

CITY OF THINGS

Davor Meersman
iMinds



15 min
BEFORE RAIN
APPROACHES YOU

✈️ 05 min 37 sec
BEFORE ARRIVAL

✈️ 08 min 07 sec
SINCE DEPARTURE

iMinds

City of Antwerp

VikingCo

1,358 KWH
GAINED

1,214 KWH
GAINED

04 TABLES LEFT

FULLY BOOKED

23 WATT
USED

ENERGY SAVING
MEDAL UNLOCKED

432 METER TO THE
CHEAPEST DIESEL

04 RED LIGHTS
ON YOUR WAY

YOU WALKED 1894 METER
SO FAR

17 HOURS
PARKING LEFT

YOUR PACKAGE
WILL ARRIVE IN 15 MIN

235 METER UNTIL
BIKE PARKING

124 PEOPLE
FAVORISED





INTERNET OF DATA

BROWSING
ANTWERPEN.BE

INTERNET OF THINGS

SMARTPHONE
CALLING
Zmin 03sec

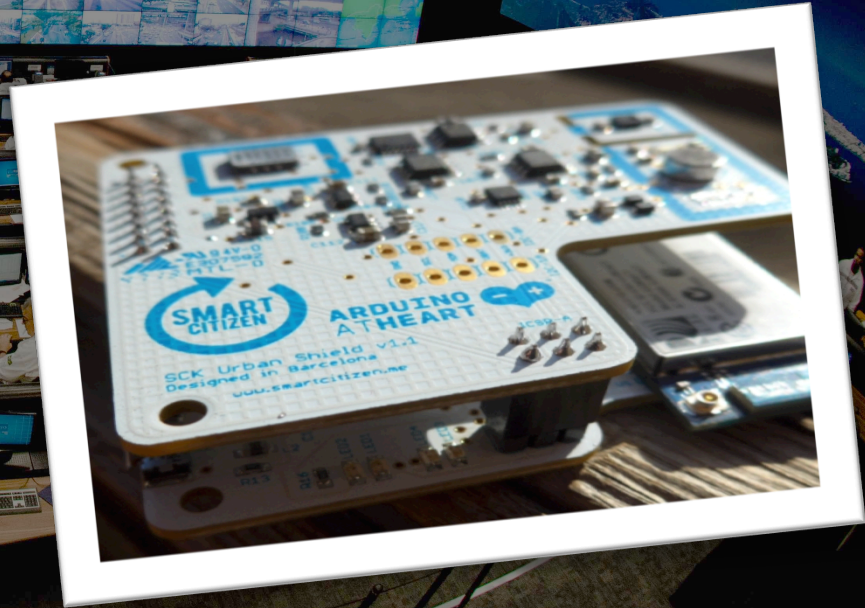
SMARTWATCH

INTERNET OF HUMANS

Top-Down vs Bottom-up



CENTRO DE OPERAÇÕES
PREFEITURA DO RIO



Local Innovation Platform

- Cities are a shared resource and responsibility
- An enabling environment for all involved stakeholders
- With technology as an enabler
- Open data, open innovation, co-creation, living labs
- Quadruple helix put to practice



