



# NB IOT

## Use cases, Technology maturity and Partner networks

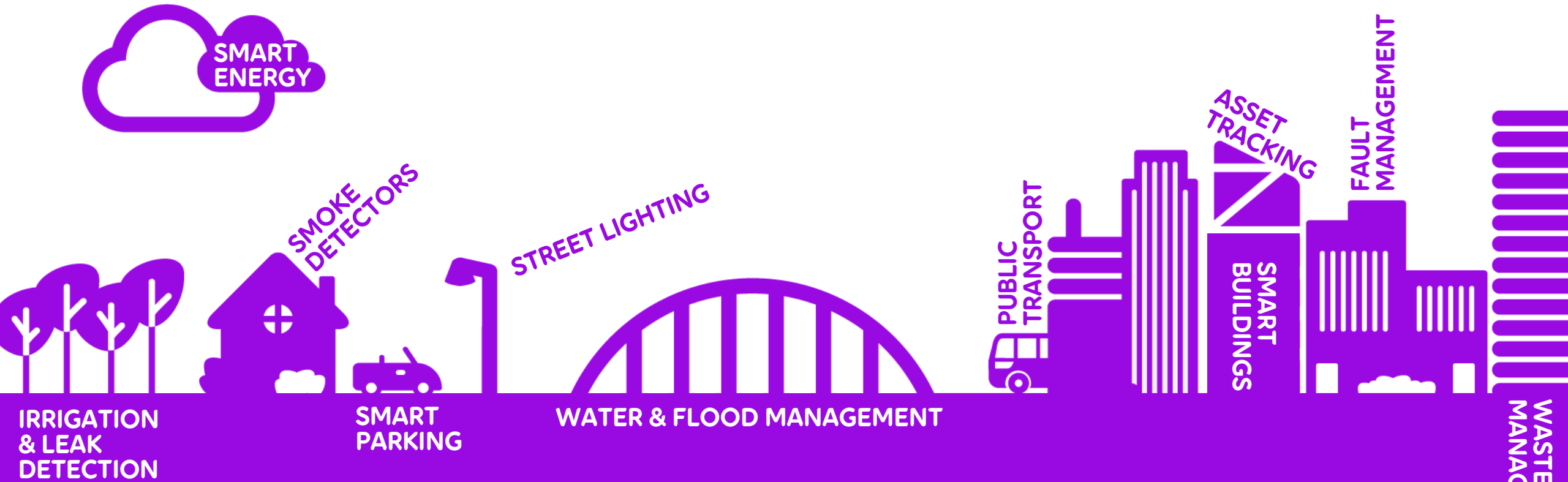
Marko Lepola  
Head of Commercial Product Management  
Enterprise and Public IOT  
Telia Division X



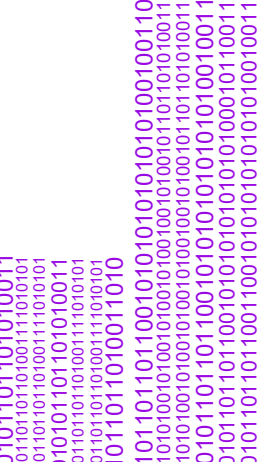
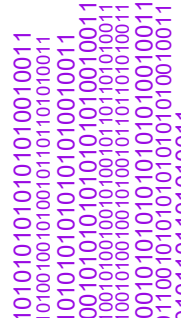
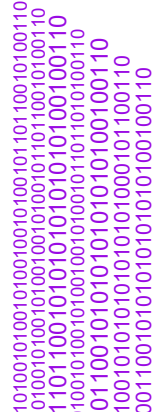
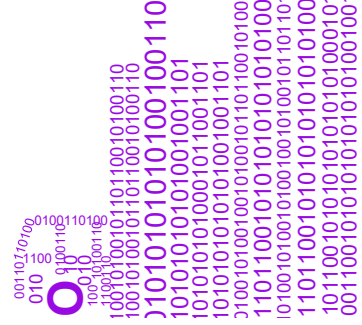
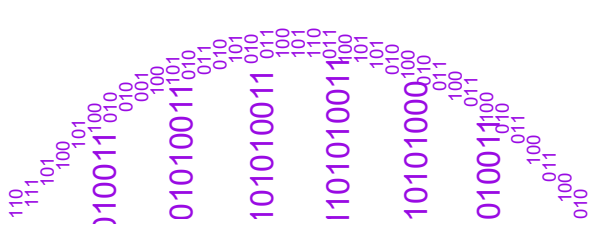
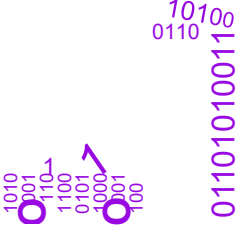
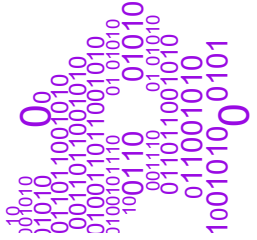
PHYSICAL  
DIGITAL  
DATA  
INSIGHT  
VALUE



