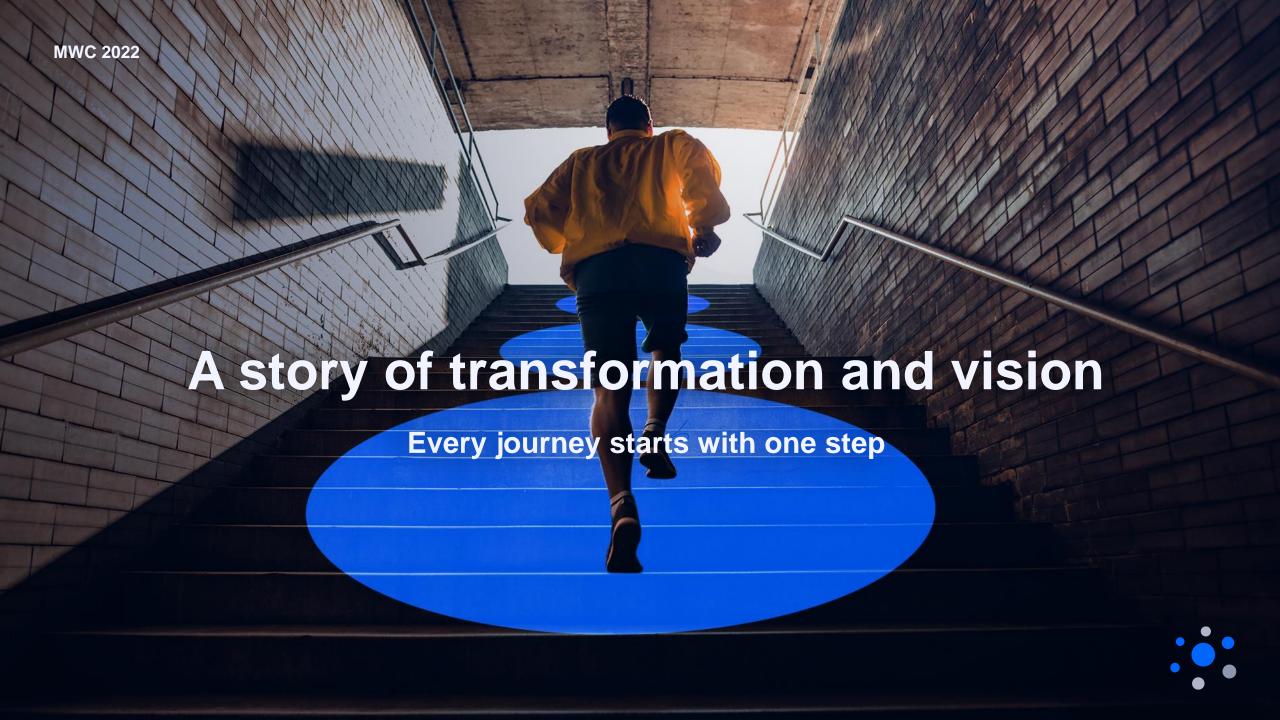
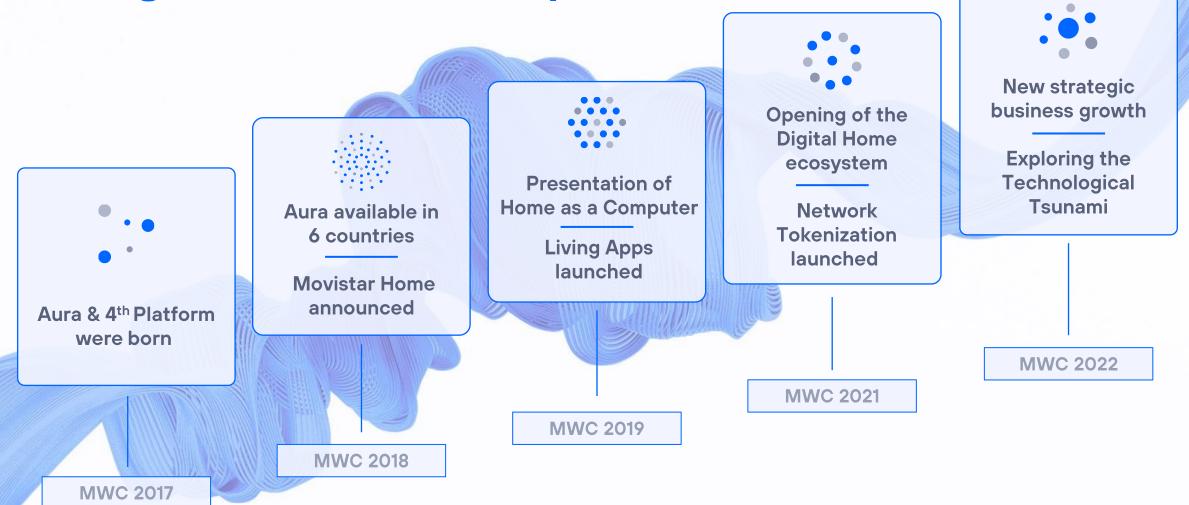


