



# Internet de las cosas

Mejora nuestra forma de vida, conectando los dispositivos habituales entre ellos y con nosotros





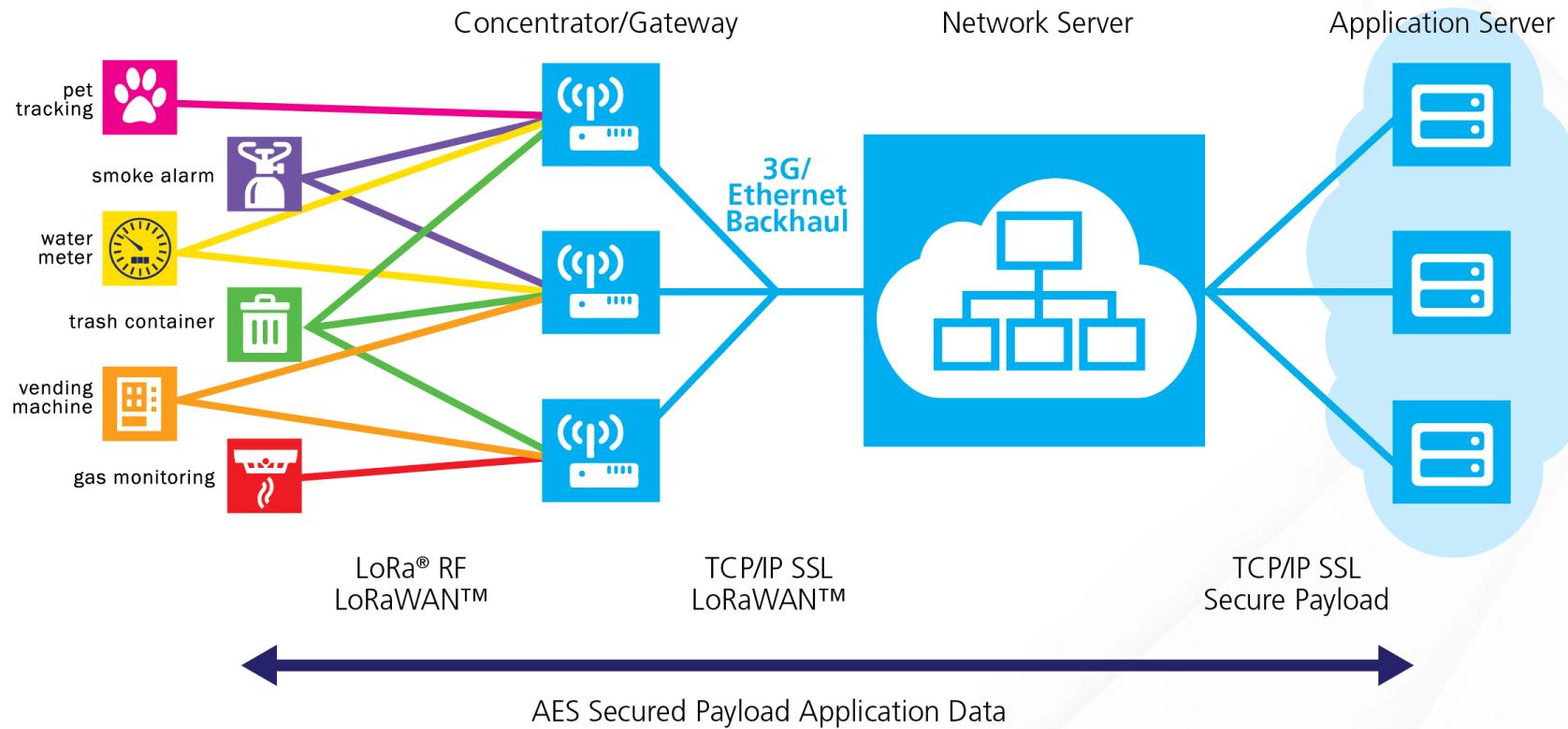
# La tecnología...

