Telefónica Tech

TheThinX

The applied technology laboratory
of Telefónica Tech

What is
TheThinX?

A real environment to design, test, validate and monitor technological solutions before large-scale deployment

TheThinX is Telefónica Tech's lab for designing, testing, validating, and monitoring **IoT, AI & Data, Cybersecurity, and Cloud solutions** applied to real-world projects.

The space is part of Telefónica's Innovation and Talent Hub and provides a multidisciplinary environment where companies and institutions can accelerate innovation, reduce risks, test new use cases, and optimise the development of new solutions.
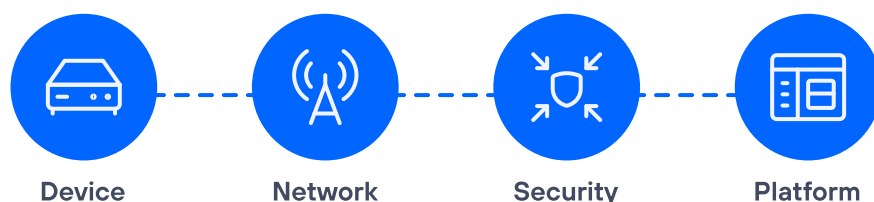
What we do
and how we approach it

We integrate and test all the technological components of an IoT solution

From devices to connectivity, data management, and security, at TheThinX we simulate real environments to verify the complete performance of each solution before its commercial rollout.

