imec is the world-leading R&D and innovation hub in nanoelectronics and digital technology.

Centralized team in Leuven (BE) & Eindhoven (NL)

SEMICONDUCTOR & SYSTEM TECHNOLOGIES
- CORE
  - CMOS
- SENSOR TECHNOLOGY
- FLEXIBLE TECHNOLOGY
- PATTERNING TECHNOLOGY
- LOGIC TECHNOLOGY
- MEMORY TECHNOLOGY
- INTERCONNECT TECHNOLOGY
- 3D INTEGRATION
- OPTICAL I/O

DIGITAL TECHNOLOGY PLATFORMS
- NETWORKING
- DIGITAL PRIVACY & SECURITY
- SOFTWARE & DATA MANAGEMENT SKILLS

SMART HEALTH
- SMART MOBILITY
- SMART CITIES
- SMART INDUSTRIES
- SMART ENERGY
UNIQUE TEST INFRASTRUCTURE
FROM LAB TO VARIOUS REAL-LIFE ENVIRONMENTS

**Wireless Lab**
66x20 m²: 120 wireless, 20 mobile nodes + SDR, sensors, LTE + 44 nodes in datacenter.

**Office Lab**
120 nodes
3 floors of office building

**Industrial IoT**
Flexible factory Environment
UWB localization
Drones/AGVs
Conveyor belts

**Smart Highway**
30 km rollout of LTE-V and IEEE 802.11p
SDR-based CloudRAN

**GPU Lab**
AI/ML experiments
140 GPU’s
570,000 cuda cores
1.8TB GPU RAM
100GB/S infiniband

**City Lab**
Wireless testbed
City of Antwerp

**10 Gbps Fiber interconnects**

**5G**
USRP x310
Benetel Radio Unit
4G modem
Power unit
Processing unit

**Flexible factory**
Environment
UWB localization
Drones/AGVs
Conveyor belts

**Portable 5G testbed**
USRP x310
Benetel Radio Unit
4G modem
Power unit
Processing unit

https://doc.ilabt.imec.be
IoT Sensor data

Edge processing/filtering

Cloud infrastructure

ML Algorithm @ GPULab

WiFi Mobility

Anomaly detection on sensor data

Video processing on mobile camera feed
IMEC CAN HELP YOU

From the very beginning...

Feasibility study

Rapid prototyping

Product design

Product customization

Testing & benchmarking

...All the way to the end

Troubleshooting

UNIQUE OFFERING:
EXPERT KNOWLEDGE + LARGE-SCALE TEST FACILITIES
Industrie 4.0-proeftuin

Smart Connectivity