# LoRa® conectar redes LPWAN globalmente



**IoT conecta al mundo, LoRa lo hace posible!**

# Red LoRaWAN™



# Aplicaciones principales

Catalogo de mas de 400+ sensors para la mayoría de los negocios



CITIES



HOME &  
BUILDINGS



METERING



SUPPLY CHAIN &  
LOGISTICS



AGRICULTURE



INDUSTRIAL  
CONTROL



HEALTHCARE



ENVIRONMENT

# LoRaWAN™ networks worldwide coverage

**96**

Network Operators

**64**

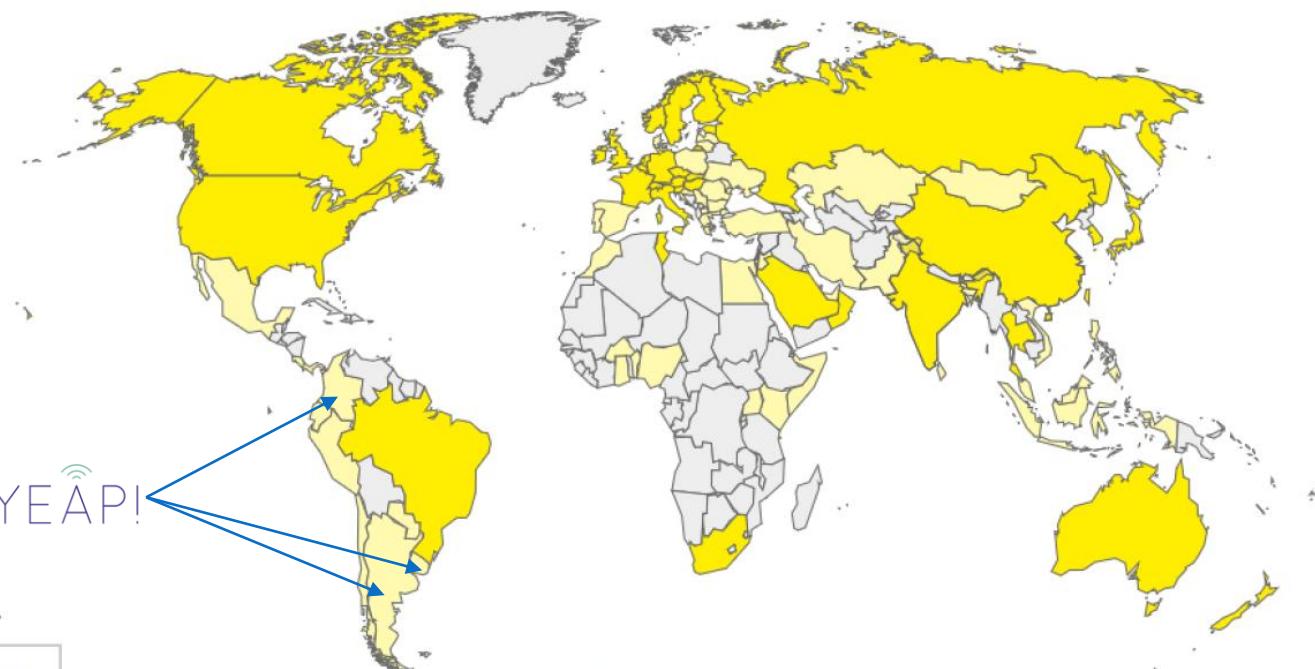
Alliance Member  
Operators

**51**

Countries operating in

**100**

Countries with  
LoRaWAN Deployments

