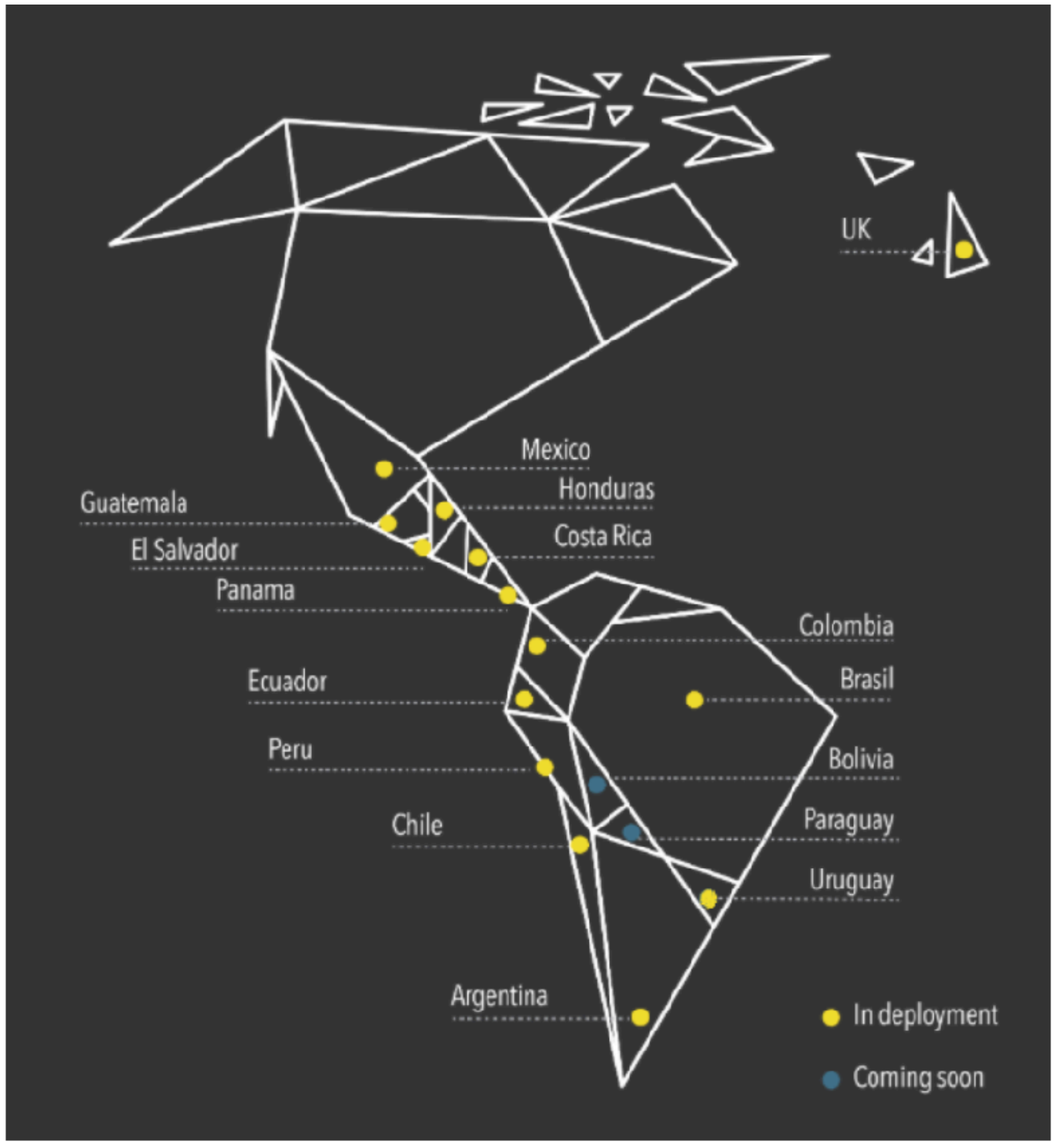
LA 0G Y EL IOT MASIVO

WND Group | **SIGFOX OPERATOR**

- WND is a pan continental IoT radio network operator **optimised for connecting sensors**
- WND's focus is on **low cost high volume sensor connectivity** which drives big data
- WND currently operates in **13 countries in Latin America as well as the United Kingdom**
- WND is the **exclusive** Sigfox Operator in all its markets



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WHY DOES 0G MATTER WHEN 5G WHEN IS ALREADY ON THE WAY ?

0G and 5G technology do not directly compete with one another, neither can one replace the other

As technology develops, the world will come to depend greatly on the ultra-high speed and bandwidth enabled by 5G, while 0G acts as a safety net to ensure that we are always connected to one another.

The fourth industrial revolution will be marked by massive Internet of Things adoption, and will rely on the full spectrum of connectivity from 0G to 5G.

IoT & Sigfox Basics | **Pequeños mensajes**

UPLINK
12-Byte payload

- Sensor data
- Event status
- GPS fix
- Application data

DOWNLINK
8-Byte payload

- Action / actuator trigger
- Device management
- Application parameter setting

PAYLOAD SIZE EXAMPLES

6 BYTES: GPS Coordinates

2 BYTES: Temperature Reporting

1 BYTE: Speed Reporting

1 BYTE: Object Reporting

0 BYTE: Heartbeat
Demostrate when an object is alive

A global network centered on wide accessibility, enabling data extraction at an unbeatable cost of production

0G

The best network for collecting and sending small messages

Enabling massive IoT and best backup for broadband networks and security systems

sigfox

Resilient Network

Cost efficient

Low Power

Global Network

Key 0G principles*

Scalable Globally

1st and only global IoT network present in over 70 countries.

