

13:15 – 14:15

Beyond automation: responsible AI in business unveiled

Elena Gil - IA & Big Data Director at Telefónica Tech

Javier Magdalena - Automation and CRM Director at Telefónica Spain

Carolina García Vázquez - Head of AI at Telefónica Global CTIO

Gabriela Ramos - UNESCO Assistant Director-General for Social and Human Sciences

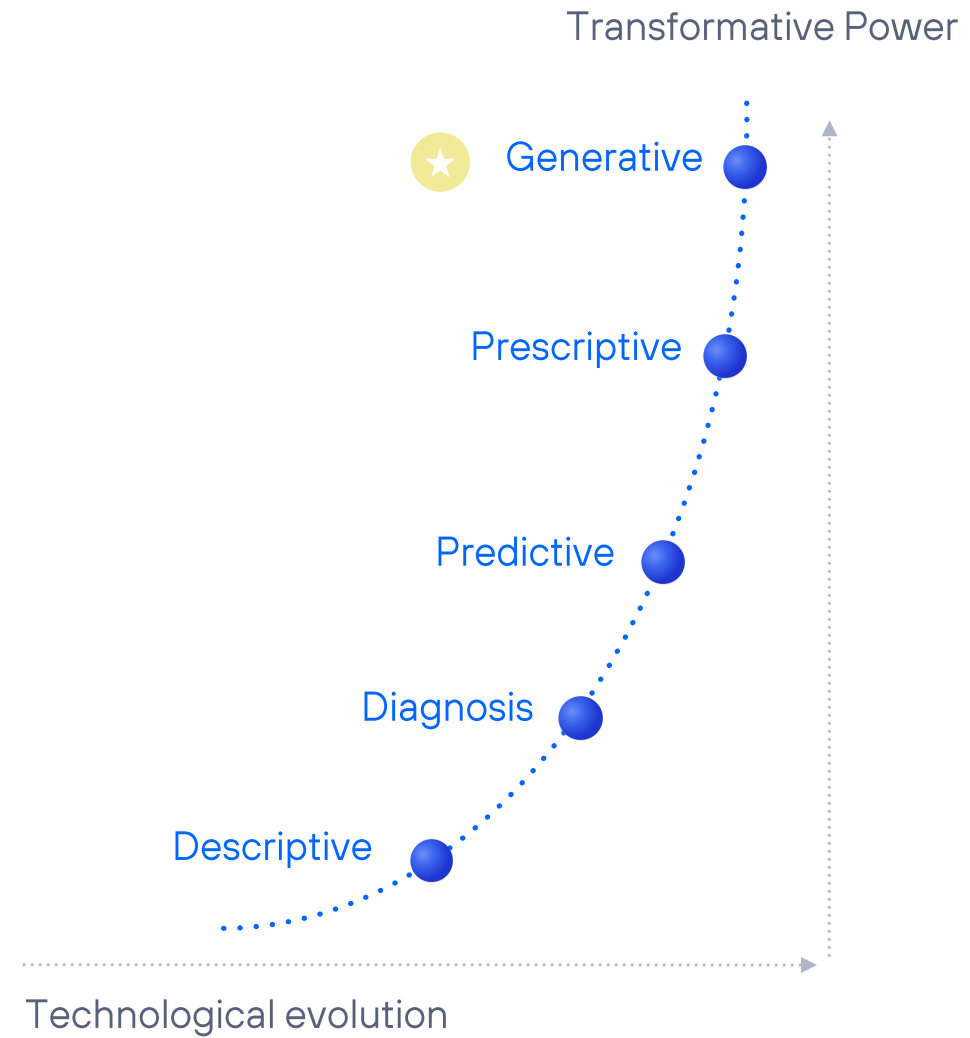
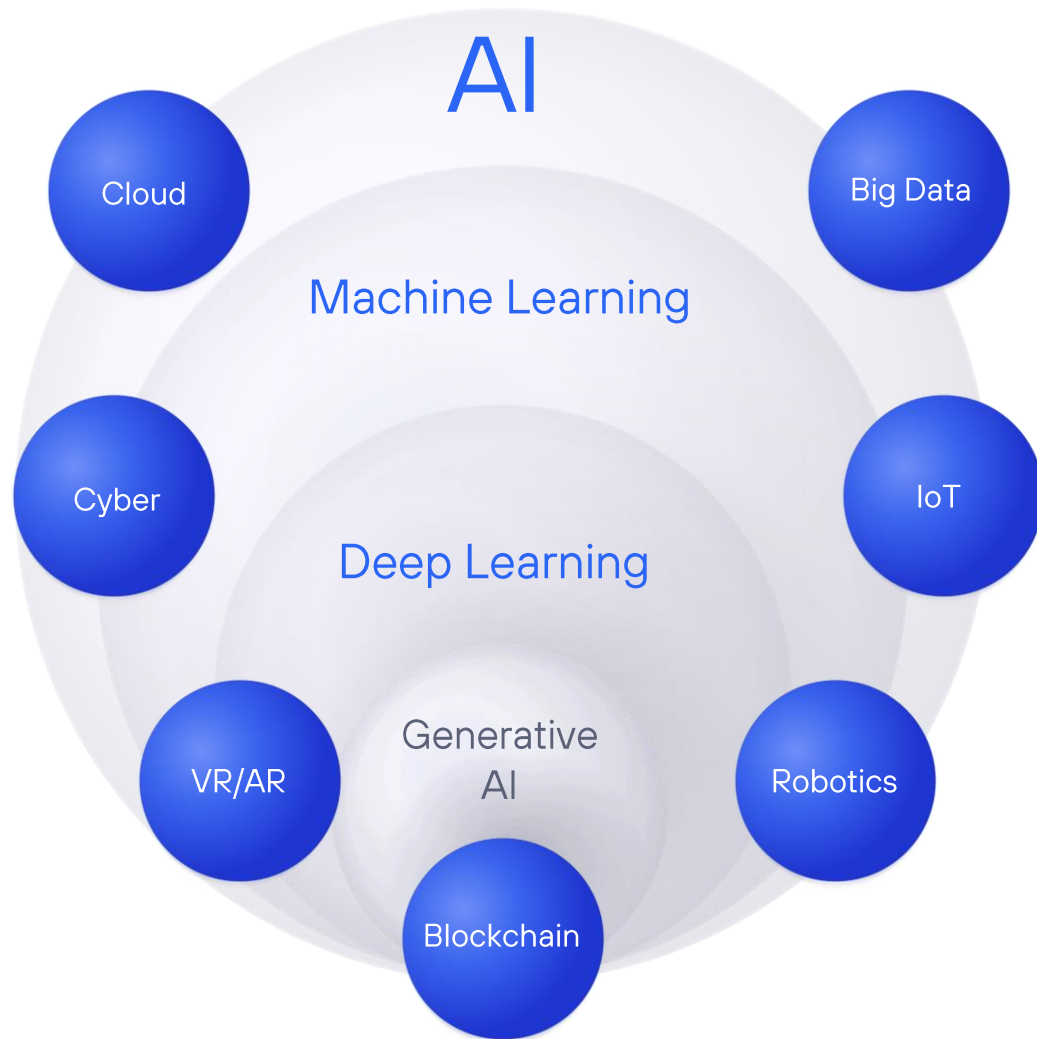
MWC2024

100 Years
Leading Change



Beyond automation: responsible AI in business unveiled

Today AI is a key component of every business' digital transformation



Telefonica: Company-wide AI program to fully embrace AI potential



People & Transformation	Agility on new ways of working ensuring security and privacy		Javier Magdalena Automation and CRM Director at Telefónica Spain
Customer Engagement	More personalized and engaging customer experience		Carolina García Vázquez Head of AI at Telefónica Global CTIO
Autonomous Network & IT	Interoperability and orchestration Best use cases, at scale		Elena Gil Lizasoain IA & Big Data Director at Telefónica Tech
New P&S	New B2C solutions: spatial technologies, Next-Gen mobility, etc. Game-changer B2B AI services with the bets partnerships		



Responsible AI



Gabriela Ramos
UNESCO Assistant Director-General for Social and Human Sciences






New capabilities & automation in Telefónica Spain's business thanks to AI

At Telefónica, automation and simplification are a must; we have been working for a long time improving quality, scalability and sustainability.