# DIGITAL SOCIETIES ARE BUILT ON...



# ...DIGITAL INFRASTRUCTURE



# SCALES OF IOT

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**MASSIVE  
IOT**

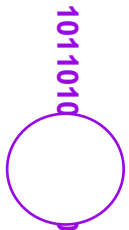
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**HIGH-PERFORMANCE  
IOT**

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**EMERGING  
IOT**





# MANUFACTURING

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## MASSIVE IoT

-  Risk monitoring
-  Usage monitoring
-  Process monitoring



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## HIGH-PERFORMANCE

-  Quality control
-  Process automation
-  Process control
-  Predictive maintenance
-  Resource optimization
-  Security & comms

10111

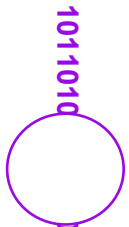
## EMERGING IOT

-  Precision robotics
-  Remote virtual control

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# TRANSPORTATION

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## MASSIVE IoT

-  Pallet management
-  SKU tracking

## HIGH-PERFORMANCE

-  Fleet management
-  Route optimization
-  Vehicle performance
-  Asset tracking
-  Load management
-  Predictive maintenance
-  Security & comms
-  Cargo monitoring

## EMERGING IOT

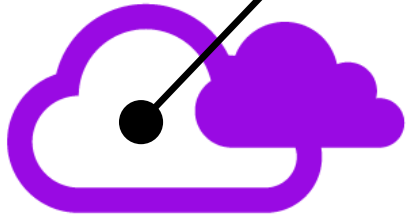
-  Autonomous vehicles
-  Remote virtual control