Quadruple helix in practice: City of Things



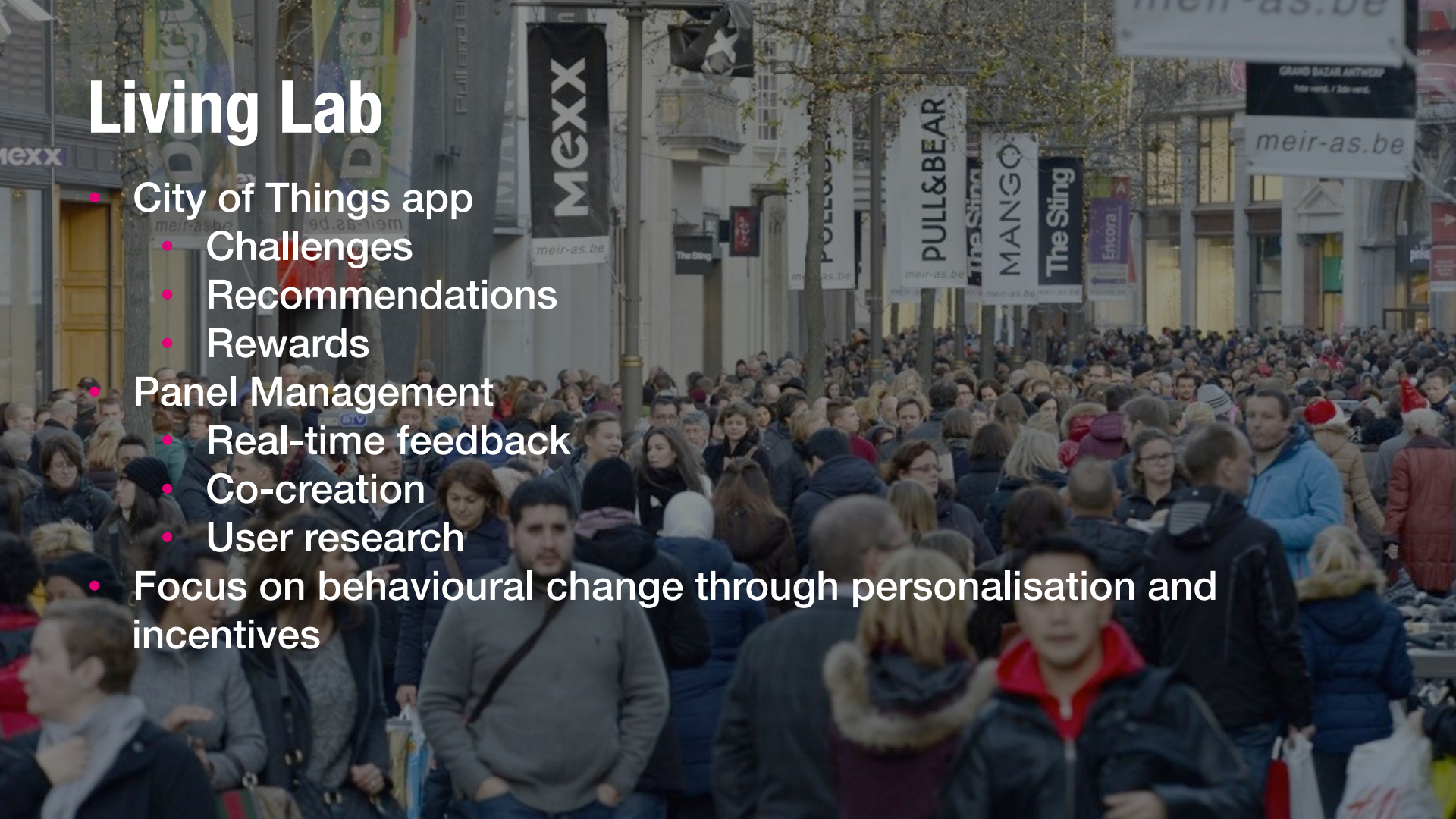
- City of Antwerp
- Mobile Vikings
- iMinds
- Citizens



- In a **real-life** test environment, where users and producers **co-create** innovations in a trusted, open ecosystem that enables **business innovation**