Low power consumption, predictable life span, and close to zero maintenance.

Wide Area Coverage with Indoor penetration. Highly compatible with Bluetooth, GPS, 2G/3G/4G and WiFi.

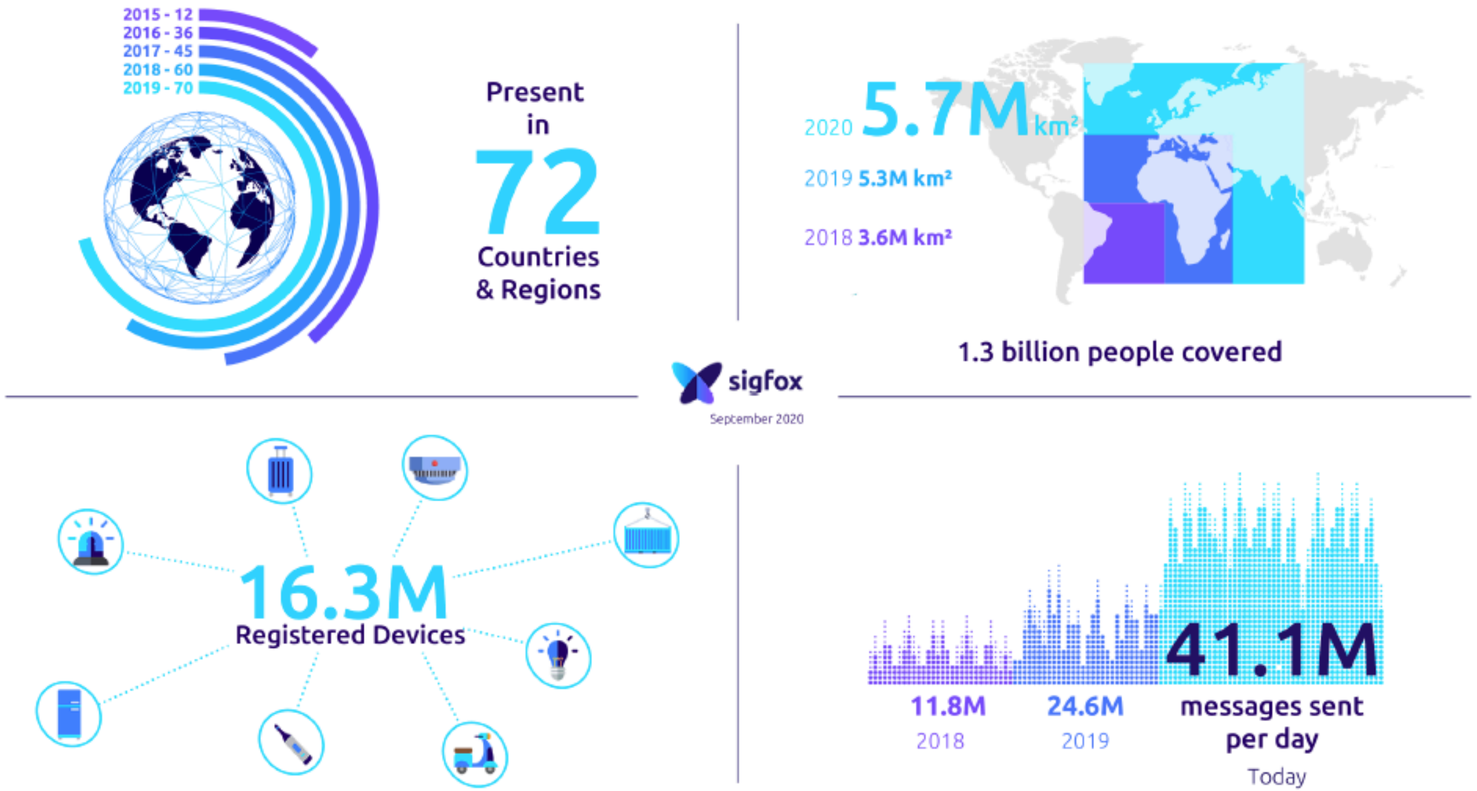
Low cost, easy-to-implement and use. No cables, no complex installations.

Anti-jamming and advanced security features.

Cognitive network based on Software defined radio, perfectly fitted for AI and Blockchain.