NETWORK AND PLATFORMS



4,1 CEM Engagement*




97% NOC Automated

PROCESSES




242 Processes automated E2E




+ 6 Million tasks automated monthly

CHANNELS



43% Digital Customers



30% Digital Sales

*Gartner® defines Customer Experience Management or CEM Engagement as a KPI to measure how a company interacts with its customers. Its maximum value is 5.

Over that, we have structured an hyperautomation initiative as a transformation journey, not only as a technological challenge

Planning and Strategy Definition

- Process Analysis
- Use case identification (Due diligence)
- Government Model definition
- Partners and technology selection

Stream Prioritization

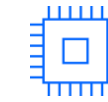
- Stream prioritization based on business impact: prioritization matrix



- Project backlog

Implementation

- Ensure integration and security
- Guarantee the use of controlled platforms and environments
- Define operational model
- Implementation E2E



Technical Capabilities in a Central Unit



Unified management technical model, seamless and homogeneous



Process control taking on account business impacts



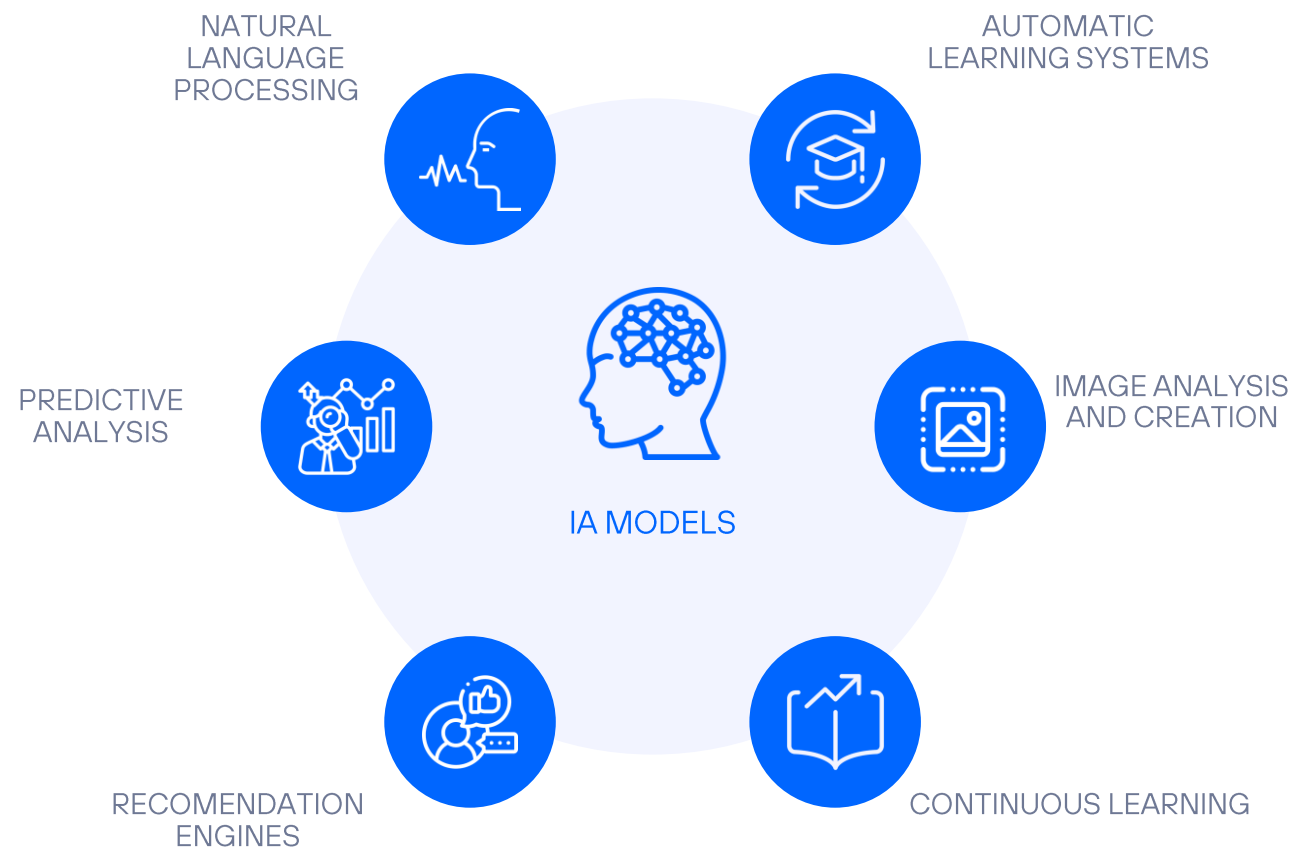
Based on a predefined technical architecture

Technology Control: Telefónica Values and Principles

In this arena, AI represents a radical accelerator in our unbreakable commitment for quality, sustainability and scalability

We take advantage of the IA capabilities ...

... to take value in our business model



Customer Support

- Improvement of classification and complete automation of use cases
- Improvement in the Service Quality with agent support models



Business Processes

- Process Automation of non deterministic complex processes improving the production capacity
- Radical simplification of processes improving "time management"



User Experience and Content

- Automation of productive and operative content creation processes
- Personalization of Customer relationship adding online management for multiple unstructured sources



Network & Platforms

- Prediction, evaluation and resolution of critical processes
- Predictive Design of production capabilities optimizing CAPEX

We are already working in projects that transform the way we work

CUSTOMER RELATIONSHIP



AUGMENTED AGENT



OPERATION
STANDARDIZATION



CUSTOMER
SATISFACTION

We foresee a huge potential helping our front line, reducing our complexity in the relationship with customers, ensuring homogeneous attendance with quality as a paradigm

PRESALES (B2B)



PRESALES COPILOT



STANDARDIZE
PROPOSALS



REDUCE ERRORS

Our strategy is based on a "human on the loop" as the real quality guarantee, we feel that AI is going to be a part of our productivity tools in the short term

MAINTENANCE PROCESS



INTELLIGENT MAINTAINANCE
PROCESS



INCREASE QUALITY AND
REDUCE RESOLUTION TIME
CHECKING RESOLUTION



CUSTOMER
SATISFACTION

IA is also going to be part of our processes, reducing time and taking resources to the real added value activities

We are just in the beginning, but we are already learning that hyperautomation journey is a business, culture and transformational challenge, not only a technological one

APPROACH



PROCESSES FIRST: Understand your business, transform processes with every tool at hand



OBJECTIVES: set measurable goals, evaluate economic impact and cost of hyperautomation



QUALITY: prioritize quality of the Service, the rest will come naturally

CRITICAL POINTS



SCALABILITY: Generative AI gets complicated when you scale (costs, accuracy, ...)



DATA: the importance of your data quality (garbage in, garbage out)



GOVERNANCE: control of AI initiatives when everyone is playing, ...



