

IOT

WHAT IS IT?



- Internet of Things
- Simple explanation: “The Internet of Things means **taking all the things in the world and connecting them to the internet.**”

IOT

1. Sensors that collect information and then send it.
2. Computers that receive information and then act on it.
3. Things that do both.



IOT EXAMPLES

5G CONNECTING THE COMMUNITY



Sensors placed in:

- Autonomous and Connected Vehicles.
- AR/VR
- Smart Watches, Fitness Trackers, Wearables and “Hearables”.
- Machine-to-Machine (M2M) Connected Devices.
- Drones.
- Smart Campus: Energy, Transportation, Parking, Environment.
- Healthcare: patient monitoring.
- Smart buoys (Coast, backwater).

IOT

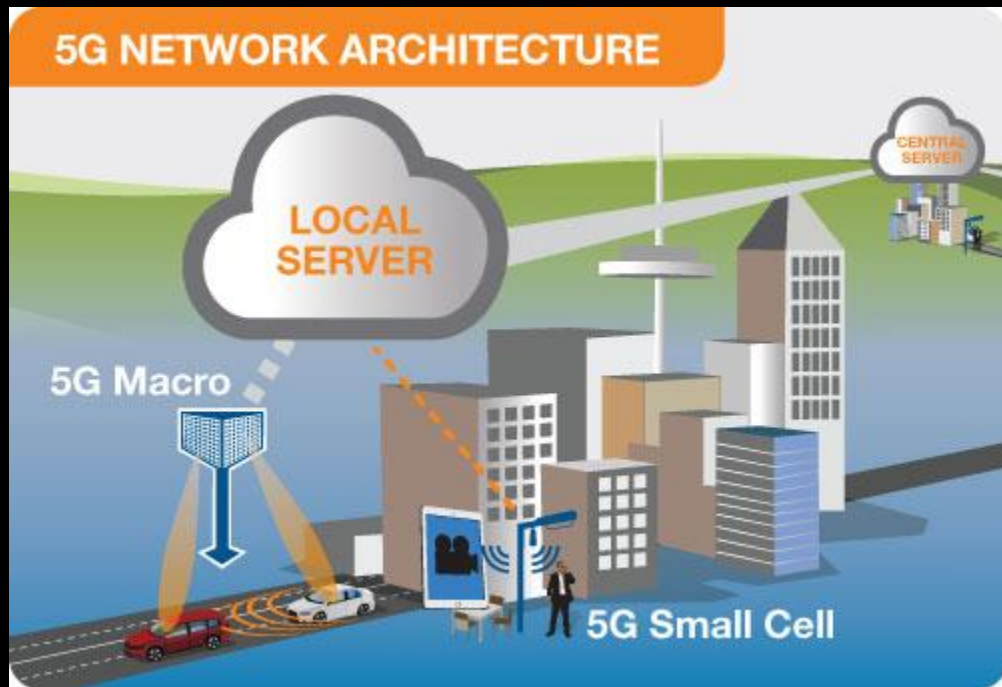
RESEARCH

IoT possibilities

- If your research uses sensors, consider using an IoT-enabled sensor
- Collaboration with T-mobile
- Research driven
- Excellent coverage on the campus and in NL
- T-mobile has contract with multiple providers within the EU

5G MOBILE

INDOOR CONNECTIVITY UNIVERSITY OF TWENTE MEANDER (I.C.U.M)



Surf contest won by the UT.

Goal

- The goal of the contest was to test indoor GSM coverage with an Distributed Antenna System (DAS)
- A multiple provider DAS has been installed in Meander, only T-mobile connected so far.
- A private 3,Ghz LTE small cell network has also been installed in Meander.

5G MOBILE

PRIVATE LTE

5G TECHNOLOGY OVERVIEW

10x-100x
Connect
ed
Devices

•Expecte
d speed
up to 1
Gbps

Lower cost
than
previous
generation
s

X10 faster
than 4G

10x Battery
Life for Low
Power



- Private = Our own sim-cards
- 3,5Ghz network not commercially available yet in the Netherlands!
- Research the future.

A decorative graphic consisting of numerous thin, white, wavy lines that flow across the page from left to right, creating a sense of movement and depth. The lines are closely spaced and vary in amplitude, creating a wave-like pattern.

THANK YOU!



**UNIVERSITY
OF TWENTE.**