**Key principles introduced to the International Telecommunication Union (ITU) in 2019*

Our network footprint is growing at an exponential pace



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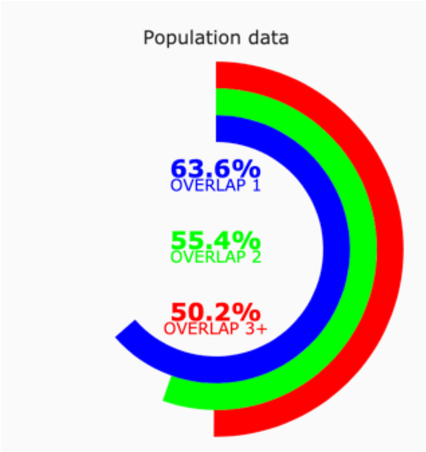
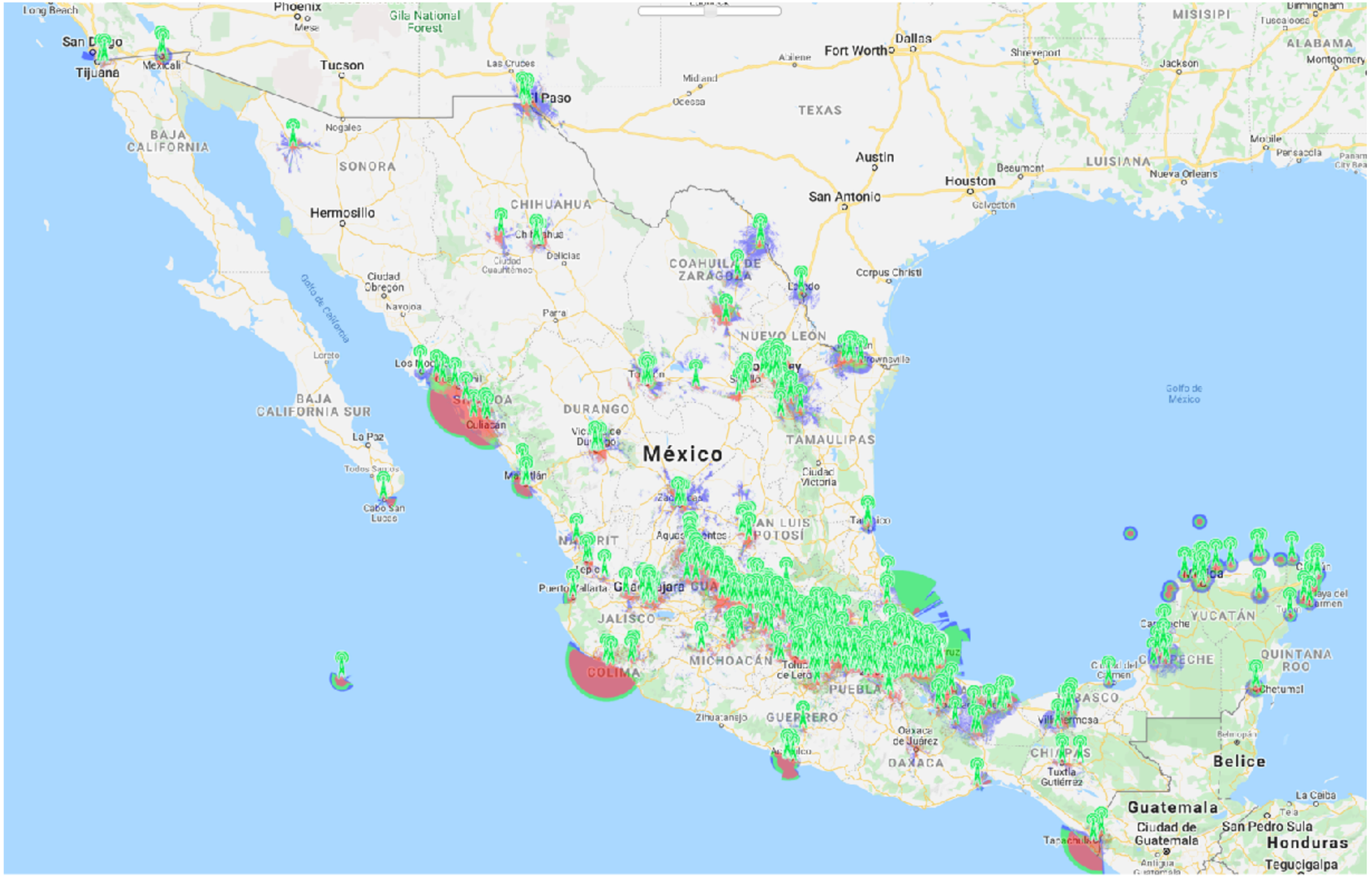
WND México | **OUR COVERAGE**