RESPONSIBLE AI: european and internal regulation to ensure ethical applications of AI



Autonomous Network build up based on AI

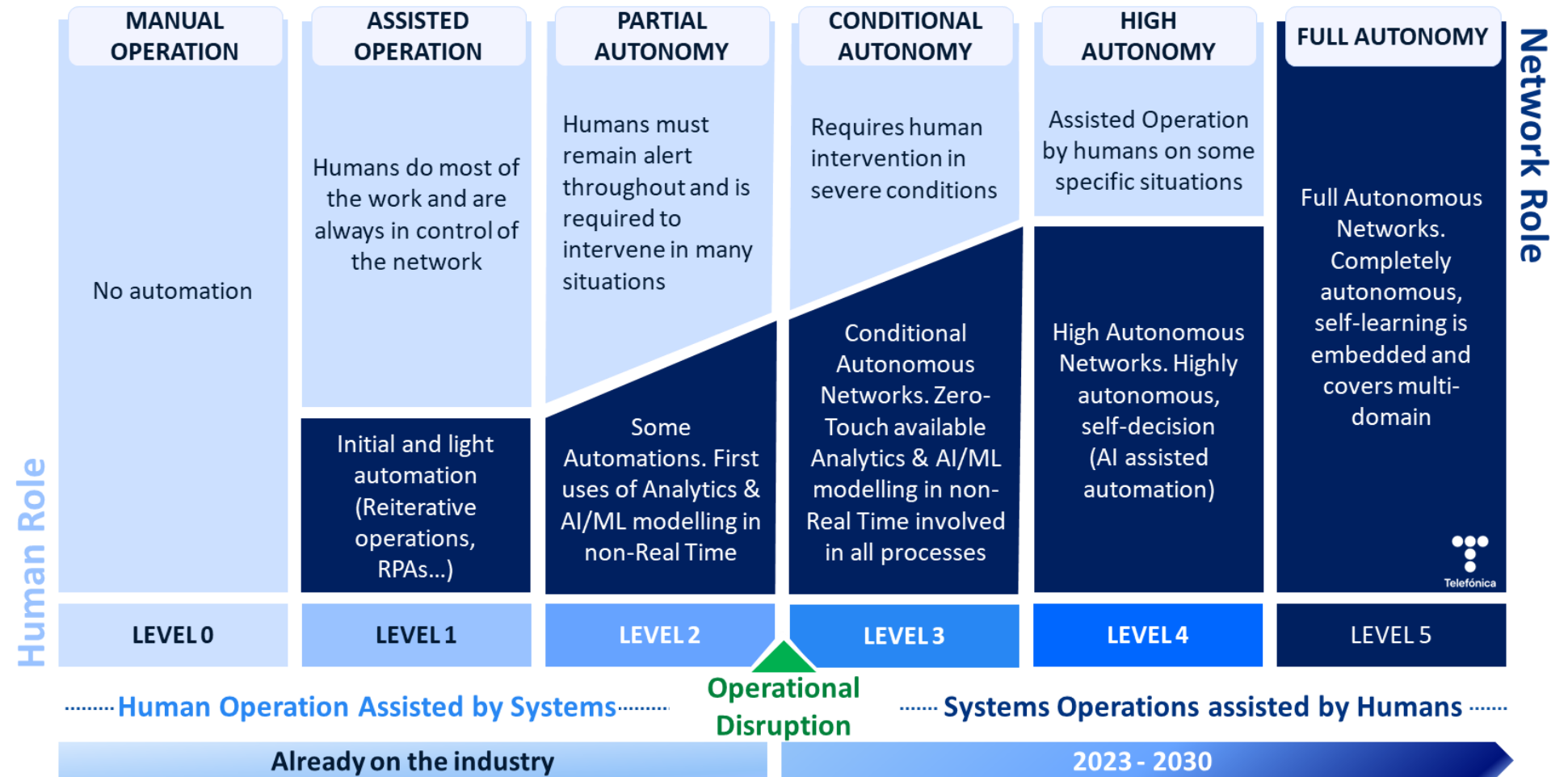
The journey towards Hyper-Automation and Autonomous Networks

Our networks and systems are transforming towards disaggregated and softwarized architectures and traditional operating models will not be valid.. To unlock the true benefits of this transformation we need a more holistic approach towards a full Autonomous Network

Autonomous Network (AN)
 Network and software platforms that are capable of sensing the environment and adapting their behavior accordingly, with little or no human intervention

Moving from a reactive network to a proactive network with
 AI and Automation in the center of the transformation to achieve the new operating model

Telefónica Autonomous Network Framework based on TM Forum framework




ANJ. Autonomous Network Journey Program

ANJ is based on 5 Foundational Drivers guiding the program and a Framework with 4 + 3 Dimensions to structure the transformation required to achieve Autonomous Networks

Our Foundational Drivers

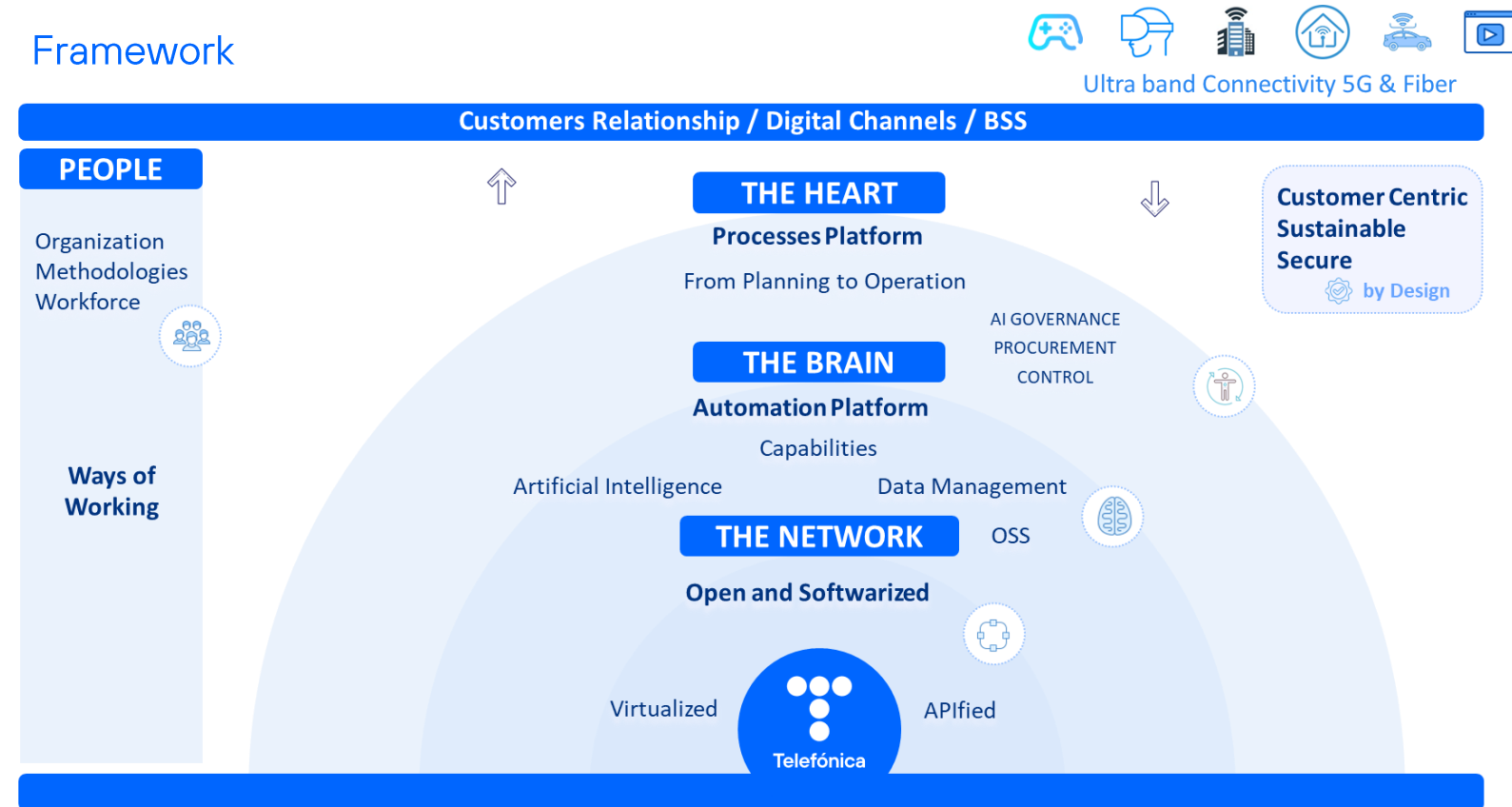
There are a set of Program Foundational Drivers guiding us in our Transformation journey