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101111 101010100110100



# NB-IOT IN A NUTSHELL

**DIRECT CLOUD CONNECTIVITY  
WITHOUT NEEDING A GATEWAY**



**LOW POWER FOR  
LONG BATTERY LIFE  
E.G. STREET LIGHT &  
PARKING SENSORS**

**LOW COST FOR  
CONNECTIVITY ON  
A MASSIVE SCALE  
EG. FIRE ALARMS  
& RUBBISH BINS**

**LOW COST SENSORS FOR  
LOW DATA APPLICATIONS  
E.G. UTILITY METERS**

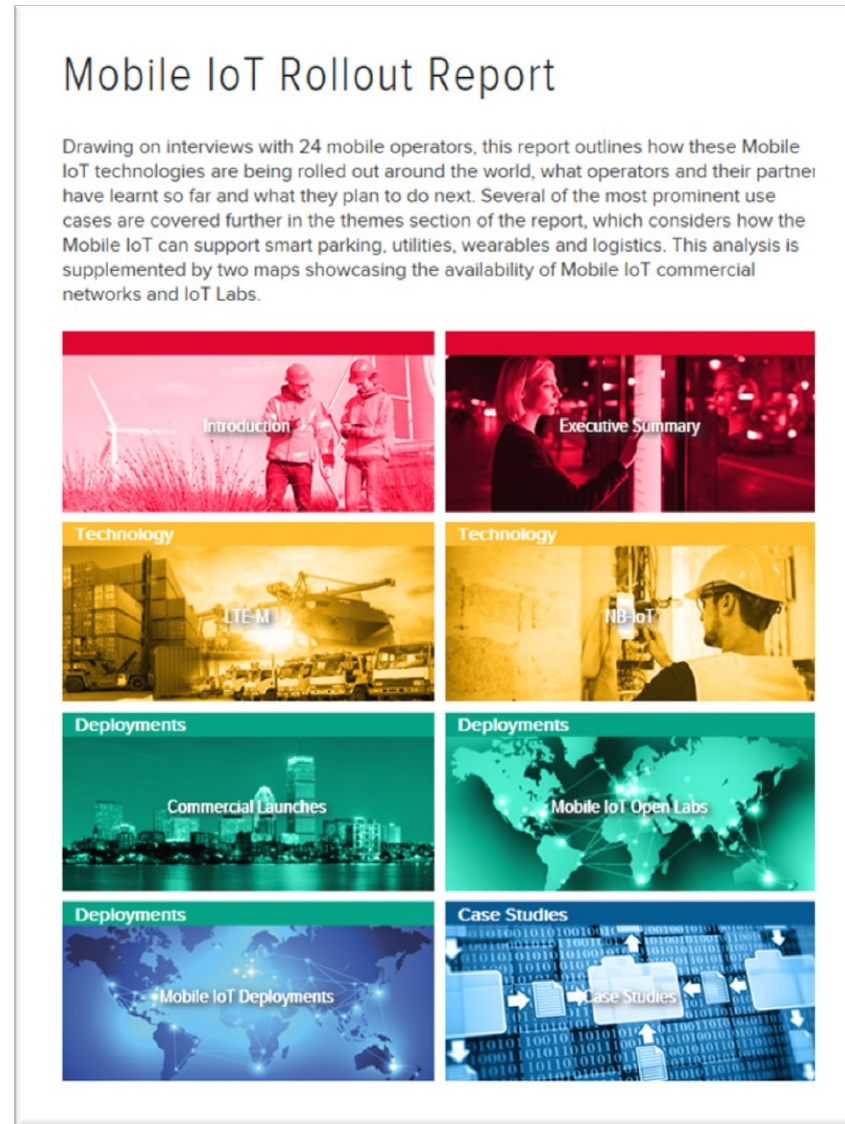
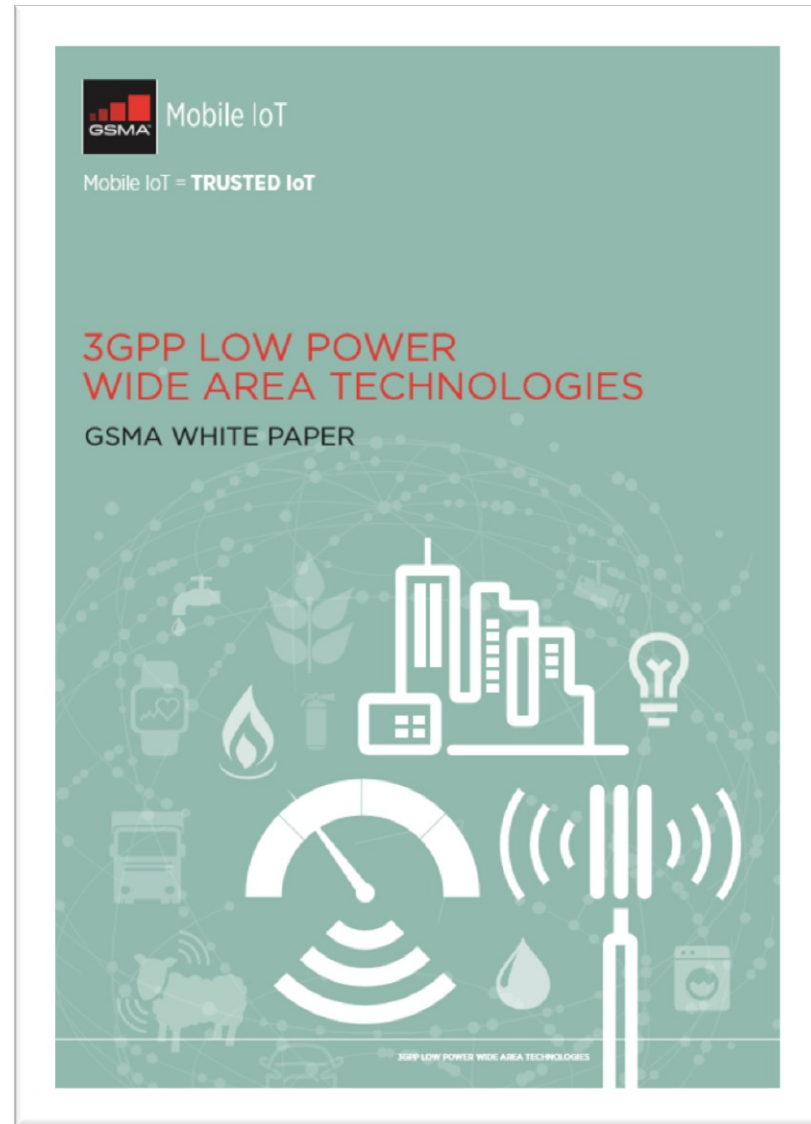
**DEEP INDOOR COVERAGE  
E.G. UNDERGROUND PARKING  
& SEWER MONITORING**