End-to-end validation

Device — **Network** — **Security** — **Platform**

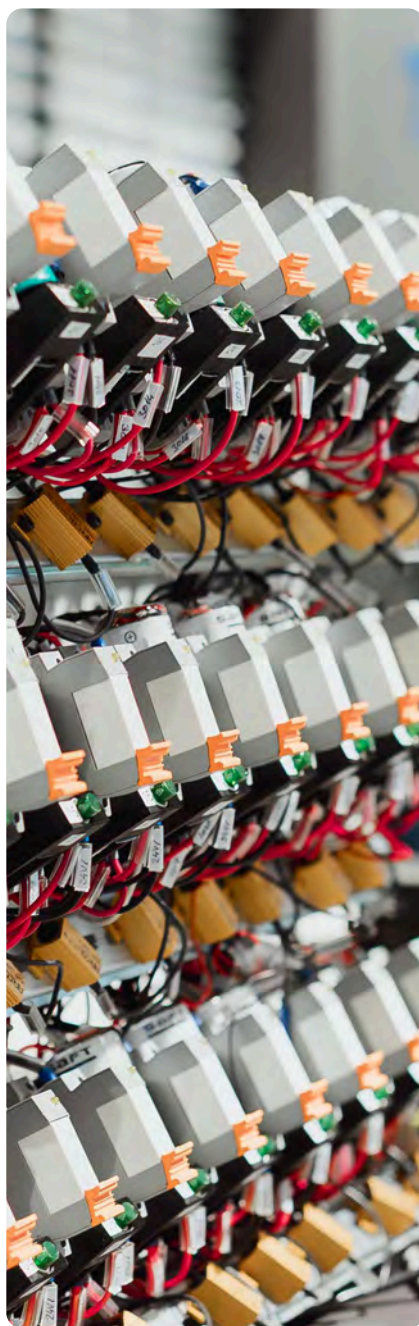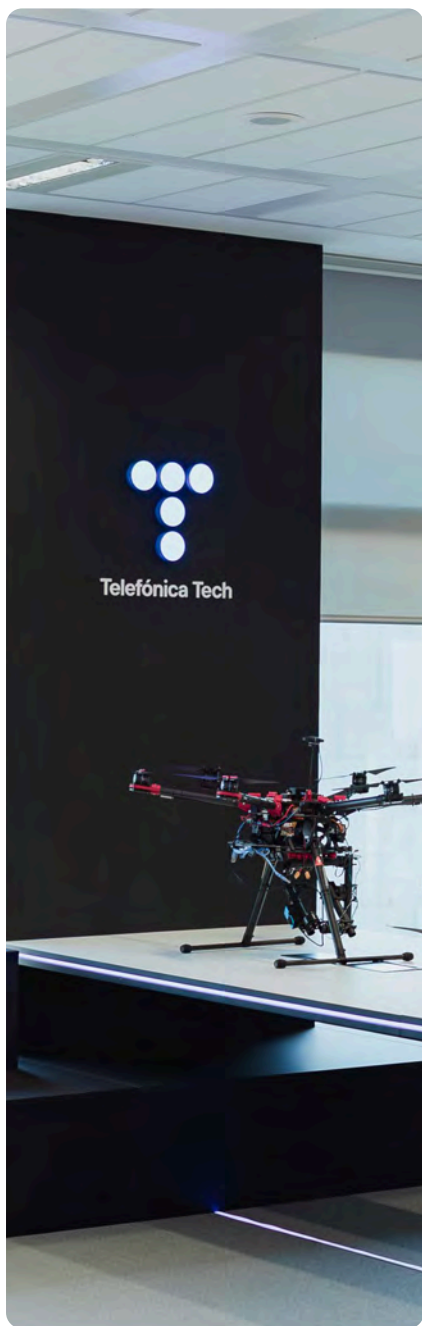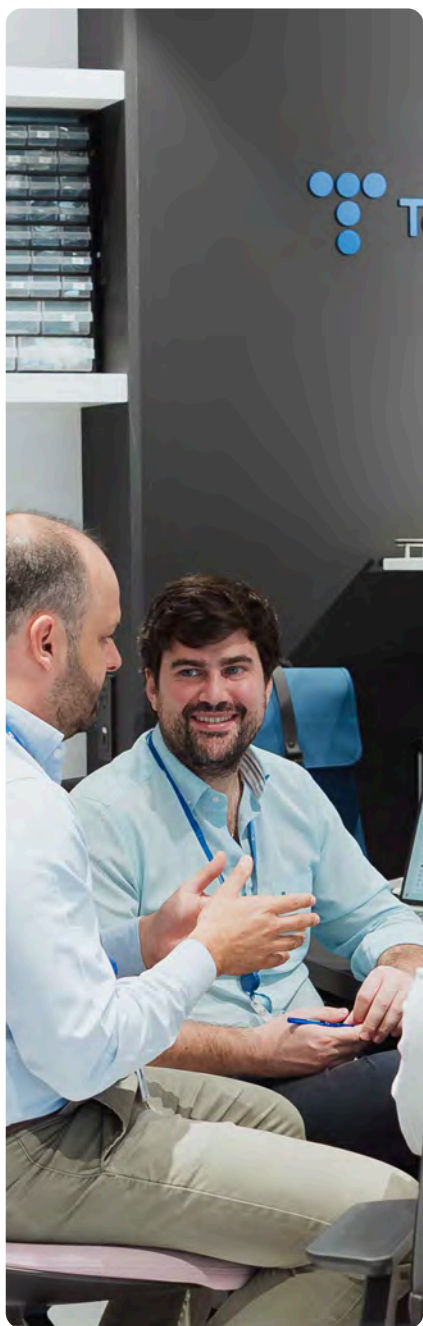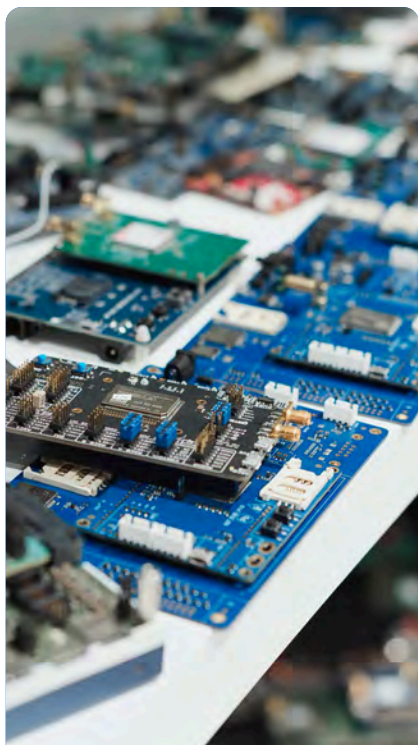| Validation across NB-IoT, LTE-M, 5G, and private networks | Technical testing of coverage, consumption, firmware, and network | Assessment of real behaviour in simulated conditions | Identification of incidents and advanced technical resolution | Testing with embedded and satellite connectivity |

