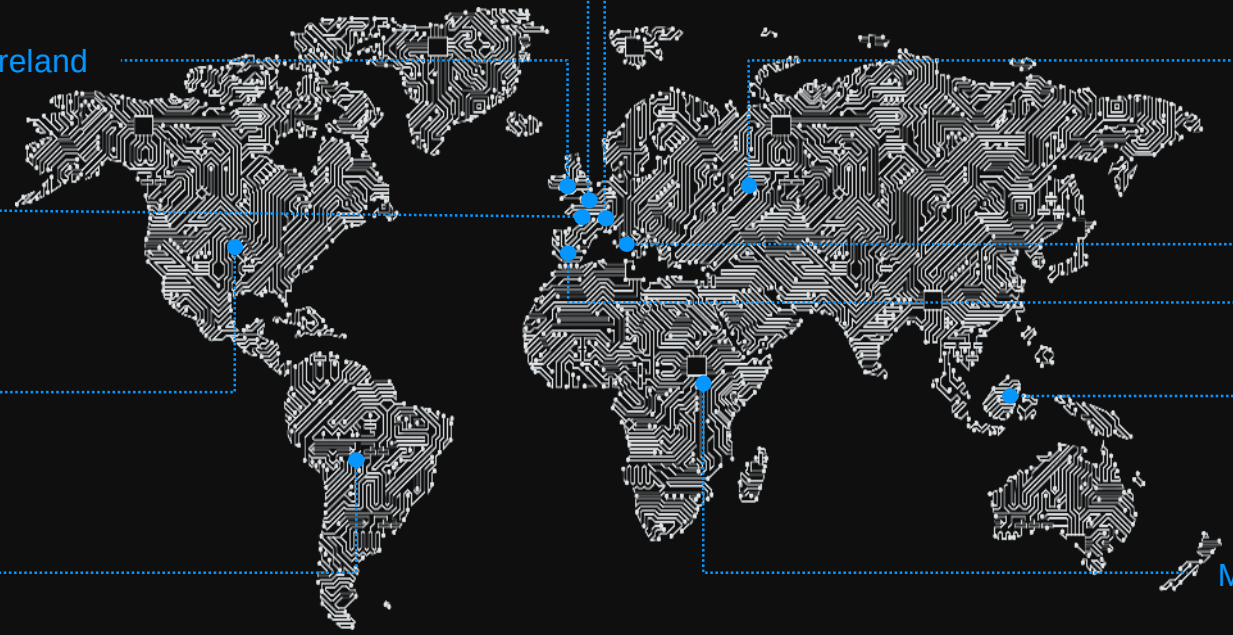
85,000 new digital certifications

Global leader in cloud and digital workplace

14.9 tCO2/m€ revenue industry best-in-class

Where you can find us

107,000 business technologists in 71 countries



Benelux & The Nordics
5,000 employees

United Kingdom & Ireland
9,000 employees

France
12,000 employees

North America
10,500 employees

South America
2,500 employees

Germany
9,000 employees

Central & Eastern Europe
13,000 employees

Italy
1,500 employees

Iberia
5,500 employees

Asia Pacific
35,500 employees

Middle East & Africa
3,500 employees

Cities

Physical city
- infrastructures

Dynamic city
- traffic

Social city
- place to work, live and entertain

Fysiological city
- air quality, sound level, heat waves

Characteristics of a Data Driven City

a definition

a Data Driven City is able to sense and respond to its challenges using natural and artificial intelligence embedded in the city's information systems.

Source: Liotine, Ramaprasad, Syn

a Data Driven City is able to share right time information with its citizens / visitors based on analysis of actual data to support daily decisions and enhance quality of life.

