

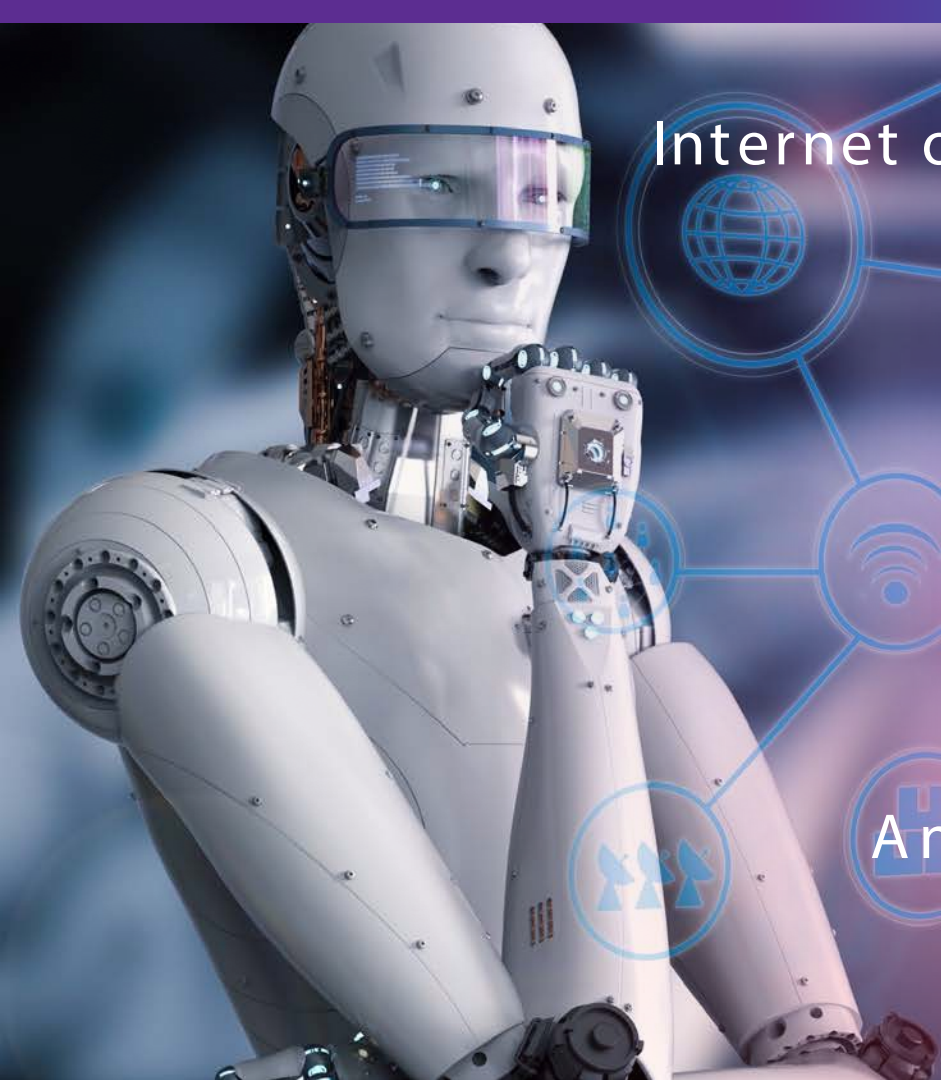
ReadyForTomorrow

Fostering companies towards
digital transformation

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Head of IoT and Analytics
February 2nd, 2018

proximus



Internet of Things

Virtual Reality

Artificial Intelligence

Machine Learning

Blockchain

Analytics

Augmented Reality

proximus

Common challenges across all sectors leading to digital transformation

Revenues and margins under pressure
Need to be more efficient

Stay good at what we do
while developing new business

High speed of competition, innovations
and change

Increasingly higher customer demands
and expectations



The diagram features a central blue area on the right containing the text 'DIGITAL TRANSFORMATION'. Four white lines with circular endpoints at their left ends point from this central area towards the four challenge text blocks on the left. The background of the slide is a blurred image of a server room with glowing blue and green lights.

**DIGITAL
TRANSFORMATION**

Opportunities to drastically reinvent yourself

What do you want to achieve?