Living Lab

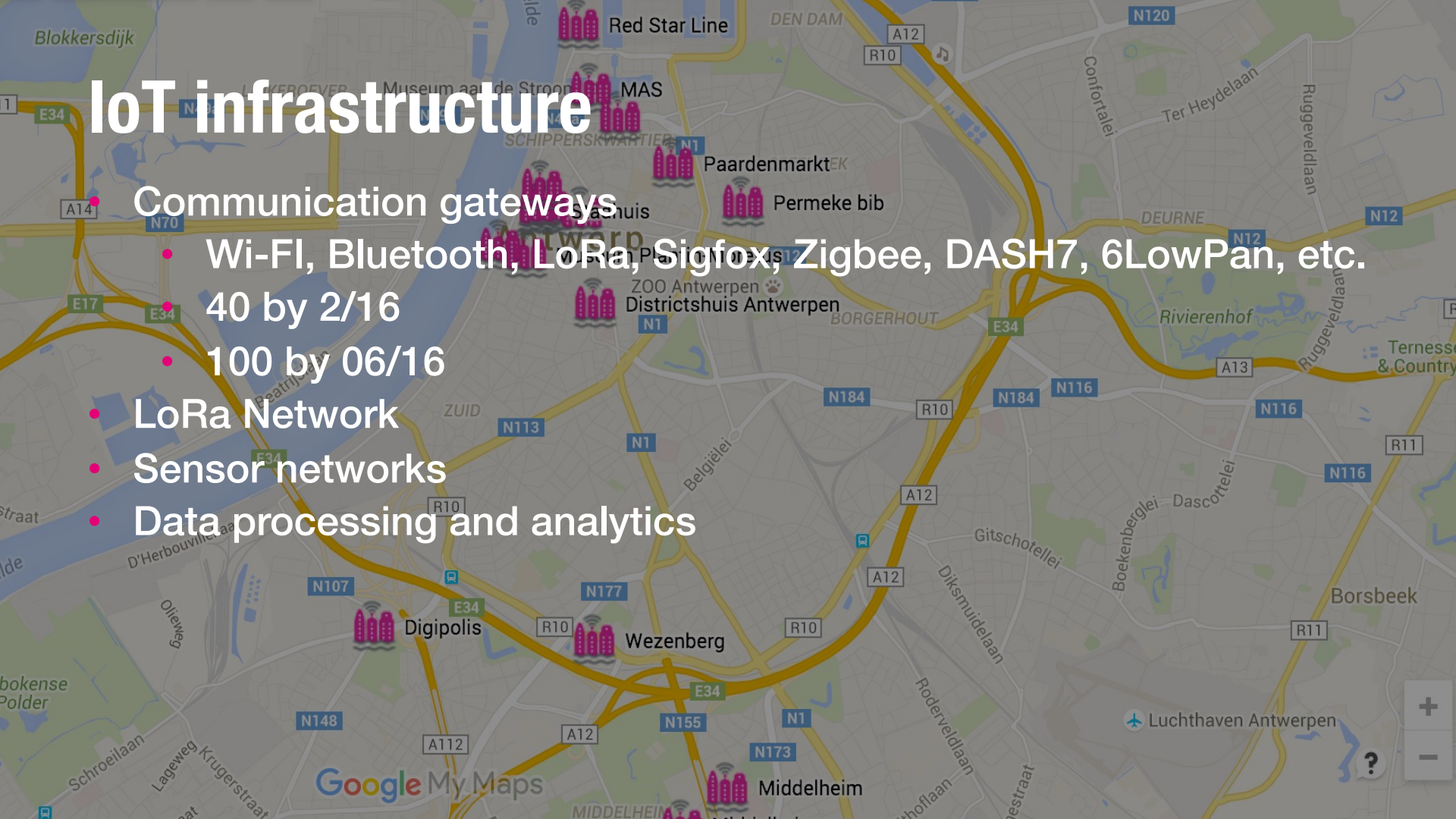
- City of Things app
 - Challenges
 - Recommendations
 - Rewards
- Panel Management
 - Real-time feedback
 - Co-creation
 - User research
- Focus on behavioural change through personalisation and incentives