300 Ciudades con cobertura.





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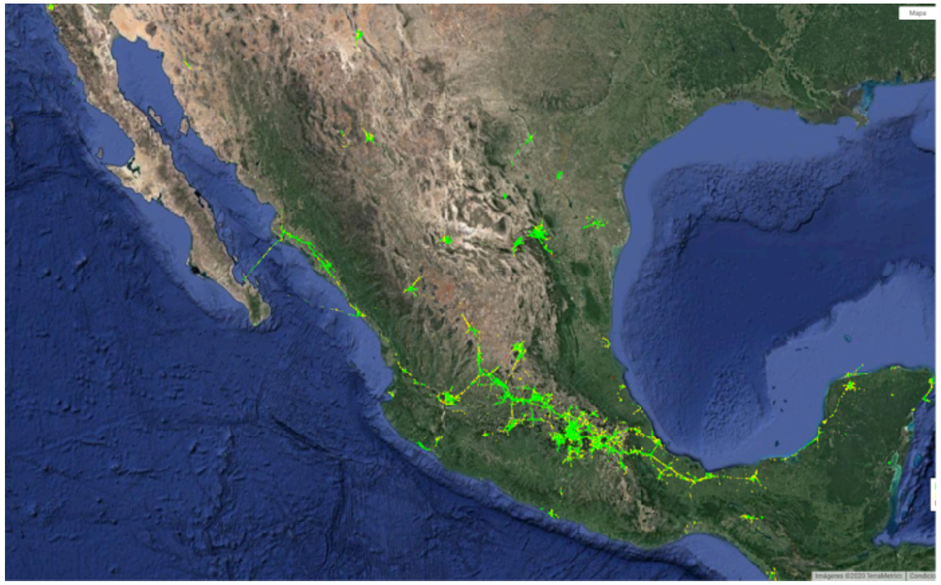
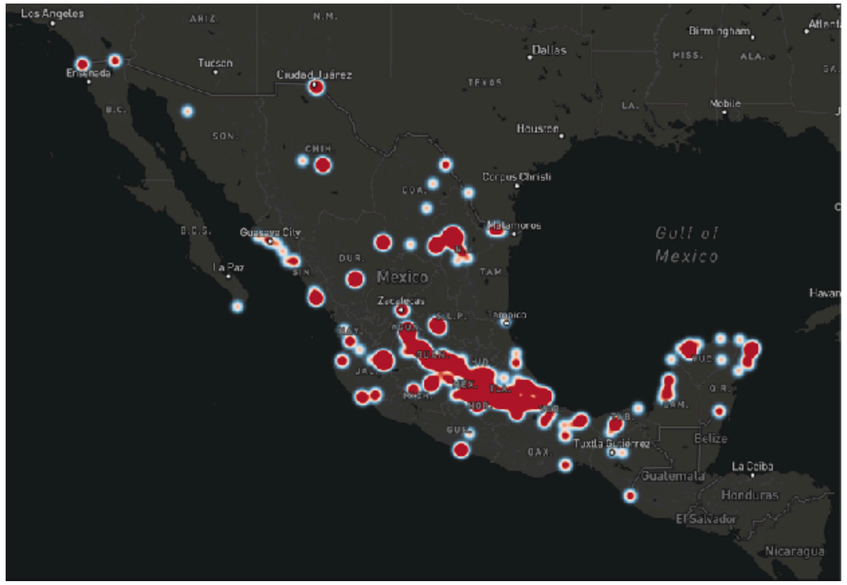
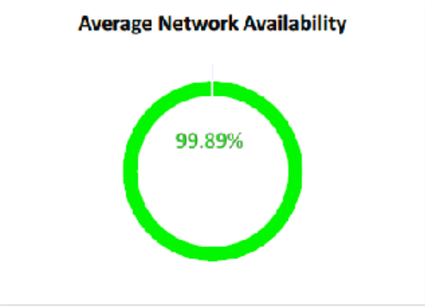
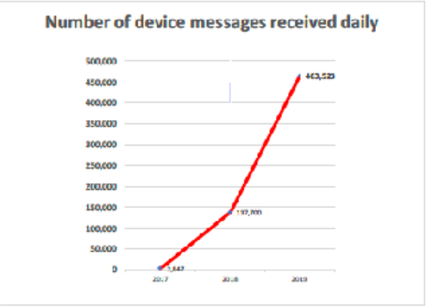
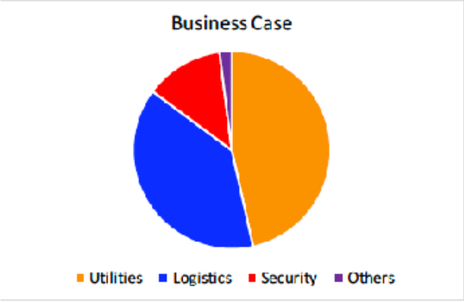
WND México | **OUR COVERAGE**











