



TheThinX

Telefónica's Applied Technology
Laboratory

What is TheThinX?



TheThinX is Telefónica's laboratory for designing, testing, validating and monitoring **IoT solutions and AI & Data components, cybersecurity and cloud solutions**, which are applied in practical projects.

This space is part of Telefónica's Innovation and Talent Hub and offers a multidisciplinary environment where manufacturers and customers from businesses and institutions can accelerate their innovation, reduce risks, test new use cases and optimise the development of new solutions.

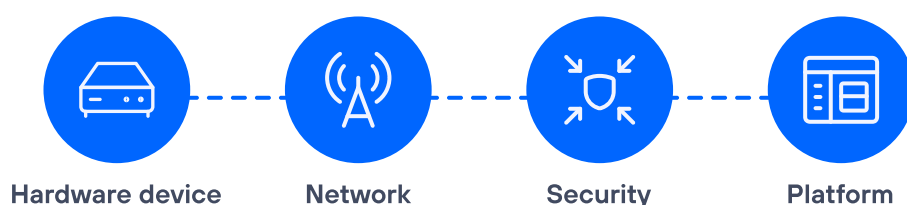


What we do and our approach

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

TheThinX simulates real-world environments – from devices to connectivity, data management, platforms and security – to verify the full functionality of each solution before and during its commercial roll-out, serving as a seal of quality assurance for the service Telefónica provides in its projects.

End-to-end validation of a solution



Validación en conectividad con redes IoT: NB-IoT, LTE-M, RedCap, 5G, NTN y redes privadas, entre otras

Pruebas técnicas de conectividad, consumo, actualización remota y servicios de red

Evaluación del comportamiento real en condiciones simuladas y de red real

Identificación de incidencias y resolución técnica avanzada

Pruebas con conectividad embebida y vía satélite

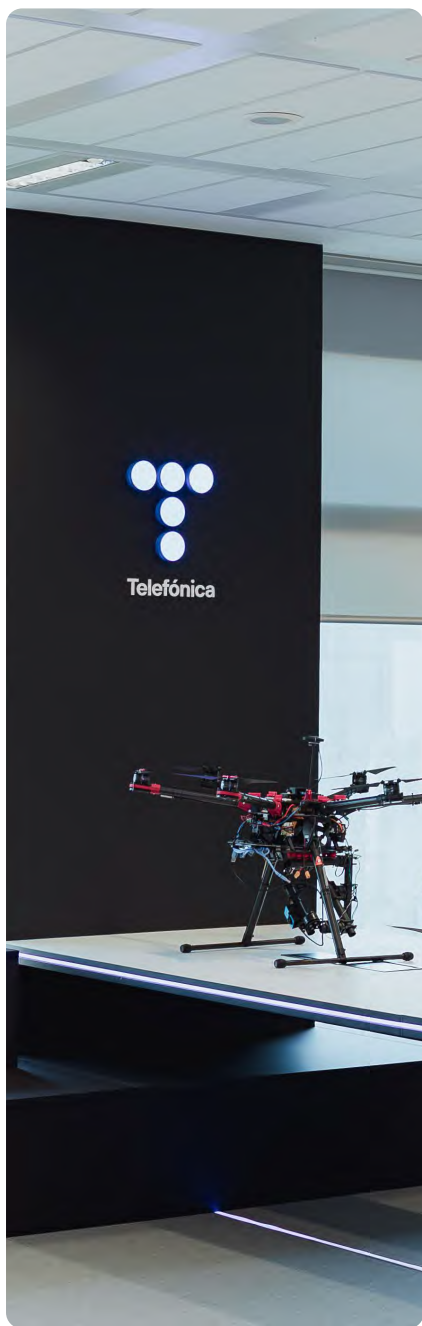


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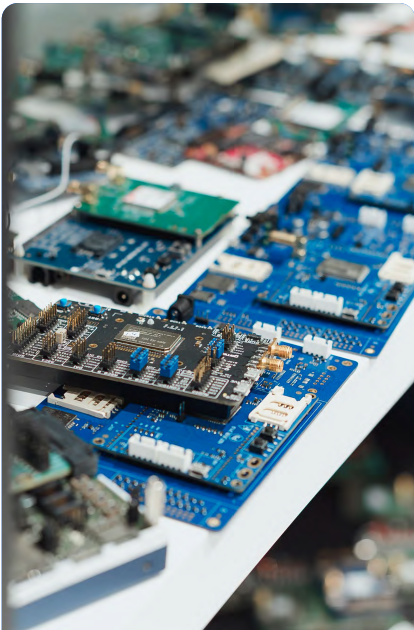
Infrastructure and technical capabilities