Telefónica Tech

TheThinX

Infrastructure and technical capabilities

Specialised labs and state-of-the-art equipment

TheThinX has all the tools necessary to develop, test, and optimise IoT solutions, from the design phase through to final integration.
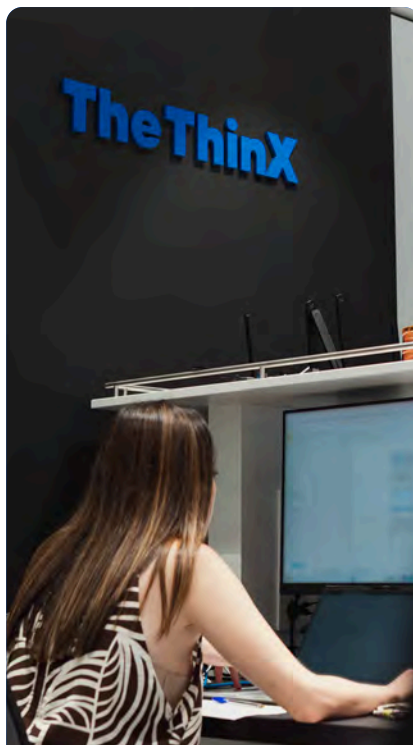
Technical laboratories and work areas

IoT Solution Design & Concept Lab

Integration of solutions and pilot development with the product team

We design tailored IoT solutions with you, identifying the best components to digitalize your process, from the initial idea to the proof of concept. Here, we co-create, prototype, and validate projects that maximize impact and minimize risk.

Network & Validation Lab

Testing under simulated conditions (climate, network, location) and technical validation of devices and solutions

We evaluate the performance of complete IoT solutions to ensure stability and efficiency. We test SIMs, NB-IoT, 5G, LTE-M, satellite, and private networks, guaranteeing optimal connectivity and working on the resolution of identified issues.

IoT solution industrialisation zone for large-scale deployments

End-to-end monitoring of performance in real-world deployments and early detection of incidents

We industrialise large-scale IoT services such as smart meters or traffic beacons. We design processes and 24/7 monitoring tools to ensure reliability and efficiency in mass rollouts.

Technical laboratories and work areas

Digital Forensics Lab

Analysis of malicious artefacts, evidence preservation, and forensic evaluation of cyber incidents

A dedicated space for digital forensics to investigate incidents, collect evidence, and reconstruct attacks. It enables learning from each case and strengthening organisational cybersecurity.

Cyber & Cloud Corner

Interactive space where we explore today's most pressing cybersecurity and cloud challenges

In this area, visitors can discover how AI is driving digital protection, data sovereignty in hybrid environments, and the impact of quantum computing. Through live demonstrations and real-world use cases, we showcase solutions that anticipate the future of security.

Hardware Hacking Lab

Physical and logical security testing of electronic devices and firmware

A specialised area for auditing electronic devices, hardware, and firmware. We detect vulnerabilities and build protective mechanisms at the physical layer.

OT Security Lab

Cybersecurity testing and threat detection for industrial systems

Dedicated to protecting critical industrial environments. We test new technologies from vendors and industry-specific use cases, in sectors such as manufacturing, energy, or transport, strengthening cyber-resilience.
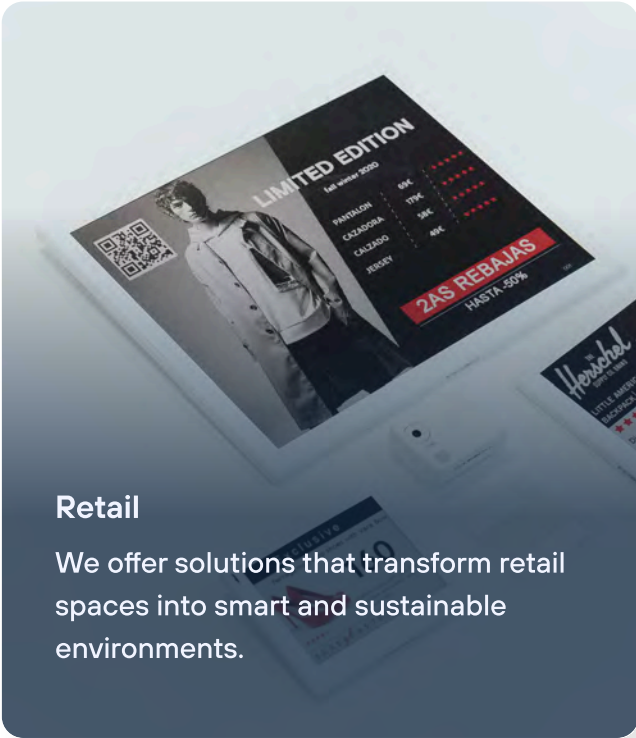
Exhibition area