# CUSTOMER JOURNEYS





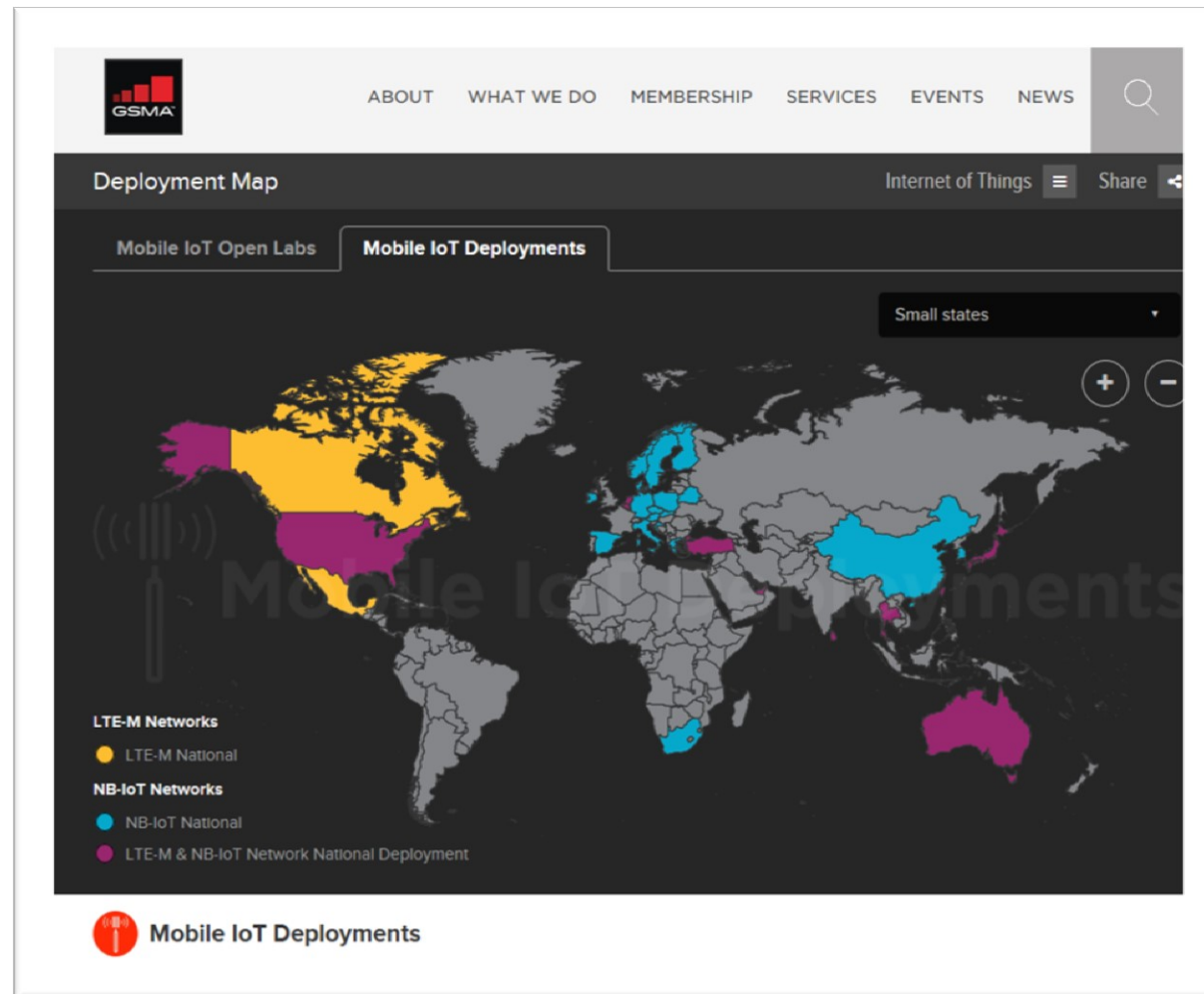
<https://www.gsma.com/iot/miot-rollout/>

<https://www.gsma.com/iot/mobile-iot-commercial-launches/>



# COMMERCIAL NETWORKS

> total 66 launches as of September 2018