Specialised laboratories and the latest equipment

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



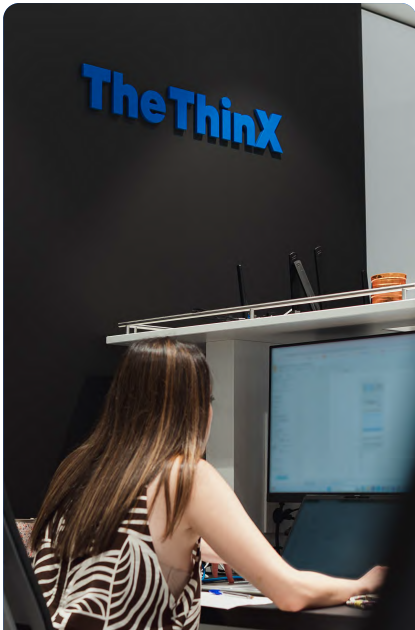
Technical laboratories and workspaces



IoT Solution Conceptualisation and Design Laboratory

Solution integration and pilot development in collaboration with the Product team

We work together with our customers and partners to design bespoke IoT solutions, identifying the best components to digitalise your process, from the initial idea to the proof of concept. Here we co-create, we prototype and we validate projects that maximise impact and minimise risks.



Validation and Network Laboratory

Technical testing and validation of devices and solutions

We evaluate the performance of end-to-end IoT solutions to ensure stability and efficiency. We test every element in the chain – from SIM cards to connectivity technology, including security – to ensure optimal connectivity and work on implementing any identified improvements.



IoT Solutions Industrialisation Laboratory

Development of operational procedures and tools for industrialisation

We industrialise large-scale IoT services for any type of device (meters, V16 beacons, streetlights, IoT routers and other ad-hoc devices). We design 24/7 monitoring processes and tools that ensure the reliability and efficiency of field deployments.

Technical laboratories and workspaces



Cyber & Cloud Corner

An interactive space where we explore the latest challenges in cybersecurity and the cloud

Visitors find out how AI is driving digital protection, data sovereignty in hybrid environments and the impact of quantum computing in this space. We use demonstrations and real-world case studies to showcase solutions that anticipate the future of security.



Hardware Hacking Laboratory

Physical and logical security testing of electronic devices and firmware

An area for auditing electronic devices, hardware and firmware, where we detect vulnerabilities in devices and develop protection mechanisms at the physical level.

Digital Forensics Laboratory

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

A facility specialising in digital forensics to investigate incidents, collect evidence, and reconstruct attacks. It enables us to learn from each case and strengthen the organisation's cybersecurity.

OT Industrial Security Laboratory

Cybersecurity testing and threat detection on industrial systems

Dedicated to the protection of critical industrial environments. We incorporate and test new technologies from manufacturers and use cases across the industrial, energy and transport sectors, strengthening the cyber-resilience of industrial systems.

Exhibition area



We showcase a small selection of real-life case studies and solutions used in projects that are currently deployed and in operation.

Solutions:



Healthcare

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



Retail

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



Consumer

We demonstrate how connected devices improve everyday life.