Improved Customer Experience



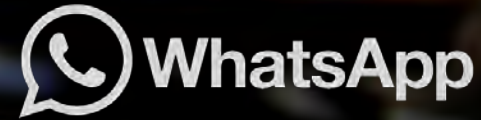
Optimize Business Process efficiency



Create new Business Model and Product Innovation



Comply with legislation



Fostering transformation in the six domains mostly impacted by digitalization.





Smart City

proximus

Smart City trends in Belgium

66%
of municipalities
feel concerned

Improve quality of
life
Low traffic cities

Top ranking:
1. Smart environment
2. Smart governance
3. Smart Living
4. Smart mobility

70 %
of population will live
in cities in 2050



Smart City challenges



Citizen involvement
get citizens more involved



Mobility,
an important topic in any city



Environment
80 % of CO₂ is coming from cities



Tourism,
both a challenge and opportunity



Local economy
Get people to local shops again

How can we build E2E solutions together?



Ready made solutions

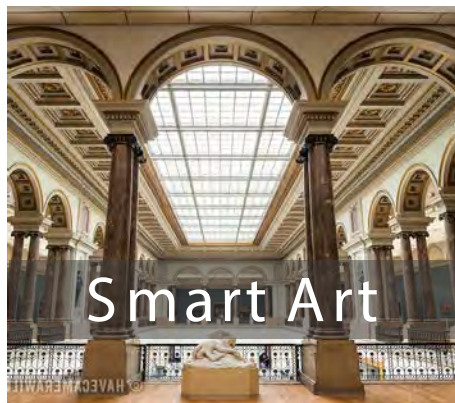


Co-creation



Exposing & connecting
assets
(Proximus EnCo)

Proximus IoT for the city: some concrete examples



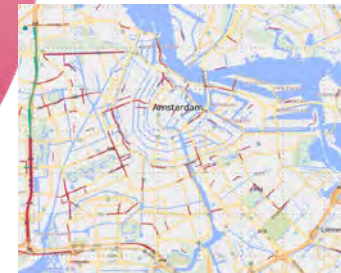
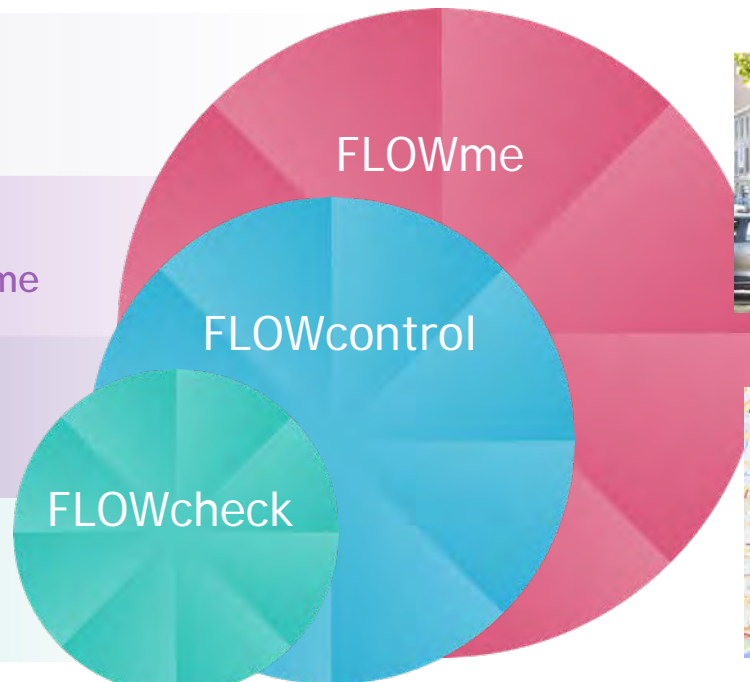