Servicio por encima de nuestros **SLA's y KPI's**

+ 500 mil mensajes Sigfox procesados exitosamente por **día**

La solución adecuada para **Utilities, Seguridad, Logística**

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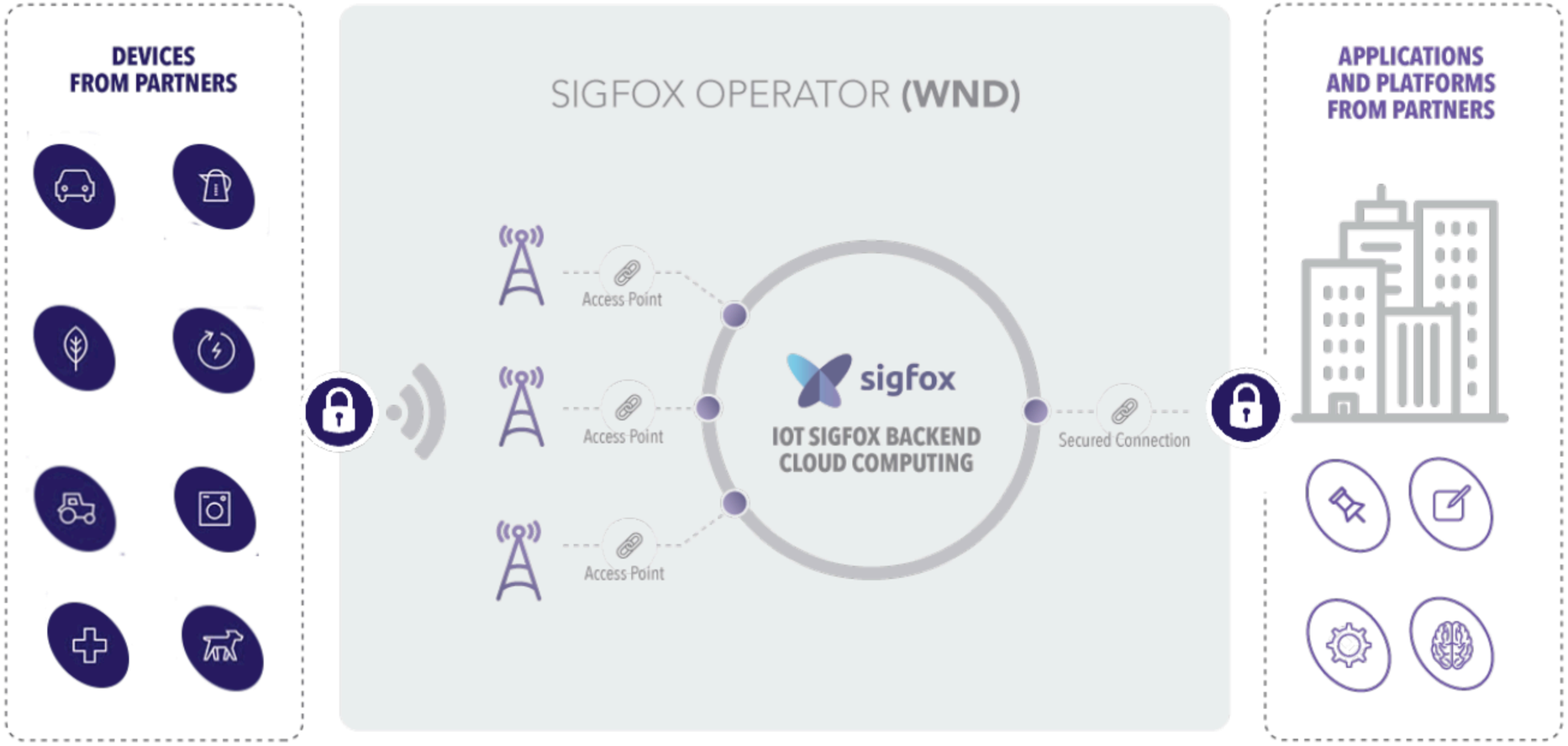
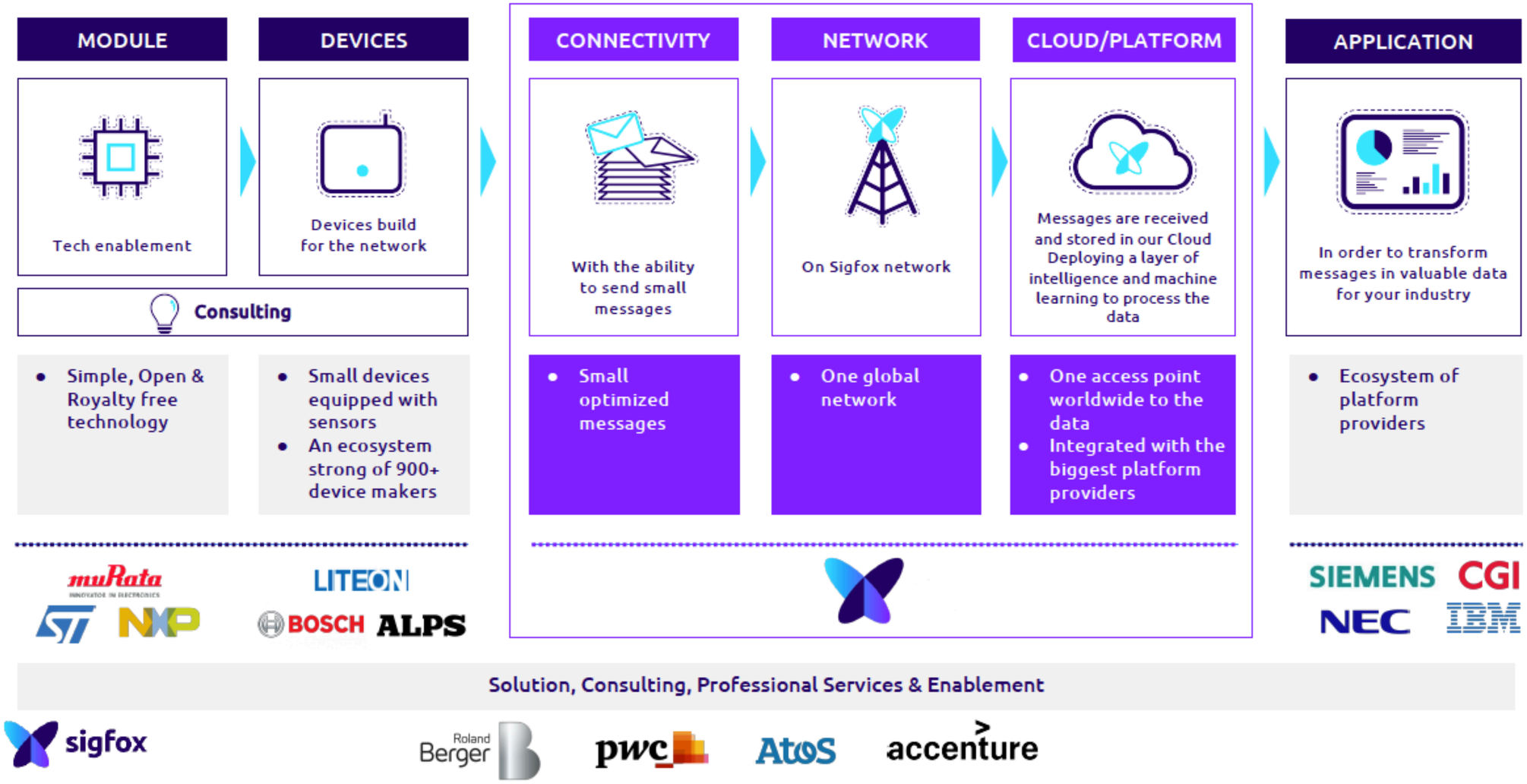
Devices