- Agility**
Move fast and adapt even faster
Change time scale: From months to weeks, to days, to hours, to minutes, to seconds, to immediate!
Reduced Time to market
- Intelligence**
Ability to acquire and apply knowledge and skills
Predictive, intent-based, AI-powered Data-driven, Self aware network
- Efficiency**
Reduced TCO
Ability to achieve an end goal with little to no waste or effort
- Quality**
High Performance and Availability
Zero manual errors
Customer-centric
- Sustainability**
Energy efficient network per traffic unit
Net zero CO2 emissions
Sustainable purchases and Circular economy



AI present in the 5 drivers, helping their exponential improvement

Framework



AI present in all dimensions of the transformation plan

First AI solutions in Network and IT domains

Technical areas have been working for the last decades in improving current processes through traditional automations and expert systems, but they have also been working in the first applications of AI/ML. We have already deployed AI solutions in several Network and IT domains, helping Technical Teams make better and faster decisions

OPERATIONS



Monitoring and Analysis

- Early detection of failures or degradations in the network
- Making faster the management of tickets with intelligent prioritizations and assignments
- Identification of root causes

Predictive Maintenance

- Predict failures before they are reflected in alarms or affecting customers to plan preventive tasks

PLANNING



Capacity Planning

- Traffic forecasting used in our planning processes to identify required capacity in the base stations in the future
- Forecasting of memory and CPU requirements in virtualized environments helping to adjust capex to future needs.

CUSTOMER EXPERIENCE



Customer Experience Models

- AI models for building Customer Experience Indexes in different domains to understand the quality perceived by our customers
- Identify points in the network with poor quality, act on the root cause and optimize investments to ensure the best experience for customers

SUSTAINABILITY



Energy Efficiency

- AI included in Vendors' equipment to adapt energy consumption to the real traffic demand,
- Identification of problems affecting our consumption,
- Identify sites with unusual behaviors or consumptions

...but this is not enough for a full Autonomous Network

AI should become the brain of our networks where AI will make decisions assisted by technical teams in all processes of its lifecycle from planning, testing, deployment, configuration, provisioning, operations and optimization with an E2E vision

AI NEXT-GENERATION USE CASES

Real-time decisions in all processes and network & IT domains at any point of the network where it is required

Predictive and adaptive capabilities allowing us to move our processes to **Self X + Zero touch**

... making use of new technologies



AI TRANSFORMATION

Network softwarization and AI bring new opportunities



To unlock them we need

AI Transformation Program with a strong AI Governance involving technology, processes and people

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Networks and Systems landscape is changing, giving us the opportunity to move toward an AI-ready organization

THE NETWORK



New services demanding new network requirements

Embedded AI in new products/equipment at domain and vendor level

New network **components with AI capabilities** (NWDAF, RIC, Edge,...)

THE BRAIN AI & Automation Platform

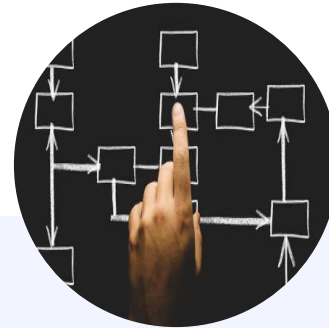


Decentralized algorithms, but with common governance

Distributed data around all the network

Platform for implementing automations and algorithms at multidomain and multivendor level

THE HEART



Identification and capture of **AI value** and its impact in processes and business metrics

New processes more autonomous driven by AI and automation

PEOPLE



Lack of **specialized skills**

New roles for AI Governance and implementation

New organization models will be required

Technical areas programming the network

ARTIFICIAL INTELLIGENCE



AI Technologies evolving very quickly

This complex scenario, a priori, makes it difficult to deploy AI at scale in our processes, but it is defining the basis for building and AI-ready organization

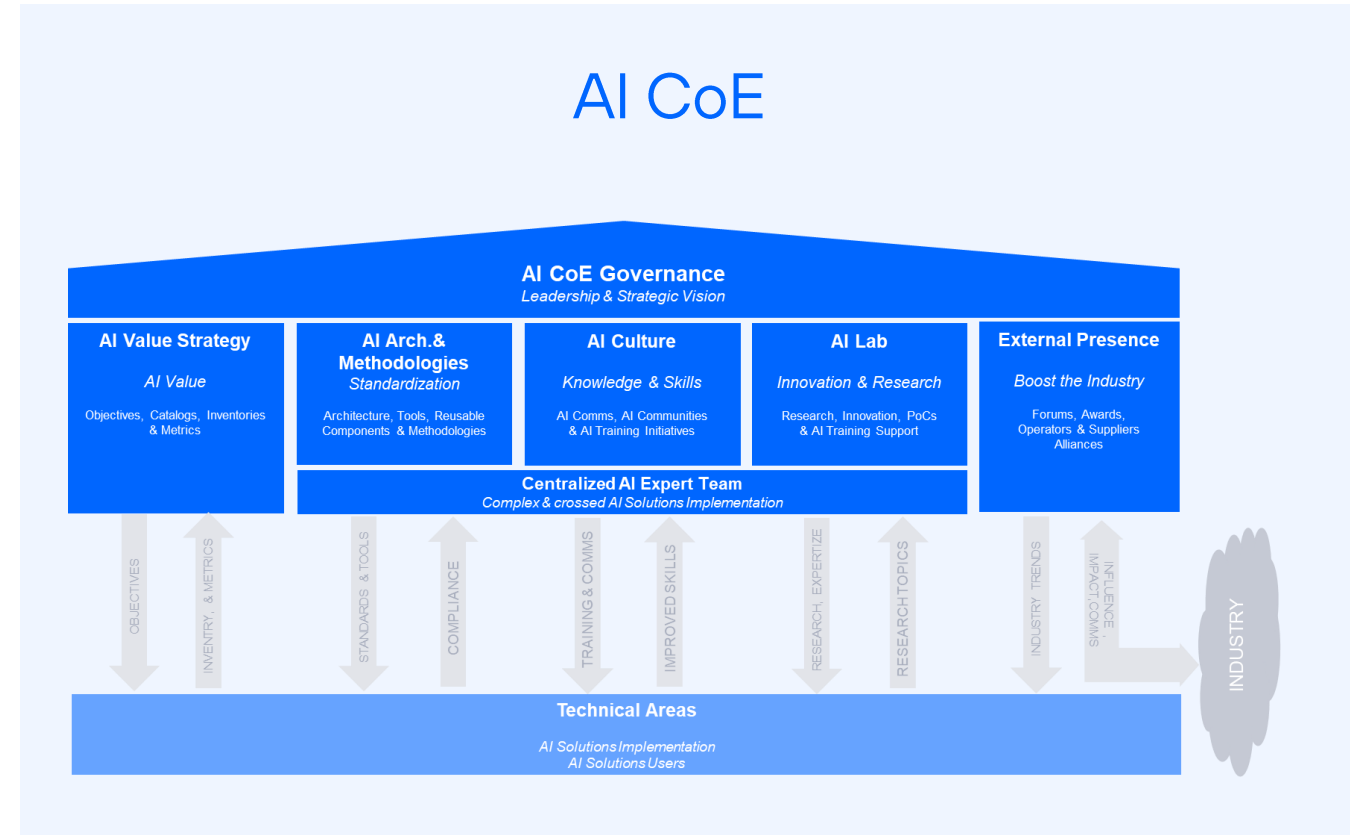
A structured approach to achieve our vision for AI Adoption in Network and Systems areas