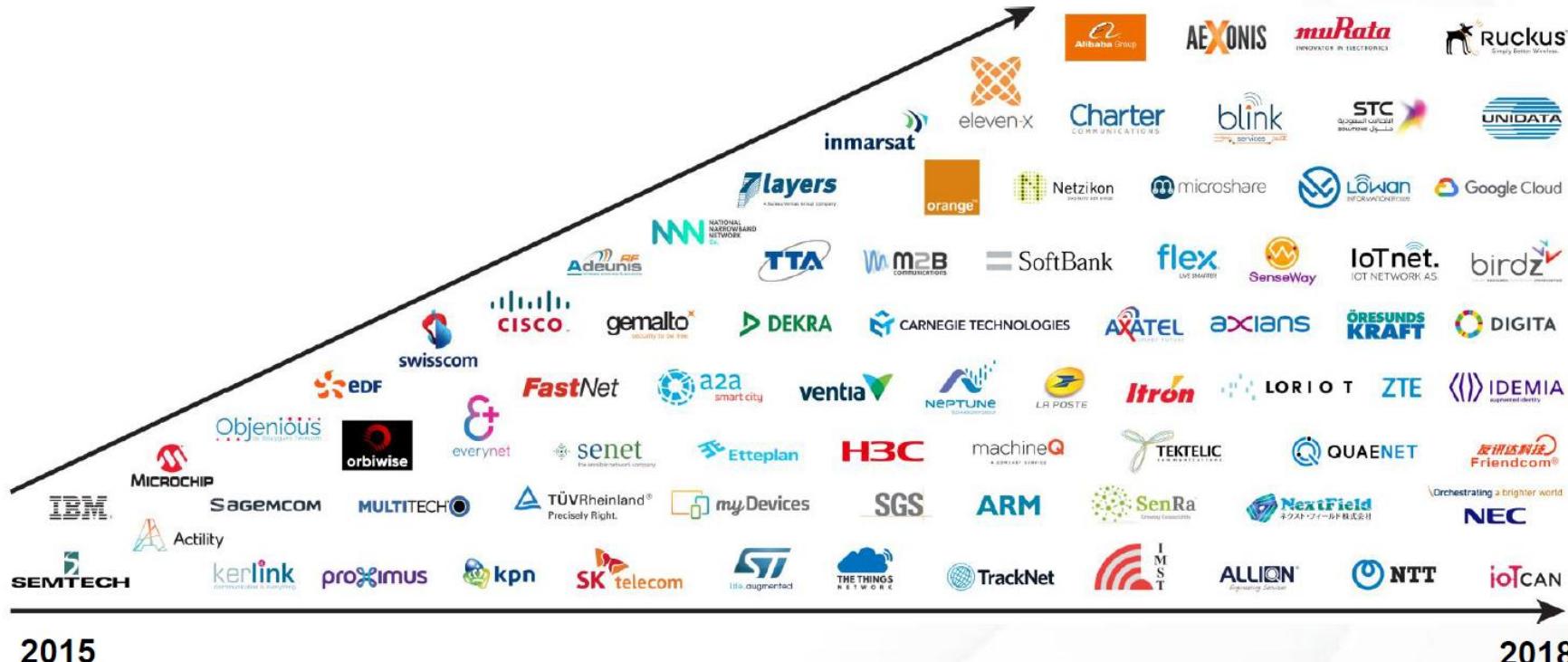


**LoRa Alliance™**

# La alianza sigue creciendo!!

## LoRa Alliance™ Sponsor & Adopter Members

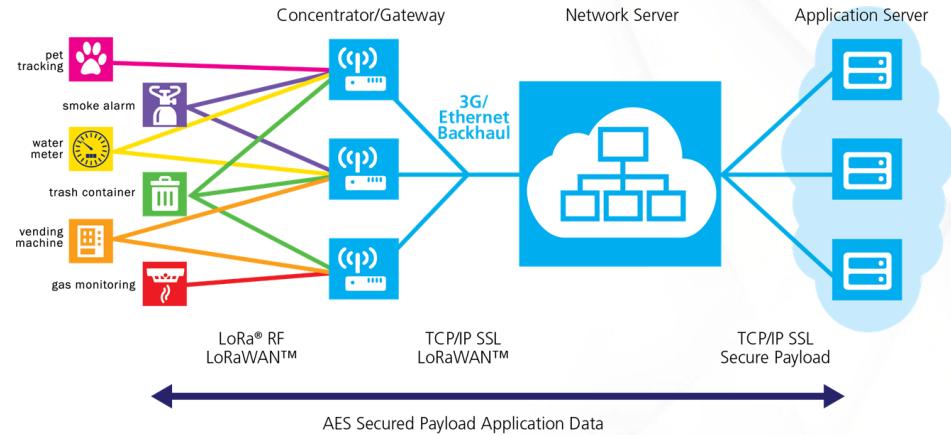
+ >300 Adopter Members



# LoRaWAN modularidad a la medida de la agricultura inteligente

Gracias a las multiples configuraciones de la red, se puede:

- Conectarse a una red pública, sin necesidad de invertir en infraestructura
- Expandir una red pública al lugar donde se necesite llevarla sin pagar licencias costosas
- Crear una red propia, privada, para aplicaciones específicas, **con o sin acceso a internet**