# Market MATURITY and first movers?

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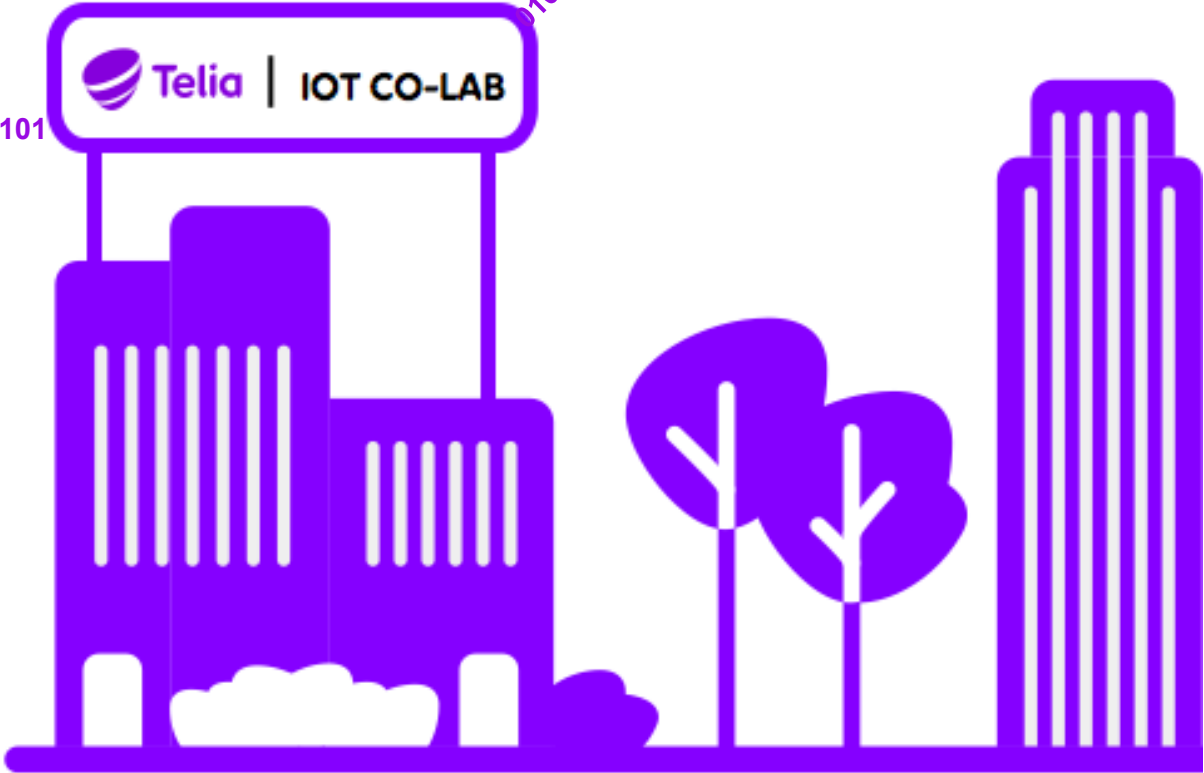
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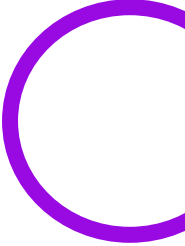
# MOVE FAST & MAKE THINGS