Solutions:

Health

We drive the digitalisation of the healthcare sector with innovative solutions that simplify processes and improve the quality of care.

Drones

We promote the use of drones as intelligent platforms which, thanks to their connectivity and analytical capabilities, offer applications across key sectors.

Retail

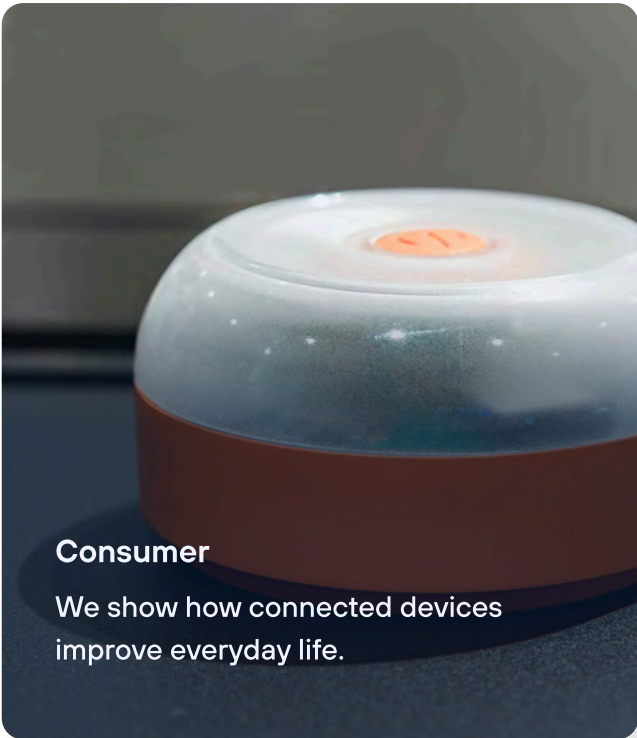We offer solutions that transform retail spaces into smart and sustainable environments.

Green Tech

We present IoT solutions that optimise resources and reduce environmental impact.