Personal advises

Monitor and display
mobility information real time

Analysis of
mobility flows

Collection of
mobility flows



Smart Mobility

Smart parking payment
methods

Smart traffic
management

Proximus Analytics for the city: some examples

Events / Tourism



Local economy and retailers

Mobility

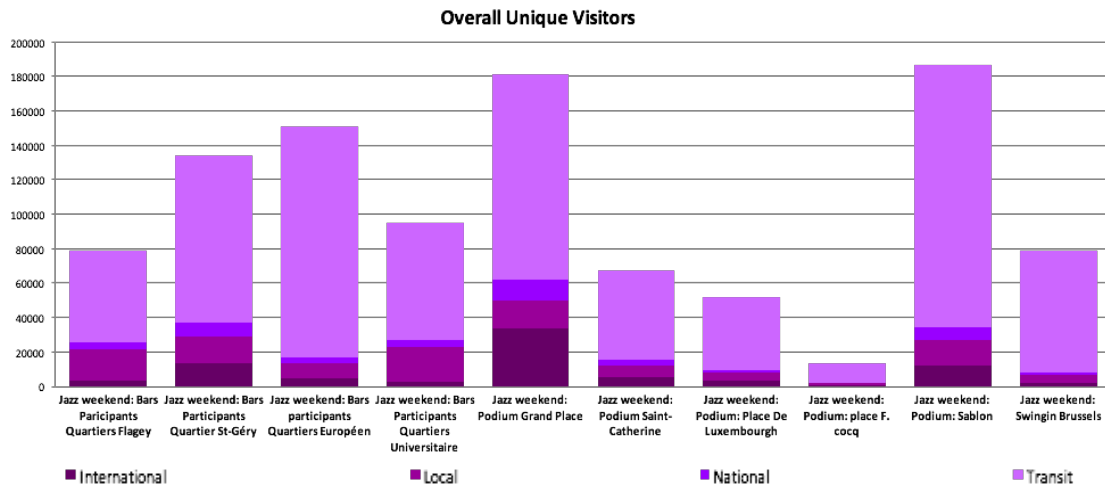


Security

Customer
story

Brussels Jazz Weekend

Data collection to monitor success of events



- How many visitors ?
- Origin?
- Local, (inter)national ?
- Overnights ?
- ROI culture ?

Customer
story

Visit.
Brussels

PLAISIRS
D'HIVER
WINTER
PRET
BRUXELLES • BRUSSEL

FR / NL / EN

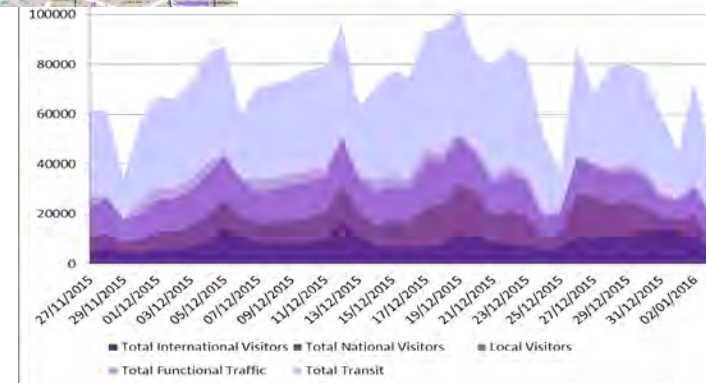


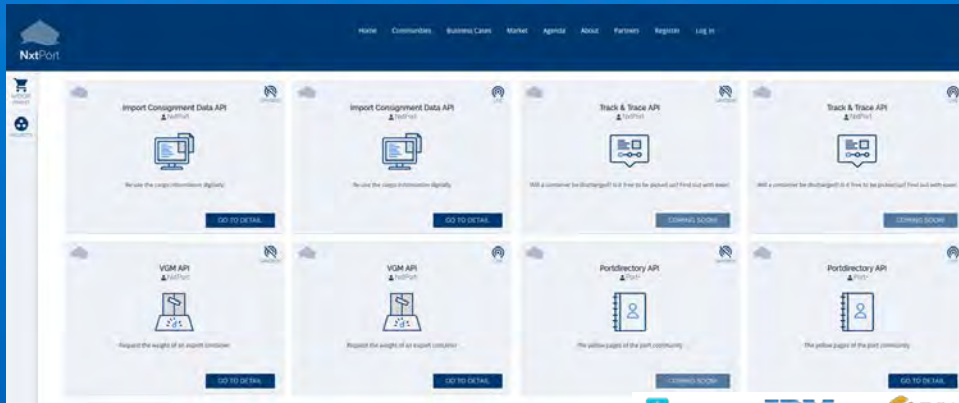
Data collection to promote tourism and local events in Brussels



Catherine - Place de la Monnaie

- How many visitors ?
- Origin?
- Local, (inter)national ?
- Overnights ?
- ROI culture ?