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Get a kick start with a delivery date.  
Pre-packaged and pre-priced deliveries for real-world challenges creating real-world value.



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# STRUCTURED JOURNEY

INSIGHT AND INPUT

Initial Workshop

HT/  
needs/  
ideas

Deep-Dive

CONCEPTS

Customer

COMMERCIALIZATION

Validate & Scale

PILOTS

1-3 Week Sprint

PROTOTYPING





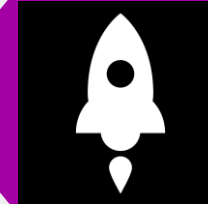


# 5G

## AND THE NEXT INDUSTRIAL REVOLUTION

Common platform

Industry-specific



**SENSORS &  
DEVICES**

**CONNECTIVITY**

**DATA  
STORAGE**

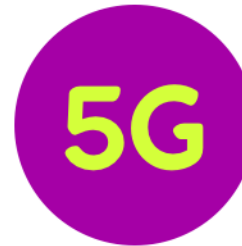
**ANALYTICS**

**APPLICATION**

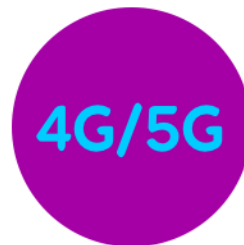
**DIGITAL  
SERVICE**







MILLISECONDS

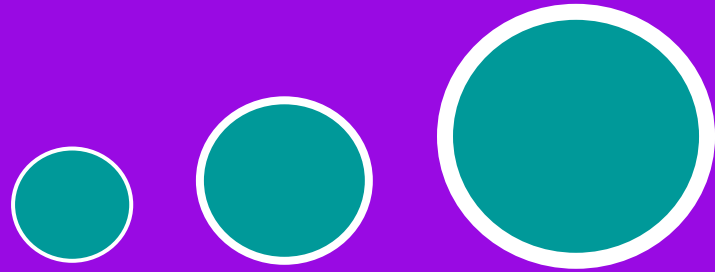


GIGABYTES



SQUARE METERS

FIRST STEPS WITH  
**PRIVATE LTE**







## FURTHER INFORMATION AND DISCUSSIONS

CONNECTED THINGS – 2018 EDITION

CUSTOMER WEBINAR 11.10.2018

SOLUTION CASES?

5G OR NB IOT CASES?





**Telia Company**