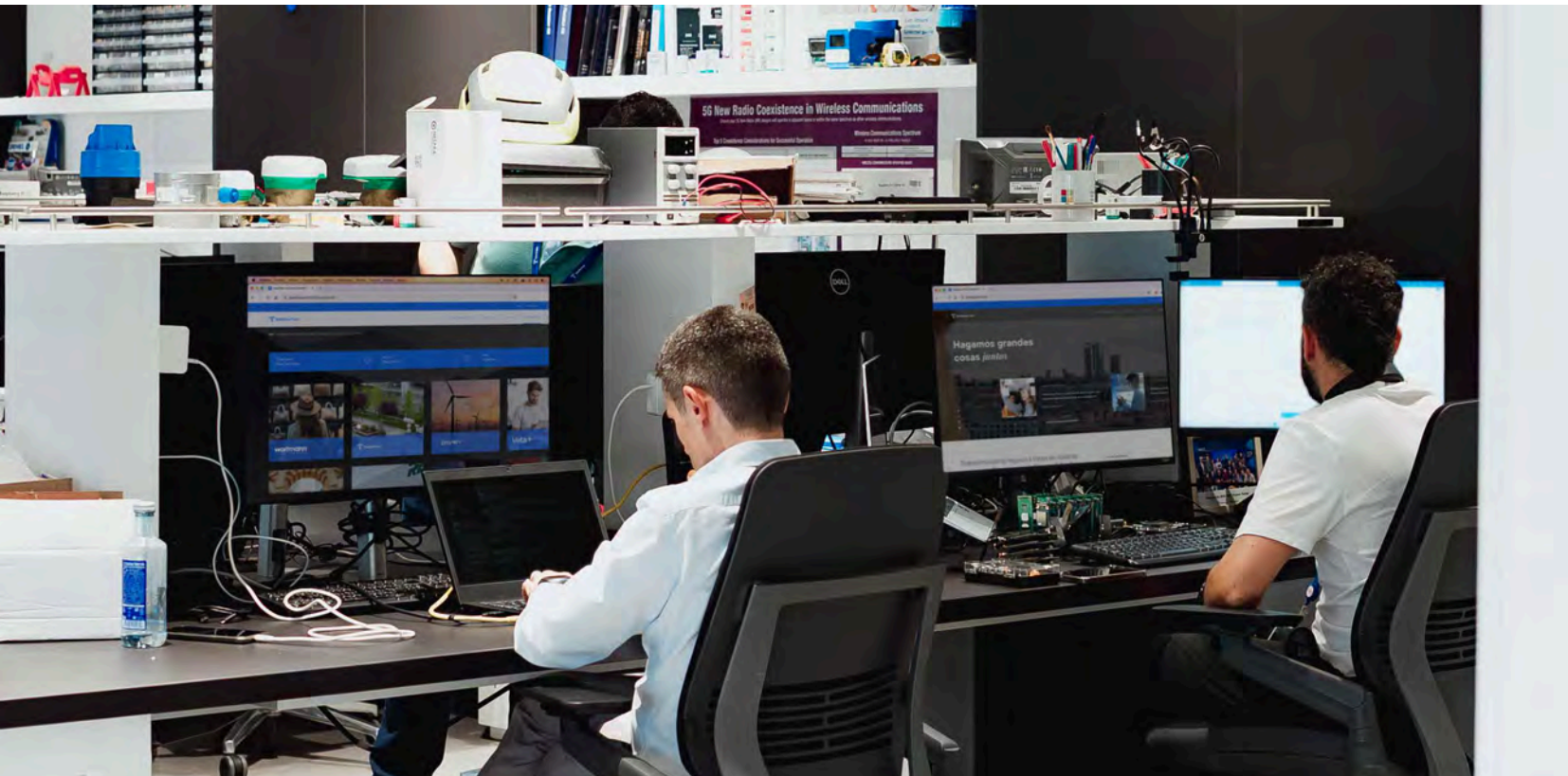# Exhibition area

Solutions:

Consumer

We show how connected devices improve everyday life.

Industry

We offer solutions that modernise processes and ensure reliable connectivity.

Security integrated from the design phase

We test cybersecurity at every stage of the lifecycle

The lab enables device, communication, and platform testing against real threats, ensuring compliance with regulations and security standards.

Kite Platform: managed and secure connectivity

Real-time visibility and control from a single platform

Kite Platform, Telefónica Tech's IoT solution, centralises connectivity management, devices, and advanced analytics.

- Operational intelligence and event analytics
- Built-in security for networks and devices
- Remote IoT device management
- Network traffic, usage, and status control

Telefónica Tech

TheThinX

Business benefits

Accelerate and implement innovation with technical confidence

Designing, testing and monitoring your IoT solutions at TheThinX helps reduce risks, accelerate deployments and improve the quality of the final product.

Reduced development costs and time

Minimised technical risks

Faster time-to-market

Improved final product quality

Greater confidence in technical decision-making

Access Telefónica Tech's device validation program

Industry applications

Solutions tailored to real challenges across industries:

Industry

Health

Energy & Utilities

Retail

Mobility

Smart Cities

Sports

Banking

Telefónica Tech

TheThinX

Why choose us?

- +30 experts working on IoT, Cybersecurity, Cloud, AI & Big Data solutions

- +600 strategic partners we collaborate with

- +700 m² of technology space for testing, showcasing, and validation

- +100 IoT solutions validated per year, across multiple industries

- +50M IoT devices connected

- +30k hours of pentesting & red teaming

- +16k critical devices monitored in cybersecurity

- +100M security events monitored

- +28 Petabytes of Storage-as-a-Service

- +16 Petabytes of Backup-as-a-Service