

#### **IOT SMART CITY ACTIVITIES IN FLANDERS**

TANGUY COENEN (IMEC) AND LIEVEN RAES (AIV)

### KEY FLEMISH SMART CITY CHALLENGES



- Water
- Air Quality
- Sound
- Mobility
- Logistics
- Pandemics



#### **IOT INITIATIVES IN FLANDERS**

#### City of Things

- Running since 2016
- Focusing on IoT deployments in cities
- Output is a vendor-agnostic Smart city data platform infrastructure
- https://www.imeccityofthings.be/en/projects

#### VLOCA

- Flemish open smart city architecture
- VLOCA Knowledge Hub
- http://vloca-kennishub.vlaanderen.be/vloca-kennishub

#### Datanutsbedrijf

- Innovation through data sharing
- Data marketplace





#### **IOT INITIATIVES IN FLANDERS**

- Local Digital Twins
  - H2020 Duet
  - H2020 Urbanage
  - H2020 Precinct
  - Bruges LDT
  - White paper: <a href="https://vloca-kennishub.vlaanderen.be/vloca-kennishub/Open\_urban\_digital\_twins">https://vloca-kennishub.vlaanderen.be/vloca-kennishub/Open\_urban\_digital\_twins</a>
- Gaia-X
- Imec research focus on Edge Al



#### Broker data catalog http model management P catalog mgtt broker component catalog ngsi-\* broker 🕥 GIS services unstructured data processing $\rightarrow$ low latency Immutable transform Œ. Storage object Transform Live / context 000 event storage processing scalable structured streaming 101011101 & search streaming analytics **4)** 🔼 💿 unstructured Storage to Scale العالم 2 Personal data vault 8 machine models learning IAM umec

## SMART DATA MANAGEMENT

Smart data is seen as the sum of:

- ▶ (Big) Data [the data itself]
- ► **Utility** [the potential utility derived from the data]
- Semantics [the semantic understanding of the data]
- ▶ **Data Quality** [the quality of the data collected]
- ▶ **Security** [the ways data are managed securely]
- ▶ **Data Protection** [how privacy and confidentiality are quarded]

https://ec.europa.eu/social/BlobServlet?docId=17367&langId=en

# mec

embracing a better life