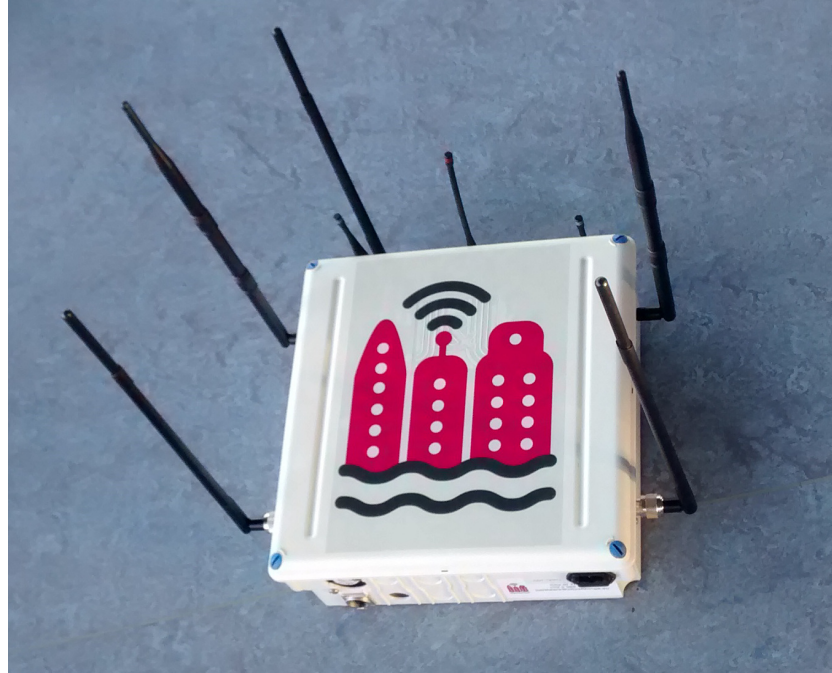
IoT infrastructure

Communication gateways

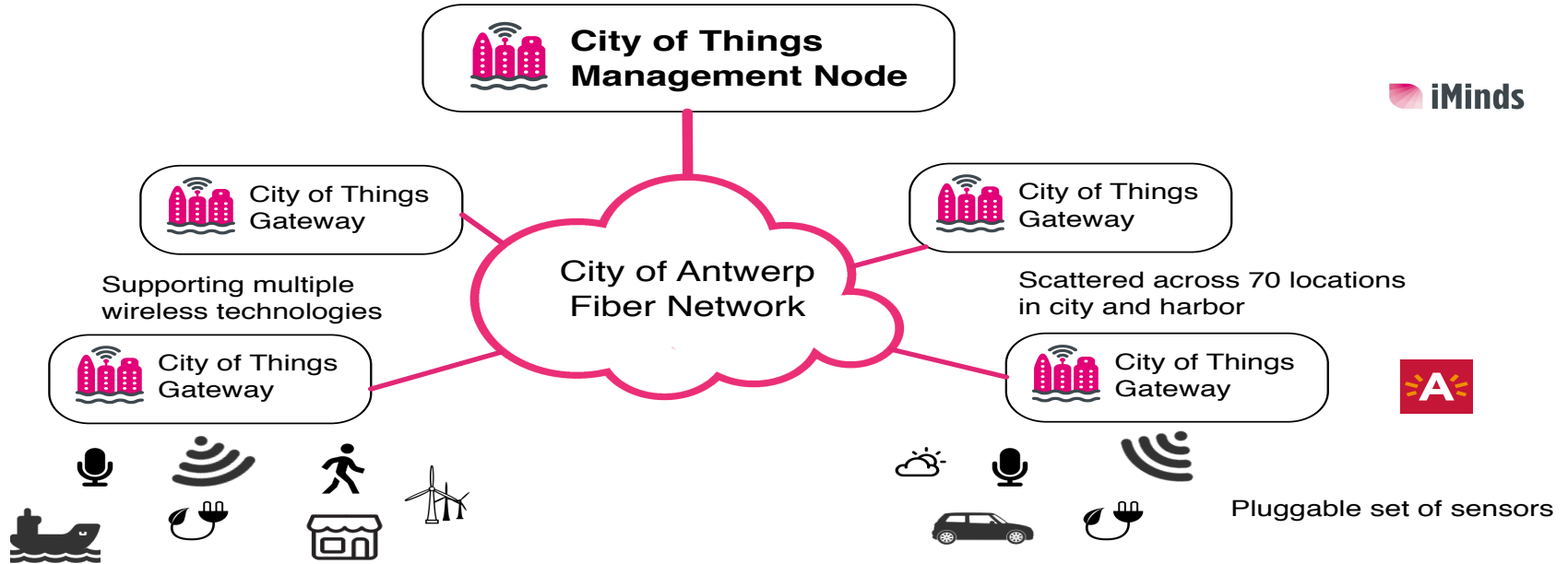
- Wi-Fi, Bluetooth, LoRa, Sigfox, Zigbee, DASH7, 6LowPan, etc.
- 40 by 2/16
- 100 by 06/16
- LoRa Network
- Sensor networks
- Data processing and analytics