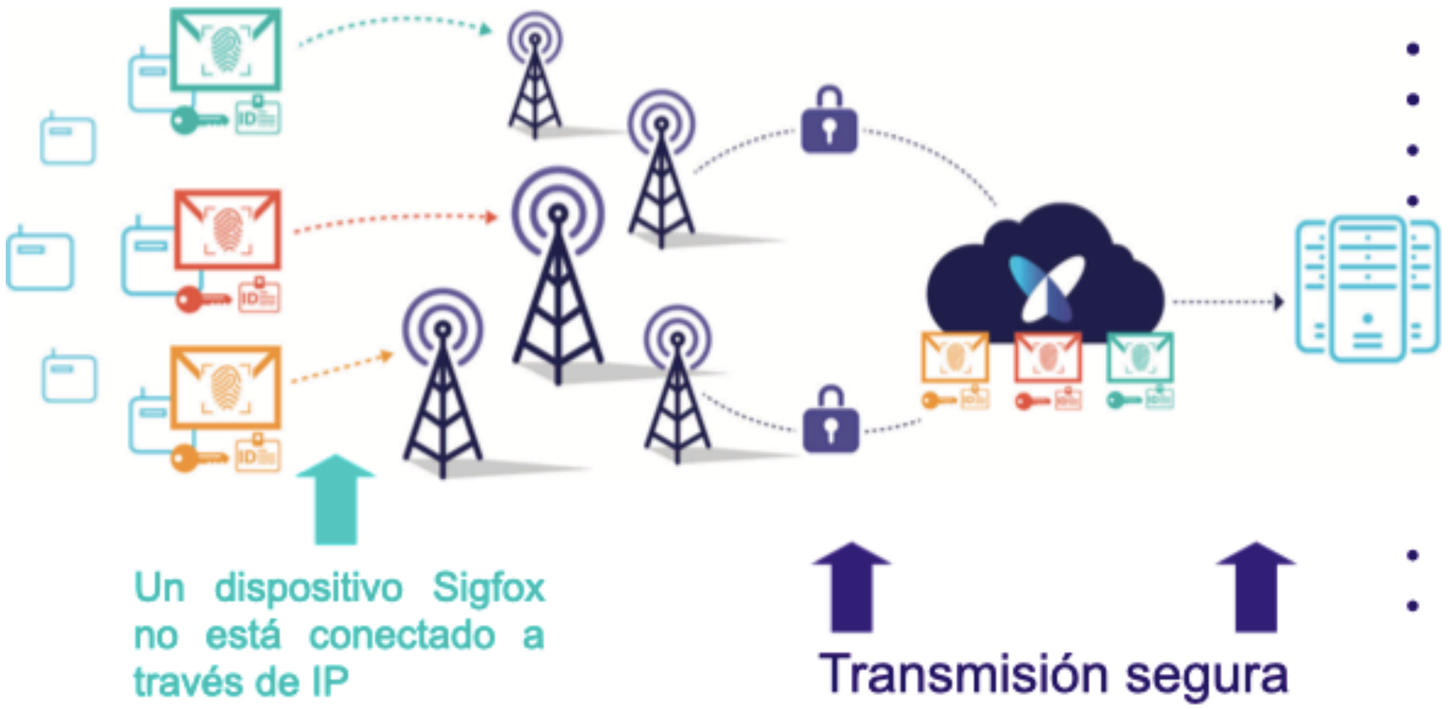
IoT & Sigfox Basics



IoT & Sigfox Basics | **Ecosistema**



WND Group | **End-2-end security**



Dispositivo inicia comunicación:

- Pequeño payload.
- Bajo bit rate.
- Frecuencias aleatorias
- Diversidad espacial.

Robusto ante interferencias: anti-jamming.

Prevención ante ataques DDoS.

Transmisión segura:

- De la antena receptora a la nube.
- Dela nube al repositorio de datos

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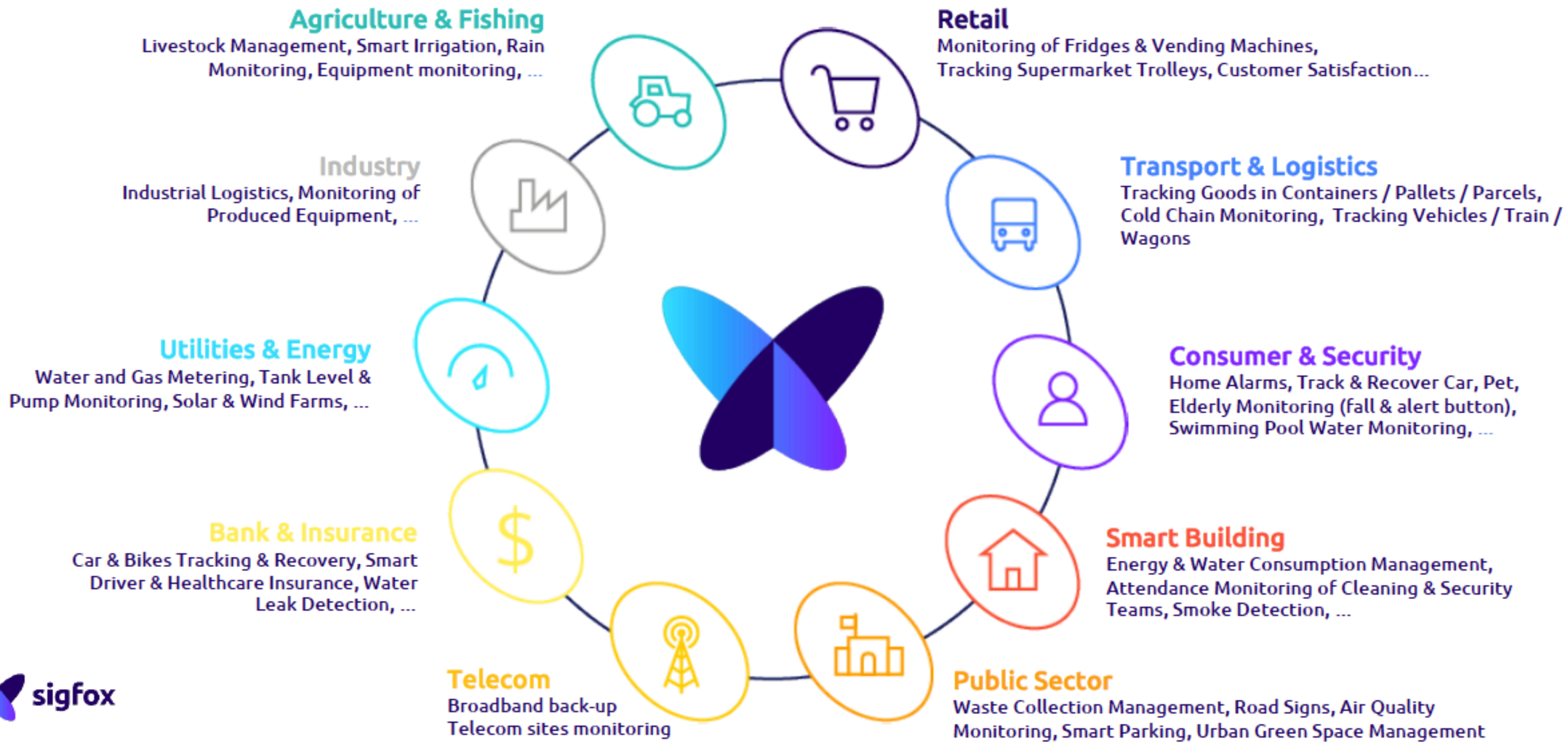
IoT & Sigfox Basics | **Verticales y casos de uso**



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Electricidad

- Soluciones de medición para organismos reguladores y distribuidores de electricidad públicos y privados, en baja y media tensión. (CFE - Astrum - Cantilever - NxtIoT).
- Soluciones para submedición de redes eléctricas públicas y privadas, en baja, media tensión y solar (NxtIoT - Iluméxico)