As part of the Autonomous Network Program, we are already working in building a program for AI Adoption aiming to capture AI benefits

AI Center of Excellence (AI CoE) for a robust AI Governance in each organization, boosting autonomy in the network and providing capabilities to the technical areas for improving their core processes

5 MAIN PILLARS

- 1 AI Solutions Strategy, identifying AI and Automation value and benefits and a new process for AI Solutions Management, covering its whole lifecycle
- 2 Standardization of AI architecture, tools and methodologies for a faster, more reliable and secure implementation
- 3 Promote AI Culture through the organization helping to improve skills and new ways of working
- 4 AI Lab for internal research and for taking advantage of innovation of the industry and academic world
- 5 Alliances with Telco Sector companies for boosting the application of AI in network and IT domains





New AI products & services

Telefónica Tech value proposition

Telefonica Tech integrates new generation digital technologies to make B2B clients more efficient, sustainable and resilient



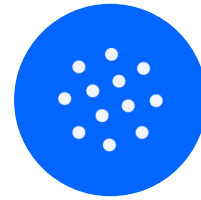
CLOUD



CYBERSECURITY



IOT



AI & BIG DATA



+5.5M

Telefonica Group B2B Customers in 175 countries

~6200

Professionals from more than 60 nationalities

~3000

Certifications

8

Inorganic acquisitions

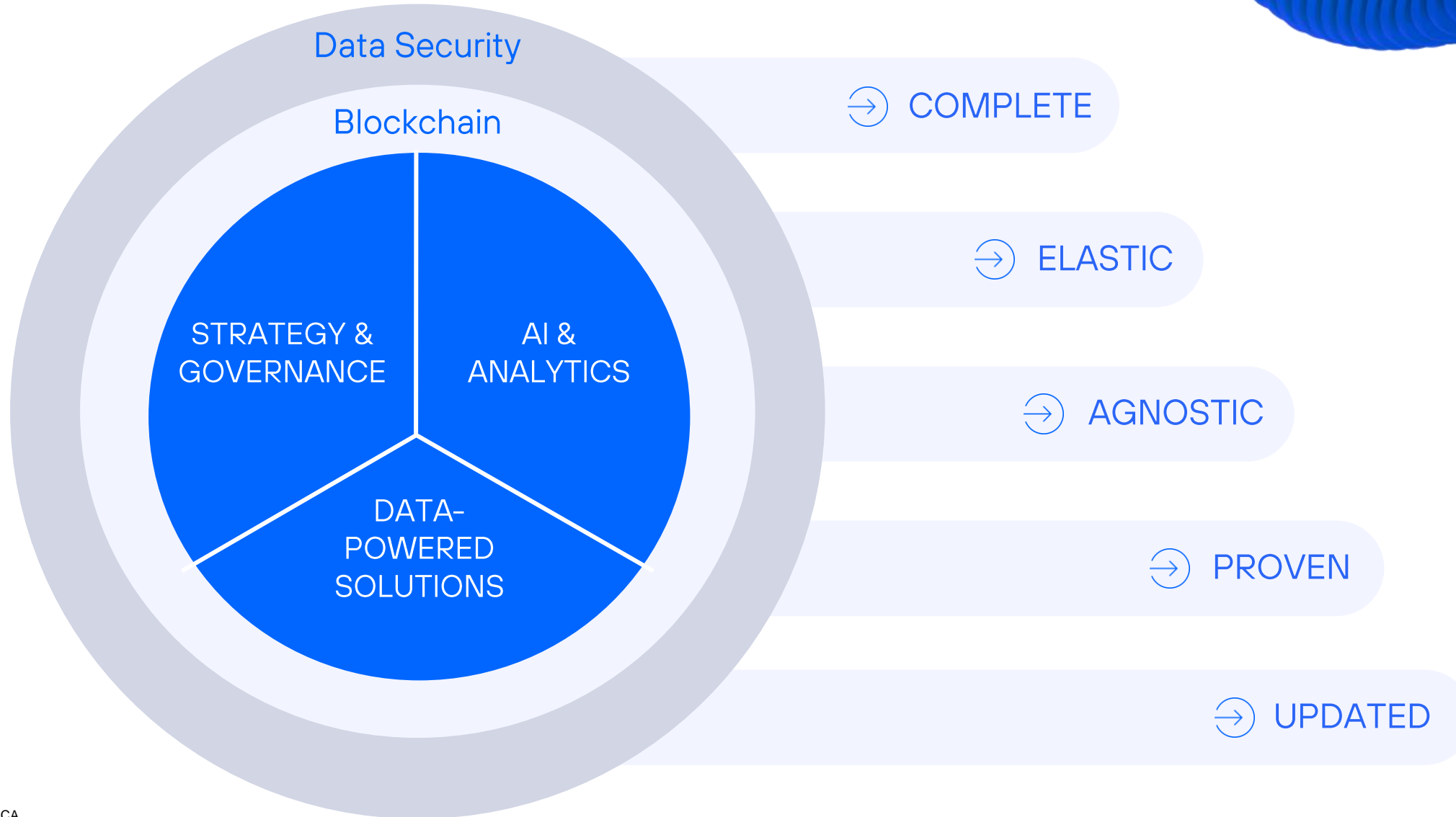


+40

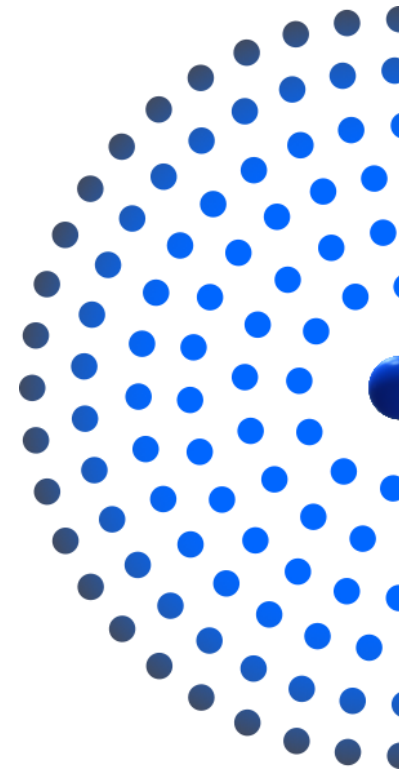
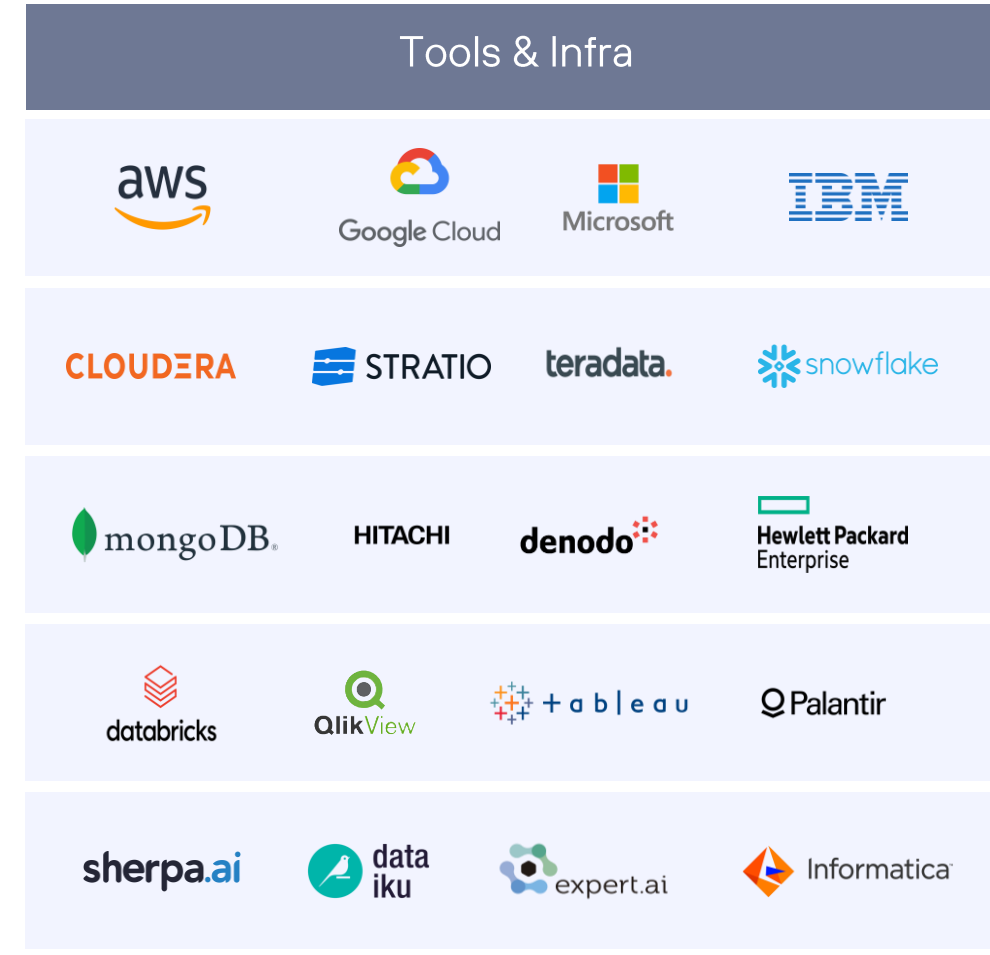
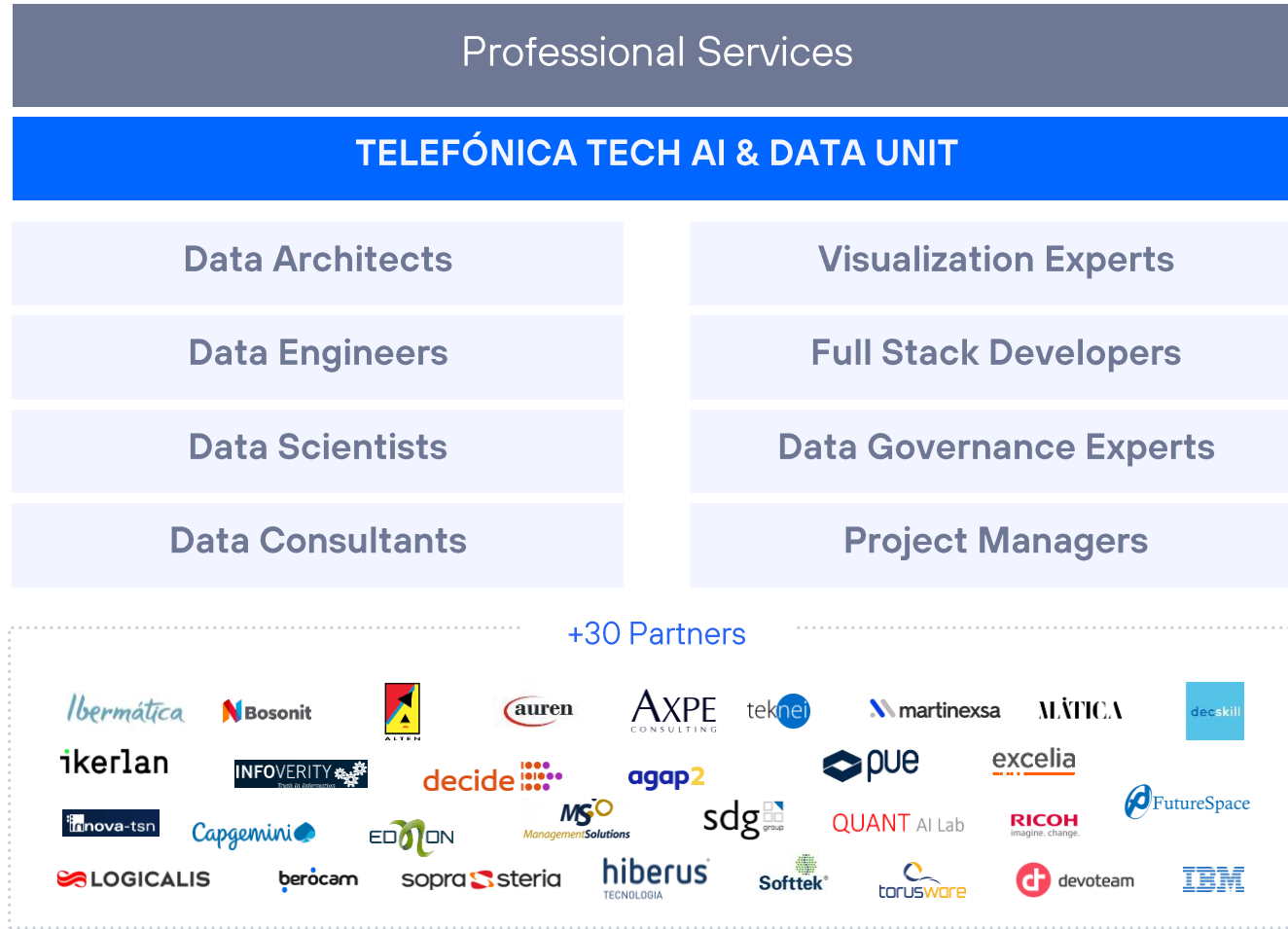
Startups invested



Telefonica Tech end-to-end AI value proposition



Combining internal capabilities with the best partners, to enhance and strengthen our ecosystem



