

*Telefonica*

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# LPWA-Open for Business

## *It's time to execute*

Andrés Padilla  
New IOT Businesses Director

# Why does Telefonica believe in LPWA networks?



# Why does Telefonica believe in LPWA networks?

## IOT by Design

**Designed** for objects and with their needs in mind.

**Enabling** use cases that short range networks cannot fulfil.



Metering



Smart city



Connected Industry



Asset Tracking

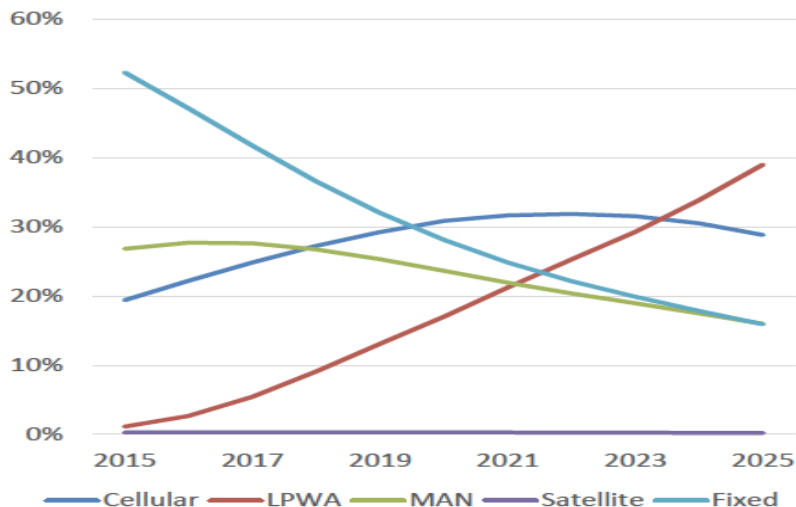


Agriculture and livestock

## Driver for wide area IOT Massification.

Wide area IoT connections by technology, 2015-25

Source: Machina Research 2016

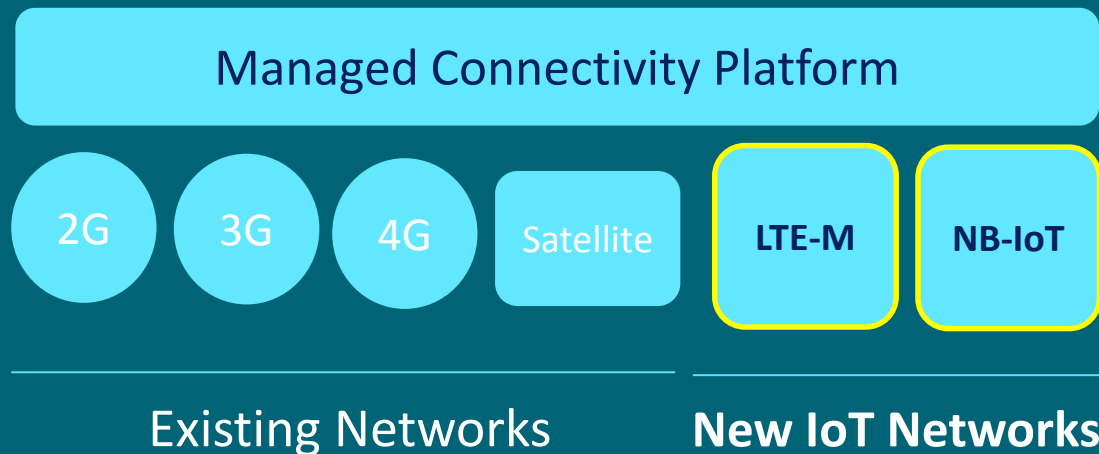


**How are we working to  
make this real?**



# Enabling our own Assets

Working to enhance our networks



We are currently **upgrading and extending our networks** to include new IoT capabilities that will be part of our commercial offering.

# Industry hand-to-hand collaboration

Working together with the IoT industry stakeholders



## Inclusive ecosystem

From Network vendors to device and chipset vendors.  
From MNCs to start-ups.

*“Joining forces with every actor in the IoT value chain”*

# Collaboration with our customers

Working with customers in new opportunity spaces

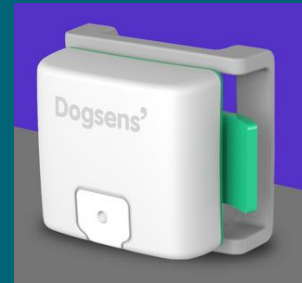
Enabling first-hand customer experiences in sector such as Utilities, Industry, Asset Tracking among others. Validating e2e commercial solutions in real life with real customers



Utilities



Industry



tracking



Consumer  
IOT

# What have we done so far?



# First LTE-M experiences in Europe

Complete First Live LTE Cat M1 Data Call in Europe

*“Telefonica is taking an early lead among operators in Europe and we are pleased to work with them in reaching this important milestone.”*

Georges Karam, Sequans CEO




Pioneer experiences hosted by



# First customers experiences with NB-IOT in Latam

Pioneers in Latin America working with real customers



Telefónica,  
Huawei y  
Kamstrup lanzan  
en Chile

15 de febrero de 2017

## **New value proposal for the market leader**

Operational efficiency and new commercial models. New use cases, value and visibility for customers.

## **Commercial Roll-out**

Real Data from meters installed in residential customers.

# Updating our networks for LPWA roll-out

NB-IOT and LTE-M network planning and roll-out



**Almost ready for take off**  
**Frequencies, Tech Availability**  
**and Deployment priorities**  
already agreed in our footprint.

**Our networks in Europe**  
**will be ready to support**  
**customer experiences**  
**from Q2Q3-2017**

# What comes next?

# Interoperability is a MUST

We have to make an industry effort to accelerate interoperability



**Standards do NOT mean  
interoperability**

**Complete interoperable stack**  
Device-RAN-Core

**Our compromise**  
*“Any device working on any  
Telefonica LPWA network”*

# Devices, modules and chipsets are key

Availability and pricing driving adoption



...and many others to come

**Key role in the complete scenario**

**Massification and pricing**

Two targets for two Hand-in-hand concepts.

**Finding the right balance**

Fragmentation vs. Complexity

**Hybrid solutions**

Important role and bet in the coming years.





# **LPWA is going to change the rules:**

**From Connections to Data**  
**Our position in the value chain**  
**Reconsider network architectures**

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