Agua

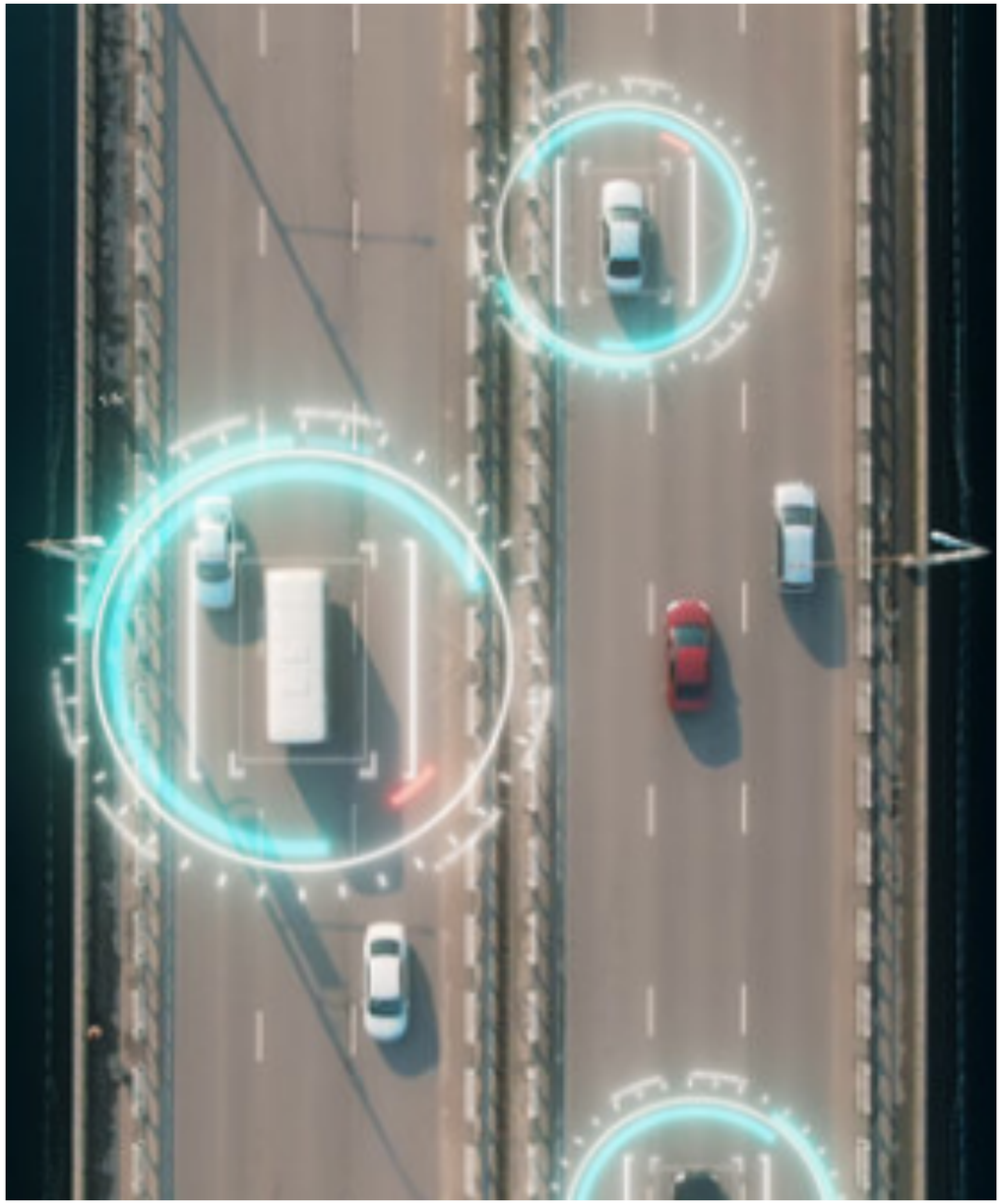
- Soluciones de medición, monitoreo, distribución, corte y reconección para organismos reguladores y distribuidores de agua públicos y privados, a nivel residencial e industrial, así como soluciones en el Agro y de cosecha de Agua. (Water Meter Corp - Hydroconta - Sabesp - Laager - Sacmex - NxtAgro - Evvos - Rotoplas).

Gas

- Soluciones de medición, monitoreo y distribución, de Gas LP y Gas Natural, a nivel residencial, comercial e industrial (El Gaas, Edison Effect, Gasbot, NxtIoT, Pegasus Control, Nimblu, Duo Digit)

Logistics

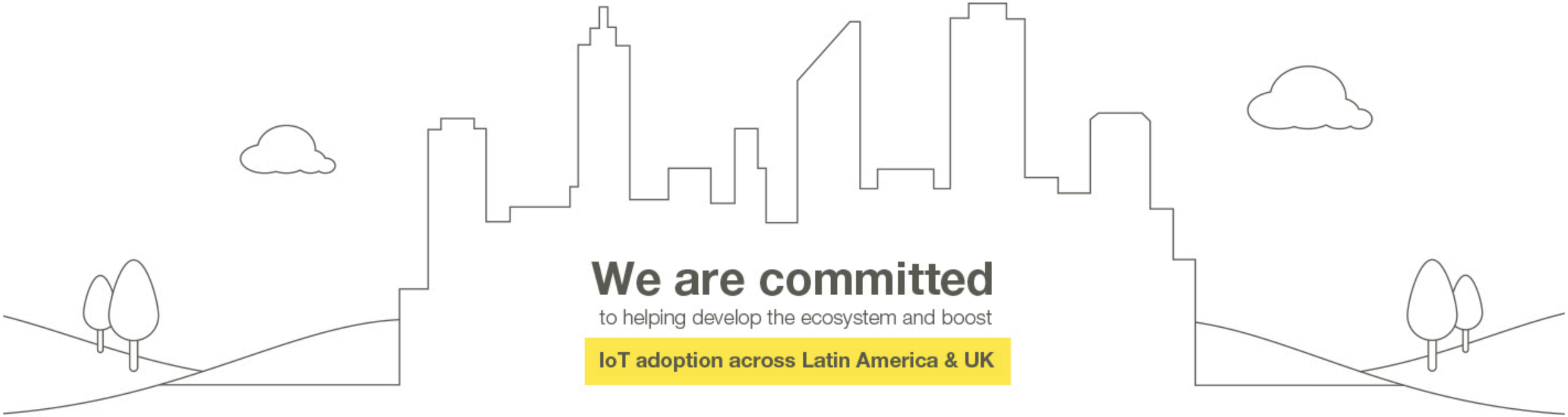
- Soluciones para la cadena de suministro que requieren alternativas complementarias para el monitoreo del transporte de carga, vehículos, contenedores y activos (Suntech - Sitrack - Michelin - NxtIoT - Viakable - ATSA - Sigmais).



Botón de pánico

- Soluciones para generar alertas (emergencias de seguridad, salud, servicios) en cualquier momento.
- Proporcionar al sector de la salud una solución de botón de emergencia móvil para ayudar a monitorear las necesidades de las personas mayores y las que se encuentran en condiciones especiales.

(Policía CDMX, hospitales en España (atención Covid), Sayme, IoTclick, Unabiz, Simple Hw)



We are committed

to helping develop the ecosystem and boost

IoT adoption across Latin America & UK

Integrators

Silicon

Module

Device Markers

Cloud

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