Drones

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

Exhibition area



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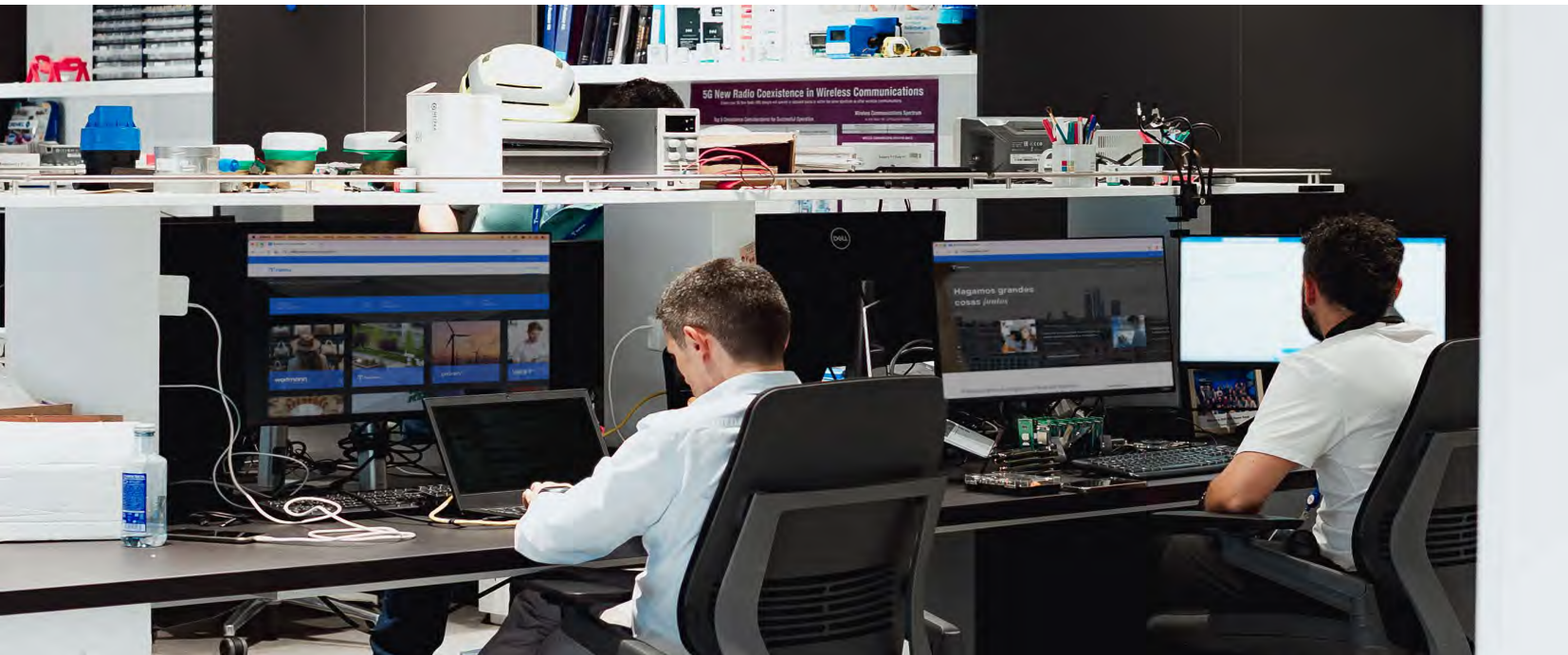
Green Tech

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



Industry

We offer solutions that modernise processes and ensure reliable connectivity.



Security by design

We test cybersecurity at every stage of the lifecycle

The laboratory enables us to test devices, communications and platforms against real-world threats, whilst complying with security regulations and standards.

Kite Platform: Managed and secure IoT connectivity

Real-time visibility and control from a single platform

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



- Traffic, usage, and network status monitoring
- Operational intelligence and event analytics
- Remote management of IoT devices
- Integrated security across the network and devices

Benefits for your business

Accelerate and implement innovation with technical confidence

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



**Reduced costs
and development time**



**Minimisation
of technical risks**



Faster time-to-market



**Improved quality
of the final product**



**Greater confidence in
technical decision-making**



**Access to Telefónica Tech's
device validation
programme**

Applications by sector

Bespoke solutions for the real challenges facing each industry:



Industry



Healthcare



Energy and utilities



Retail



Mobility



Smart cities



Banking



Sport



Why should you choose us?

- More than 30 experts working on IoT, cybersecurity, cloud, AI and big data solutions
- More than 700 strategic partners with whom we collaborate
- More than 700 m² of technology space for testing, demonstration and validation
- More than 150 validated IoT solutions per year across various sectors
- More than 75 million connected IoT devices
- More than 10 private and simulated network environments
- More than 30,000 hours of penetration testing and red teaming
- More than 16,000 critical devices monitored for cybersecurity
- More than 100 million security events monitored
- More than 28 petabytes of Storage as- a-Service
- More than 16 petabytes of Backup as- a-Service