# Las soluciones...



# Monitoreo de ganado

## Quantified Ag:

Health monitoring for feed lots



## Medria:

Calving, heat detection, feeding monitoring, health monitoring

## Caravan Argentina:

Animal health monitoring, heat detection, tracking





# Rastreo de animales

Alptracker

Chipsafer

Gemtek

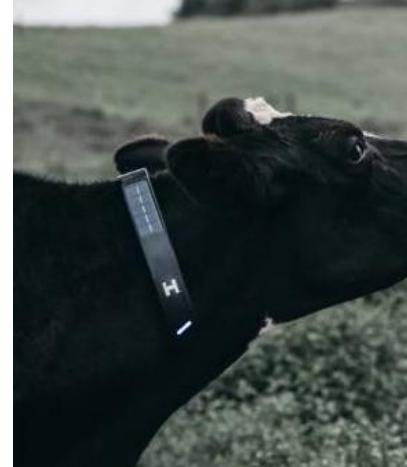
IoTag





# Alambrados virtuales

Agersens  
Halter





# Rastreo de activos

**Ffly4u:** GPS + LoRa

**Zane:** GPS + LoRa

**Gemtek :** GPS + LoRa

**Viloc :** LoRa location only





# Sensores de Nivel (agua, silos, etc)

**Tekelek** – Tank sensor

**Wesroc** – Tank sensor

**NEMEUS** – Level ultrasonic sensor





# Gestión medioambiental

NKE Wateco

Copeeks

Sensys

ATIM

PolySense

Waterly Argentina

ERMA Argentina





# Seguridad y control de accesos

Zane

XterConnect





# Estaciones Meteorologicas

**VisioGreen:**

weather station



**Sensys:**

Rain gauge, luminosity, wind speed, temperature



**mcf88:**

weather station



**METOS by Pessl:**

weather station





# Monitoreo de suelo

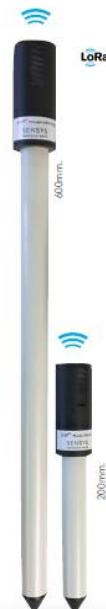
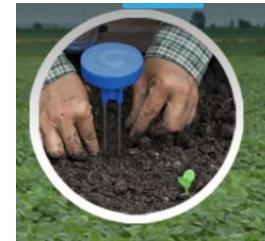
**Sensoterra**: soil moisture solution

**Teralytic**: soil moisture, NKP, temp, conductivity sensor

**Sensys**: soil moisture

**Decentlab**: soil water potential

**SenseFarm**: soil moisture



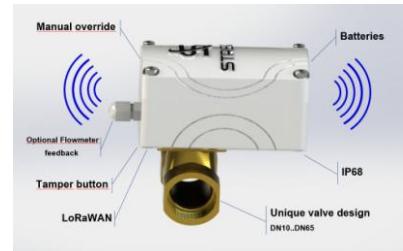


# Soluciones de riego

Netafim

Waterbit

STREGA





# Casos de uso...



## Challenge: Cattle monitoring

- The size of the heard is increasing and the farmer has to ensure quality, health, productivity with less time per animal :
  - Detecting heat on dairy cattle
  - Detect calving time
  - Detect sick cows in the herd

## Solution/Benefits:

- Heat detection increased from 45 to 95 %
- Calving detection reduces by 60 % the mortality on calves and cows
- Health issues detected 24 to 48h earlier, reduces medication consumption
- LoRaWAN Operator : None, only private networks so far
- Solution Provider: itk/Medria, Lar.Tech, ...





## Challenge: soil monitoring

- The environmental pressure and race against better yield induces
  - Need of better understanding the impact fertilization
  - Reduce the use of treatments and prefer preventive ones



## Solution/Benefits:

- Continuous monitoring of soil gives better vision of impact of fertilizer and allows adapted fertilization (20% reduction)
- Soil moisture monitoring will allow 20% consumption reduction in irrigation water



<https://www.youtube.com/watch?v=M7rUNLHpNkw>

<https://youtu.be/4RW6XorYpT8>

- LoRaWAN Operator : Senet, KPN, mainly private networks so far
- Solution Provider: Sensoterra, Teralytic



## Informacion de contacto



CÁMARA ARGENTINA DE  
**Internet**

**Mauricio Jancic**  
**Artimar Ltda**  
**+54-911-3644-0385**  
**mauricioj@artimar.com.br**

**Anthony Harris**  
**CABASE**  
**aharris@cabase.org.ar**

A photograph of a person with short hair and glasses, wearing a purple t-shirt, sitting cross-legged on a rooftop. They are looking down at a smartphone held in their hands. The background is a blurred city skyline at night, with numerous lit buildings and streetlights creating a bokeh effect.

www.cabase.org.ar