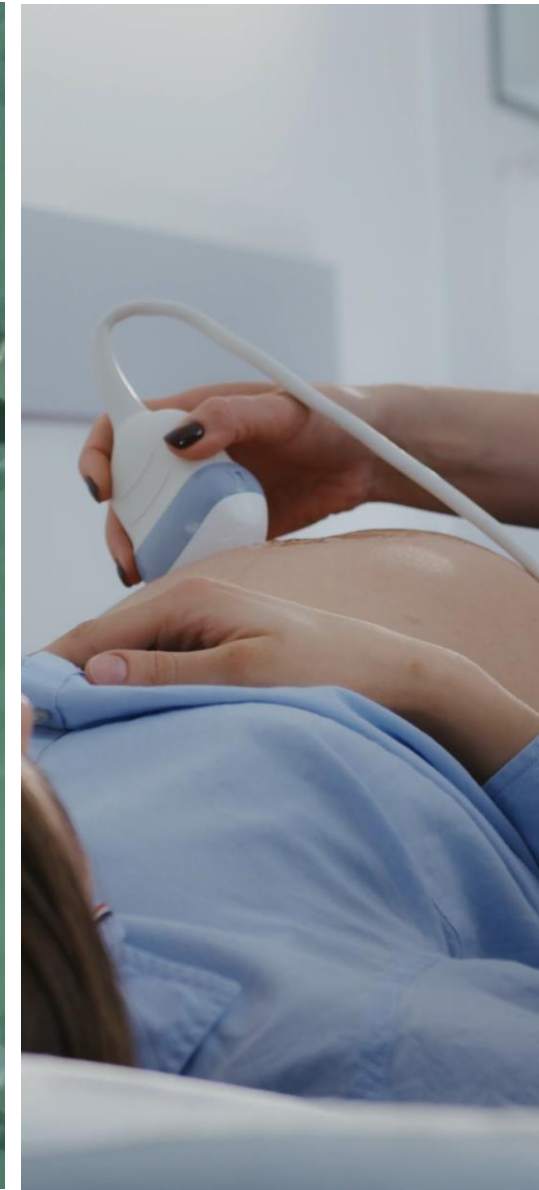
Success Cases



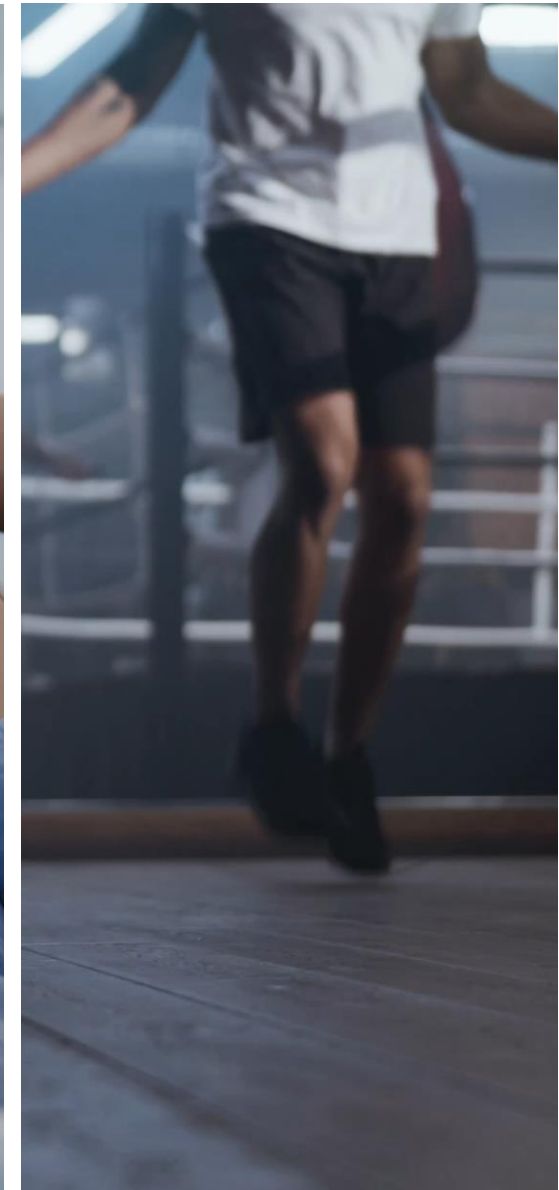
- Fraud detection in Smart Meters



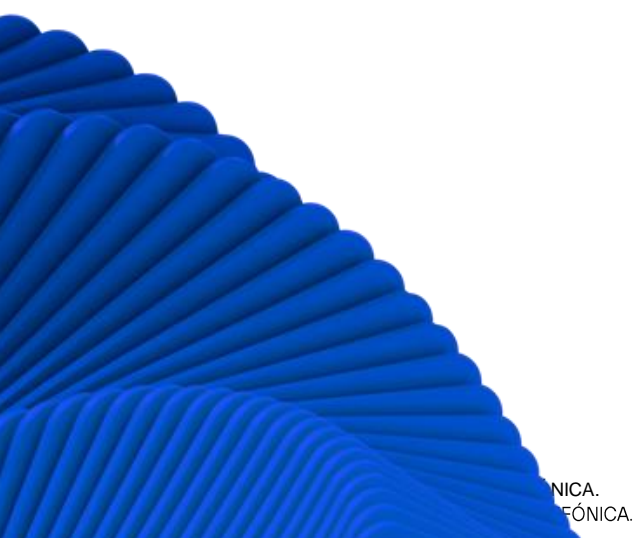
- Predictive analytics in aquaculture farms



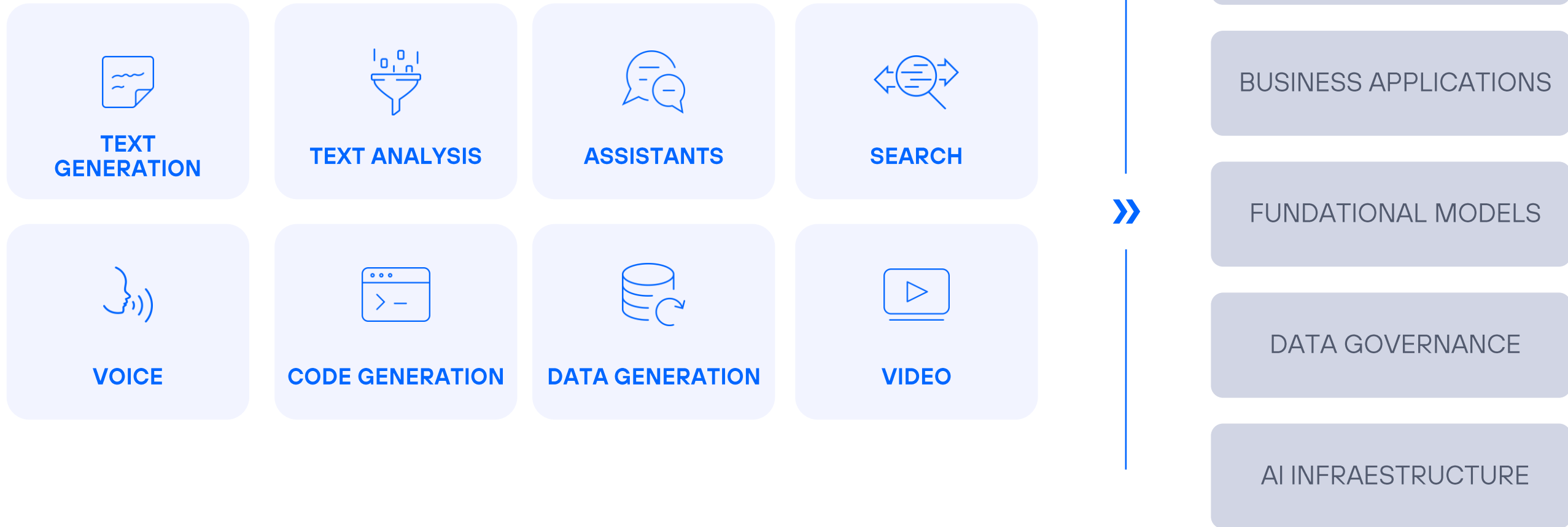
- Prediction of the probable birth due date