Source: Seubers, Albert

Citizen Centric

We are citizens
We are users
We make change possible

- Energy transition
- Transmodal shift

Together we keep the city..
- Healthy
- Economic viable
- Safe
- Liveable

Physical
Fysiological

New Initiative: Digital Twinning To Tackle Complex Urban Issues

Change is happening

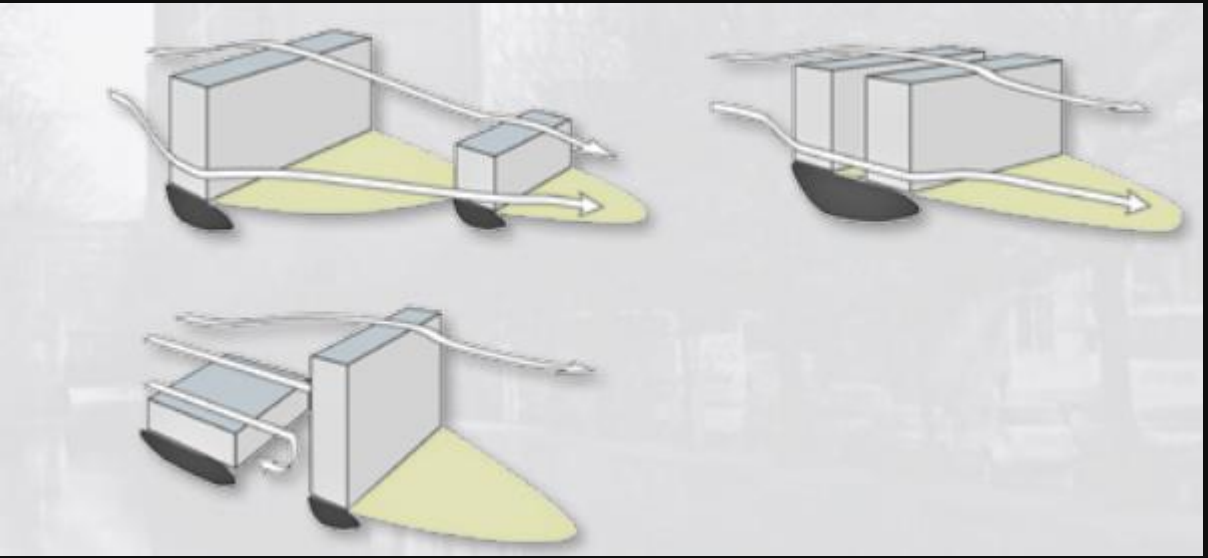
Building functions are changing
- 24 /7 economy
- joint use
- societal use

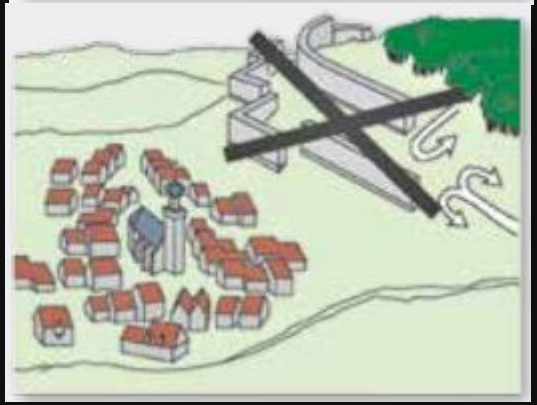
Importance of location is changing
- transport / logistics
- iconic recognition

Social aspects are changing
- Personal services

Physiological aspects are getting more important
- reflect / absorb sound
- influence air stream for cooling
- greening the city / water storage

Physological





City climate, use of natural air stream
Sandra Lenzholzer (WUR)

Digital Twin – Urban Development Initiative

- Visualisation – actual and new design
- Simulation – impact analysis
  - Dynamic city
  - physiological city
- Simulation – social and safe city
- Research – social and healthy city