Gateways



General architecture



Three layers



Business layer

Living lab and analytics infrastructure
for evidence-based innovation



Data layer

Providing an open data platform with a
real-time view on the city



Network-layer

Deploying a city-wide network
connecting multiple wireless technologies

City of Things



- Technological capacity to gather and analyse user and sensor data
- Infrastructure to involve, track, and interact with users at a very large scale
- Platform for evidence-based innovation
- Equipping the city with new tech
- Public-Private collaboration models

Air Quality Monitoring

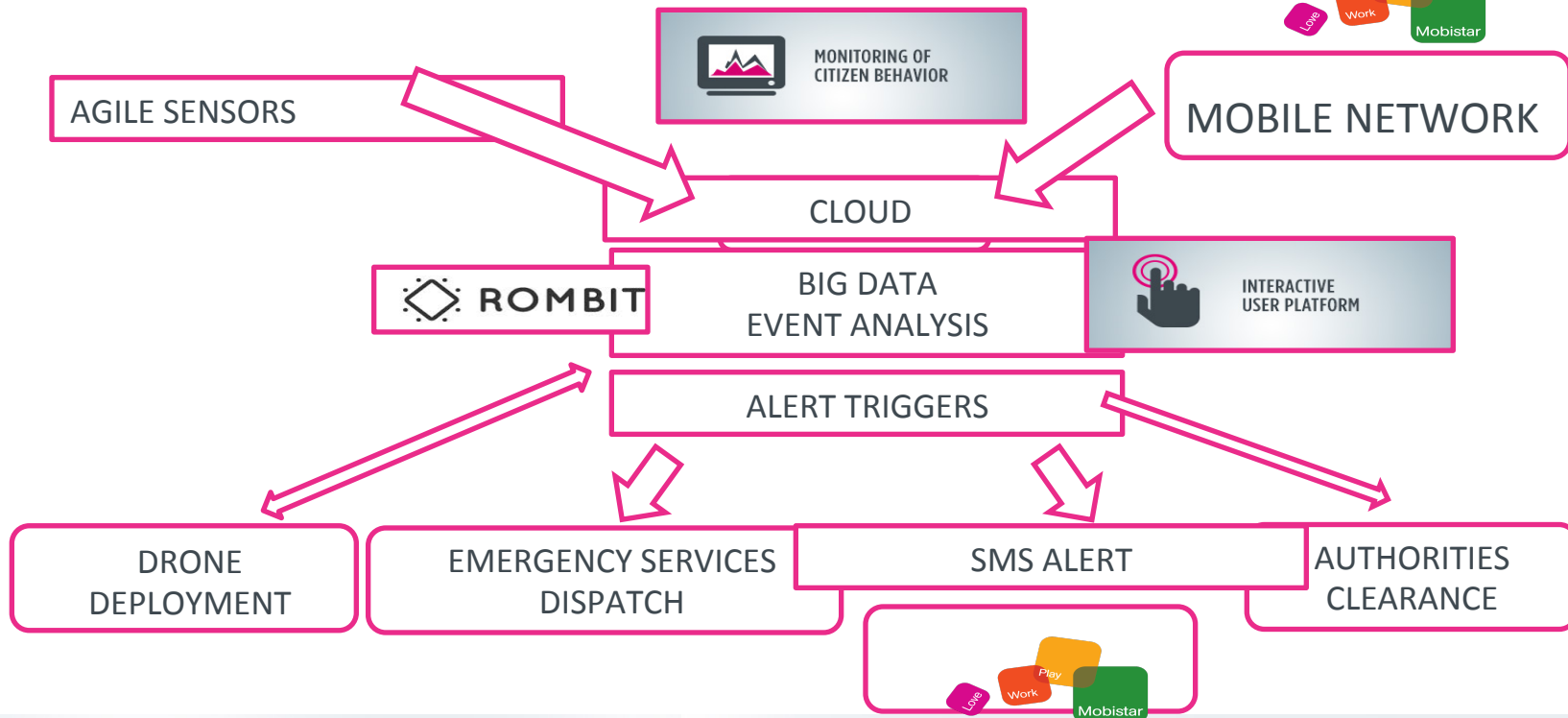






AGILE: Drones in Port of Antwerp





A*SIGN