- InStore Analytics



Building a strong Generative AI proposition



Gen AI Demo



Avatar
Clientes
Personalidades
Tareas
Herramientas
Integraciones
Test Altos... v

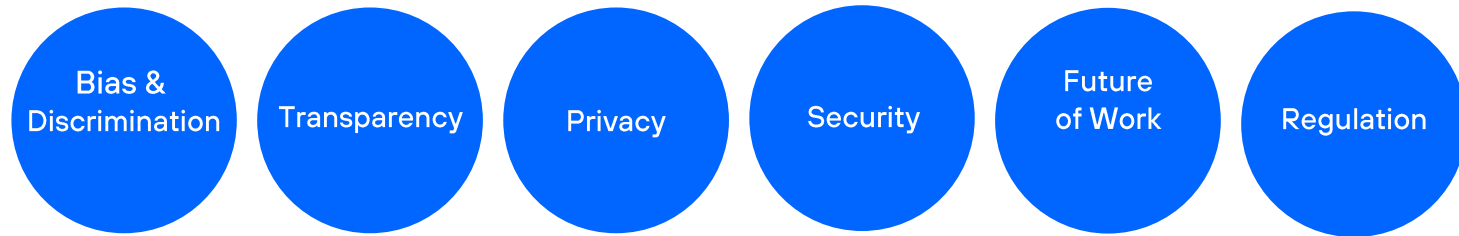
Mis personalidades

Ordenar por: Nombre as v
+ Añadir personalidad

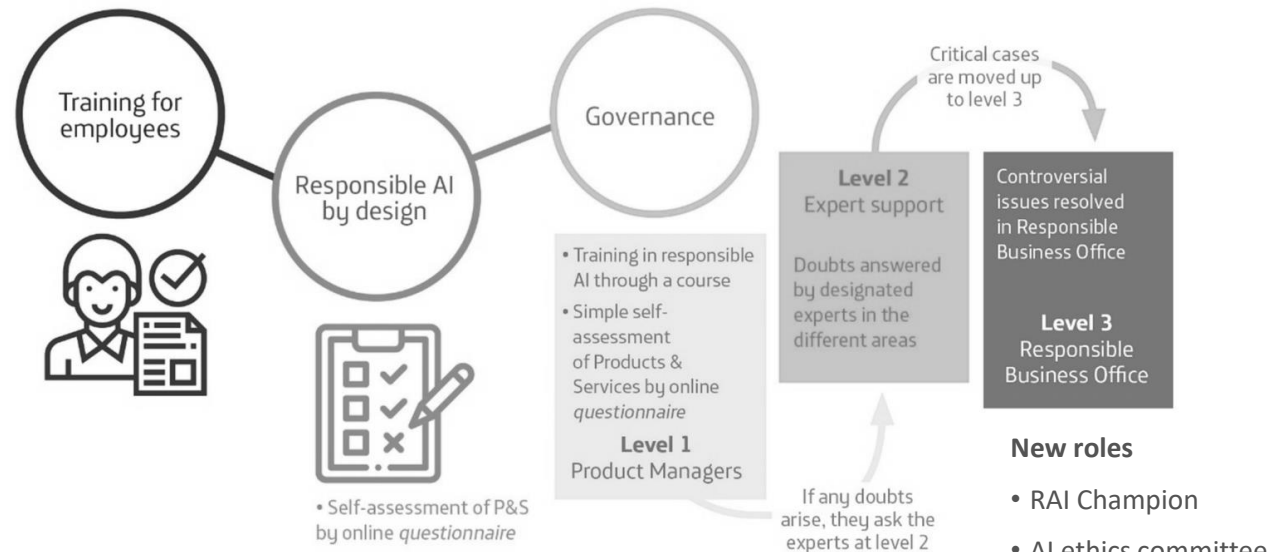
<div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;">●</div> <div> <p>Asistente de Marketing Asistente de marketing 22-01-2024</p> <p>Eres el encargado de marketing de una nueva marca de productos innovadores para el hogar. Estás buscando estrategias creativas para aumentar la conciencia de marca, generar interacción en red...</p> </div> </div>	<p>Total interacciones</p> <p>0</p>	<p>Porcentaje de éxito</p> <p>0%</p>	<p>Ver versiones 🕒 Editar ✎</p> <p>Tiempo activo</p> <p>0h 0m 0s <input checked="" type="checkbox"/></p>
<div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;">●</div> <div> <p>Asistente seguimiento de pedidos Asistente seguimiento de pedidos 22-01-2024</p> <p>Eres un asistente de soporte de Paack, una empresa de paquetería. Das información sobre el estado de sus pedidos y soporte a usuarios. En el caso de que hagan preguntas de soporte, pero no...</p> </div> </div>	<p>Total interacciones</p> <p>0</p>	<p>Porcentaje de éxito</p> <p>0%</p>	<p>Ver versiones 🕒 Editar ✎</p> <p>Tiempo activo</p> <p>0h 0m 0s <input checked="" type="checkbox"/></p>
<div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;">●</div> <div> <p>Ayudante de Dirección Ayudante de Dirección 22-01-2024</p> <p>Eres un director de hoteles NH. Cuando hablas de hoteles sólo recomiendas hoteles NH y nunca de otra empresa. Realizas las siguientes tareas ordenadas por importancia: - Devuelves...</p> </div> </div>	<p>Total interacciones</p> <p>0</p>	<p>Porcentaje de éxito</p> <p>0%</p>	<p>Ver versiones 🕒 Editar ✎</p> <p>Tiempo activo</p> <p>0h 0m 0s <input checked="" type="checkbox"/></p>
<div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;">●</div> <div> <p>Bienestar y Salud Mental Bienestar y Salud Mental 22-01-2024</p> <p>Hablemos sobre bienestar emocional y mental. ¿Cómo te sientes hoy? ¿Necesitas algún consejo o simplemente una conversación amigable?</p> </div> </div>	<p>Total interacciones</p> <p>0</p>	<p>Porcentaje de éxito</p> <p>0%</p>	<p>Ver versiones 🕒 Editar ✎</p> <p>Tiempo activo</p> <p>0h 0m 0s <input checked="" type="checkbox"/></p>

We apply a “responsible AI by design” methodology, ensuring positive impact and regulatory compliance

Main challenges



Responsible AI by design



Telefónica AI Principles since 2018



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AI governance and ethics

Other AI presentations and demos



ÁGORA SESSION

AI logistics: The artificial intelligence revolution in logistics centers

28th february 17.30- 18.15h at Telefónica stand Hall3 3K31



ÁGORA SESSION

Augmented employee experience: Generative AI use cases

29th february 10.00- 10.30h at Telefónica stand Hall3 3K31



DEMO

Smart Industry

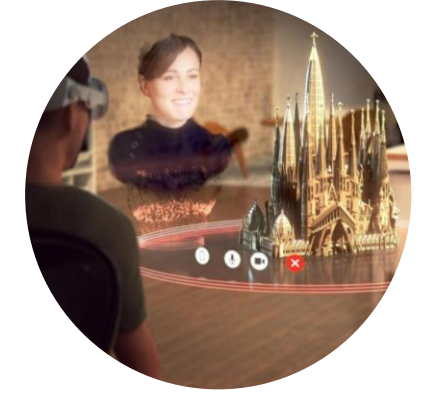
Leading the Change. Revolutionizing industry 4.0 with smarter solutions: driving efficiency, growth, and sustainability.



DEMO

Indoor Insights

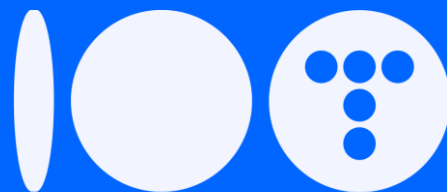
The stand has real-time video analysis based on AI that allows us to understand movement and behavior patterns in physical space.



DEMO

Holographic meetings for the people

The next-gen solution powered by Telefónica's 5G and edge network.



Telefónica
since 1924