Dynamic

Smart Mobility

Digital is revolutionizing mobility services

Anticipate passenger & freight expectations and provide contextual services

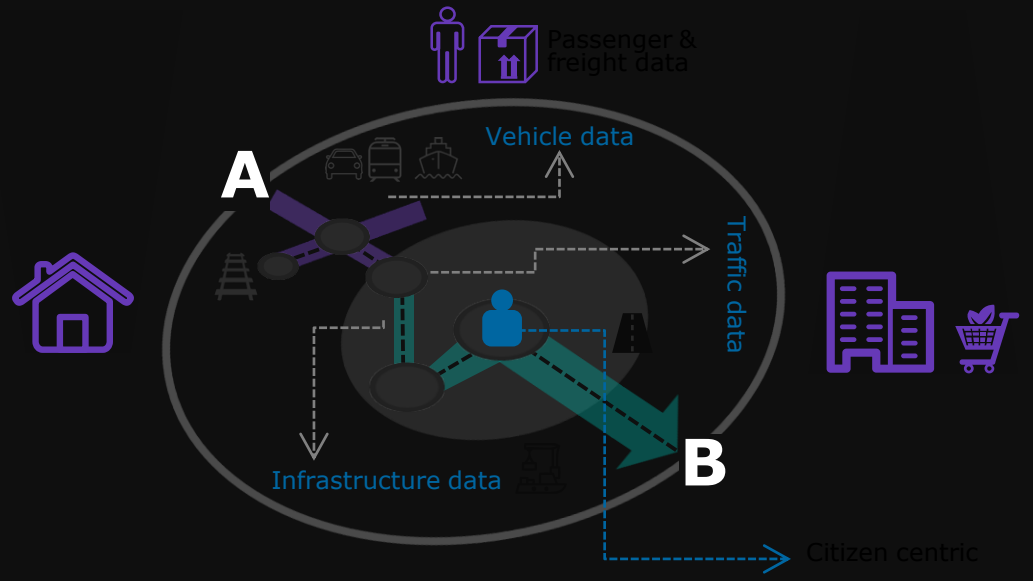
CONNECTED PASSENGER & FREIGHT

CONNECTED VEHICLES
Car, Train, Ship, Truck, Bicycle, Scooter

INFRASTRUCTURE
Road, Rail, Station, Canals, Bike-lanes

Driving real time efficiency across multi modal mobility

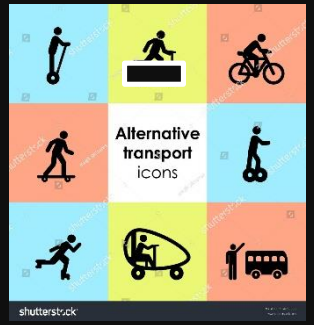
Before | During travel | After



Smart Mobility : Main Challenges

Traffic Jam monitoring

Decarbonization



Alternative Transportation

Smart Mobility
Key drivers

MULTIMODAL INFRASTRUCTURE

Share multimodal infrastructure of transportation

ACCESIBILITY Of SERVICES

Develop accessibility of services

DECARBONATION

Support decarbonation of the territory to make the territory attractive

TRAVEL SAFE

Ensure safe travel decreasing number of accidents

CITIZEN MINDSET

Change Citizen Mindset by incentivization to limit his CO2 consumption

Smart Mobility in the Urban Data Platform
Key Features and assets

Reliable & trusted Operations 24/7

- Right time architecture
- Hybrid cloud containerization
- Hosting strategy and scalability (cloud computing)
- High Availability based on secured open standard
- Security by design

Designed for Territories & Cities

- Mobility planning
- Infrastructure management ensuring continuity of services between urban and rural areas
- Leverage collective intelligence (citizens, enterprises, authorities) through networking and connectivity.
- Traffic guidance based on right time data analytics

Designed for Mobility

- Traveler Information System
- Mobility as a Service
- Shared Mobility Access
- c-ITS
- Fleet Management

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Environment monitoring
Mobility services
Mobility infrastructure
care
economy
safety
citizen well being
education
emissions
DT powered AI
Urban Design Simulation
traffic models
c-ITS
FALCON
Urban Data Management
Urban Strategy
Security
Edge
Cloud

Social

- We are the Citizens..
- We need to change daily routines..

- We need information
  - When
  - Where
  - How

- Personalized but secure
  - Vulnerabilities
  - Alternatives

Standards

NEN – Smart City

OASC – MIM’s

Data models

FIWARE Foundation

Share stories

Interoperability

Thank you..