

Internet of Things (IoT)



Facts and figures / February 2022

In summary

The Internet of the future is the Internet of Things (IoT), within which devices come to life, become attentive, talk to each other and above all, talk with us, with our friends, family, colleagues, and with our day-to-day contacts.

Our vision for IoT: inclusive, smart and trusted

For Orange, IoT technology must be inclusive and useful, accessible to everyone, everywhere and adapted to multiple needs. IoT technology must also be smart, delivered through secure, reliable networks. And we believe that it must take shape

through an ethical approach, from its design to the way it operates, building trust with end users and with industrial, commercial, institutional and academic partners.

Key figures

25.1
million

connected objects (B2B market)

9,000

digital experts, including 750 IoT experts

at Orange Business Services (along with an ecosystem of partners) to address the entire scope of end-to-end IoT projects, including connectivity, security, data analytics/AI, cloud and integrations services

1.1
million

connected objects

sold in Orange shops in Europe in 2020

LTE-M

network deployed in 5 countries

Find out more

Orange's ambition: relying on assets to cover the value chain

Orange's ambition is to become a key IoT player in Europe and to cover the entire value chain. To do that, Orange relies on its historical assets, starting with its networks and its close proximity to customers, who are supported through four activities:

- Connectivity solutions adapted to customer uses.
- The distribution of connected objects in its physical and digital sales channels.
- Business services, supporting its enterprise customers through digital transformation.
- Services to consumers, offering value-added services in the connected home, healthcare and wellness sectors in various European markets.

Orange's mission

As an IoT market leader at European level, our research has contributed to a number of technologies that are essential for both current and future networks. Our research and innovation teams support the deployment of Orange's LoRaWAN®, LTE-M, NB-IoT and 5G networks and participate in the standardization of 5G for IoT:

- LoRaWAN®: national coverage in France, several cities and regions covered in Romania and Slovakia.
- LTE-M: France, Romania, Belgium, Luxembourg, Poland, Slovakia and Spain.
- NB-IoT: Belgium, Luxembourg, Spain, Slovakia and Romania.

To increase our IoT coverage in Europe and North America, we have signed numerous roaming agreements with AT&T, KPN, Vodafone and Deutsche Telekom, among others. And because the IoT revolution will be collective, we have chosen to join forces with partners (device manufacturers, service providers, integrators...) in order to build an open ecosystem and bring our customers the most innovative offers.

Finally, we think that trust is essential for IoT to succeed and each user must have control over the way their data is used. Orange is designing and deploying increasingly reliable and secure networks and platforms, as well as stronger cybersecurity capabilities. This also means defining clear and transparent guarantees for data access and confidentiality, in line with Europe's regulatory framework for protecting personal data (GDPR).

Orange's consumer ambition and achievements

In Spain:

- **Videovigilancia Orange** (2021): a home video security service based on a high-resolution wifi camera that customers can configure and control through the Orange Smart Home application.

In Belgium:

- **Smart Home** (2020): Domotics portfolio helping customers turn their home into a smarter and safer home that makes life easier. It is structured around three main types of devices: connected light bulbs, smart cameras and smart power plugs, and the Orange Smart Home application.

In France:

- **Maison Connectée** (2019): A smart home service enabling remote monitoring of connected objects such as light bulbs and power plugs, through a single application accessible via a smartphone.
- **Maison Protégée** (2019): An all-inclusive connected alarm system, installed by a professional and managed by a 24/7 remote monitoring center, controlled via the Maison Protégée mobile app

Orange's business ambition and achievements

IoT presents opportunities in all business sectors to create value. To support customers in their projects, Orange Business Services leverages its dual Operator and Integrator capabilities and developed vertical expertise in:

Connected Cars and Products

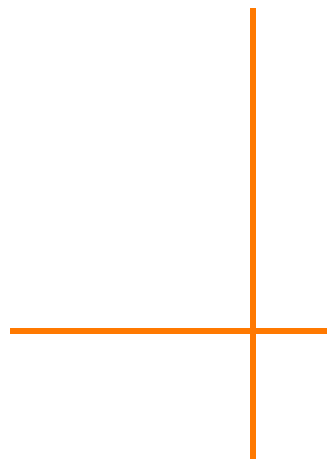
- by delivering global IoT connectivity solutions to leading OEMs whatever their size, location or industry;

Smart Cities and Smart Buildings

- to support the digital transformation of cities and regions;

Smart Industry

- with its team of experts to address the challenges of automation and data exchange in technology and processes within the manufacturing industry.



Orange Business Services has built a complete end-to-end IoT value chain allowing customers to collect and ingest the data into cloud-based applications:

Devices:

- Through the IoT Journey website dedicated to Orange IoT partners, businesses have access to a large choice of devices and modules selected by Orange for their IoT projects.

IoT Managed Connectivity platforms:

- to manage cellular connectivity.

Live Objects platform:

- to manage multi-connectivity, devices fleet and data collection, allowing customers to enrich their data to be ingested onto Azure, AWS and Orange cloud-based platforms. Dashboards are accessible from smartphone and web portals.

Dedicated applications:

- such as Smart Tracking and Smart Operations, application development and analytics.

Connectors:

- to build customers solutions with various partner leveraging on its rich ecosystem, such as ABB France (world leader in energy technologies and automation) on Smart Building Services and Quuppa, for Smart Tracking solutions.

To scale up IoT industrialization

Orange, Lacroix Group, ST Microelectronics and Sierra Wireless have created in June 2021 the “IoT Continuum” partnership. By bringing together for the first time expertise across the entire IoT value chain (Connectivity, Design & Manufacturing, Hardware and Software) under one roof, partners of the IoT Continuum will support European businesses accelerate the deployment and industrialization of Massive IoT over LTE.

IoT solutions have been adopted by large numbers of customers, including:

- [Safran Aircraft Engines](#) (2021): Tracking and management of tools in large-scale production areas.
- [Lynk & Co](#) (2021): “Always on and connected” cars using IoT mobile connectivity across Europe.
- [De Jong DUKE](#) (2021): Connected smart coffee machines across Europe and the United States.
- [De Beers Marine](#) (2020): Geofencing solution to enhance crew safety in offshore mining.
- [KDDI](#) (2020): Connectivity management solution integrated into KDDI’s platform, providing secure, reliable IoT connectivity for Toyota and Mazda to enhance the driver experience through advanced services.
- [Port of Antwerp](#) (2020): 5G network to connect a tugboat of the Antwerp Port Authority, allowing the ship to stream real-time images and other data (radar, sonar) to the control room.

For more information

- [White paper: “Industrial IoT: it’s high time to get started!”](#)
- [White paper: Security of IoT](#)
- [White paper: IoT and LPWA](#)