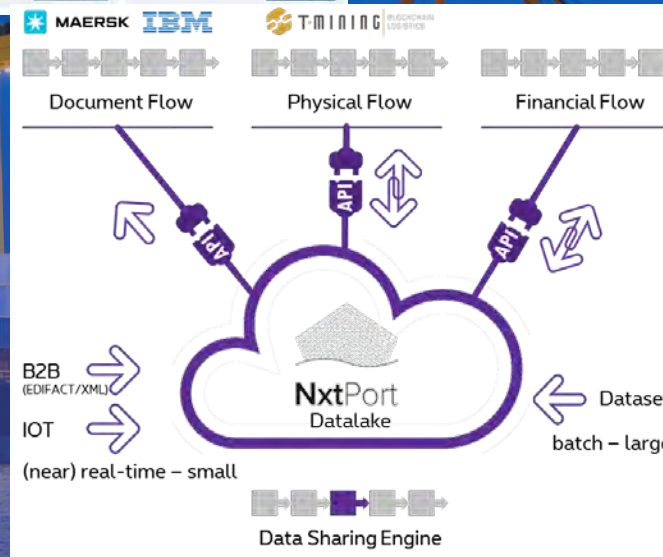




Challenges

- How can I enforce common business rules?
- How can I make the data of different vendors interoperable?
- How can I limit my development and maintenance costs?

Open Data Platform & Marketplace (NxtPort)



Results

- Common access point to all relevant data
- Enabler and support for new value-added applications (e.g. blockchain, VR,..)

BB *Your partner for
digital solutions* BB



Your partner for digital solutions



1. Things

- M2M
- LoRa



2. Connectivity

- 2G 4G
- LoRa, NB-IoT
- WiFi, etc.



3. Platform & integration

- IoT platforms & partners
- Integration in Back-End
- Cloud & Security



4. Exposing assets

- Data analytics
- Data protection



5. Expert advise

- Design thinking



FUTURE AHEAD

Thank you

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#ReadyForTomorrow

@EviHeeman



Location Insights Reports

- Visitor Analytics
- Event Analytics
- Journey Analytics
- Mobility Analytics

Presence Cells First tests successful

- Micro-location data
- Increased precision of reports

Coming soon Development ongoing

- Real Time Crowd Management
- Location Based Lifestyle Profiling

Fostering transformation in the six domains mostly impacted by digitalization

- ✓ Machine remote monitoring.
- ✓ Remote Monitoring
- ✓ Asset Tracking
- ✓ Etc.



- ✓ Vending Machines
- ✓ Payment Terminal
- ✓ Cold Chain Monitoring
- ✓ Customer data analytics
- ✓ Etc.



- ✓ Usage Monitoring: Gas, Water & Electricity
- ✓ Leakage detection
- ✓ Renewable energy: solar panels, boiler, etc.
- ✓ Etc.



- ✓ Track & Trace
- ✓ Fleet Management
- ✓ Eco-Driving
- ✓ Container fulfilment
- ✓ Fuel Management
- ✓ Predictive maintenance
- ✓ Etc.



- ✓ HVAC Systems
- ✓ Light Management
- ✓ Room Occupancy
- ✓ Print Management
- ✓ Elevator Management
- ✓ Etc.



- ✓ Air Quality Metering
- ✓ Waste Management
- ✓ Street Lighting and signage
- ✓ Smart parking and ANPR
- ✓ Security camera and analytics
- ✓ Mobility management and analytics
- ✓ Etc.

Fostering transformation in the six domains mostly impacted by digitalization

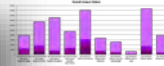
Offering E2E solutions beyond connectivity



Track&Trace + live stock mgt for Proximus Reels



Industry



Brussels Jazz festival: number of visitors?, origin?, did they stay? Etc.



Retail & Events



Energy



Antargz remote monitoring of gas tank and new business model invoicing consumption based



Logistics & transport



NxTPort – platform exposing assets to developers in the Port of Antwerp



Smart Building



Floor occupancy at AXA building 2000 places monitored (6 desks for 10 employees)



Smart City



Mobit: bike renting without station. Gelocalisation through an App

Supporting a vibrant eco-system



An example of outside-in approach (co-creation)

Smart art for preserving artworks