Telefónica KERNEL

A digital ecosystem of core capabilities

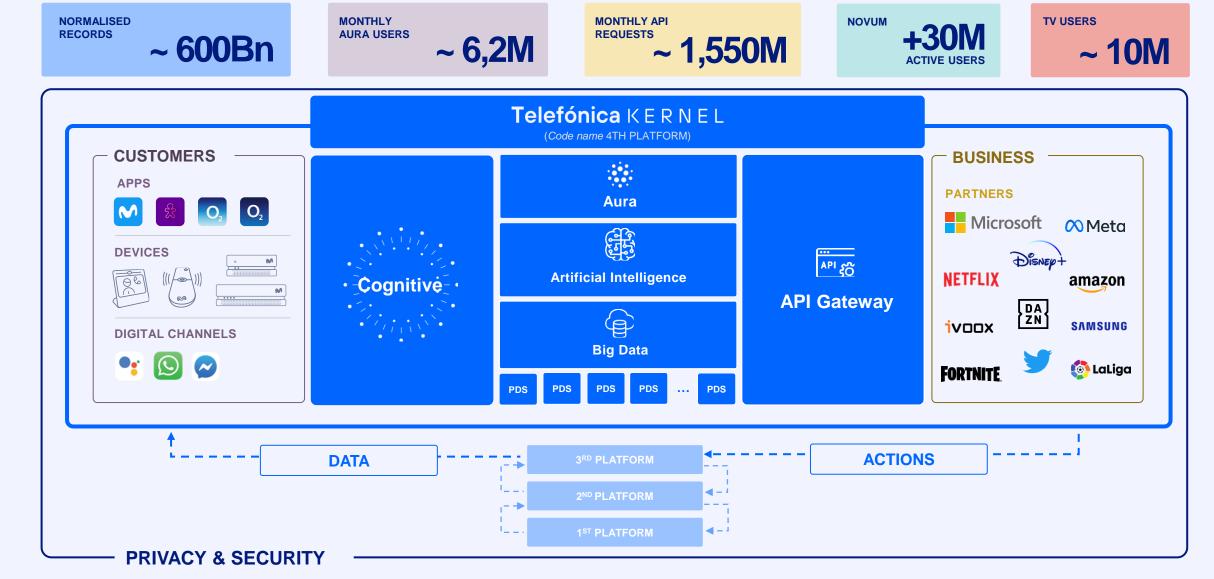


Our digital transformation path



Telefónica

Telefónica's technological ecosystem



Digital Core to expand Digital Services

A single mobile platform for all of the Telefónica **Group's main markets**



OVER

USERS YTD

ENGAGEMENT TOTAL SESSIONS

CUSTOMER RATING



ANDROID

APPLE / ANDROID

4.5 4.3

APPLE

ANDROID

IMPACT ON DIGITAL SALES MIX (2021)



29% 29% 33% 43%

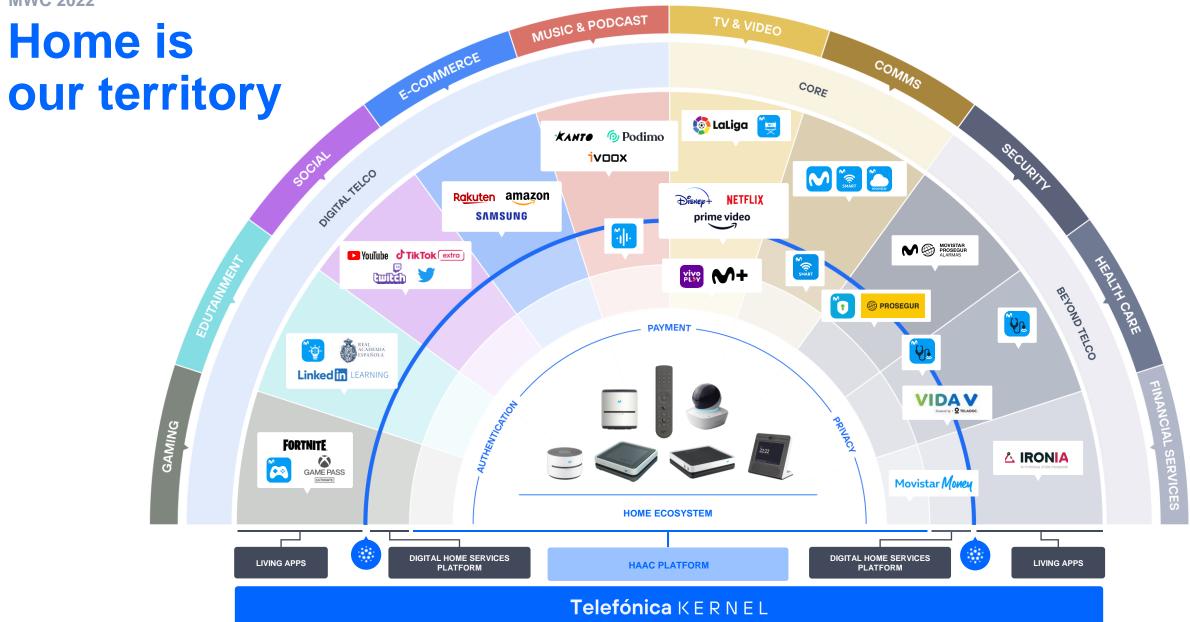








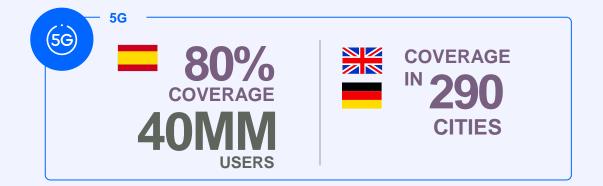
MWC 2022





Best-in-class connectivity

We offer the best fibre & 5G connectivity







Homes passed





Reinforcing connectivity control



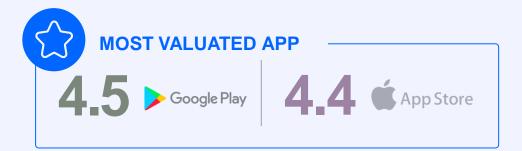








Unlimited cloud storage service

















A new landline experience

A new way to be closer to your loved ones

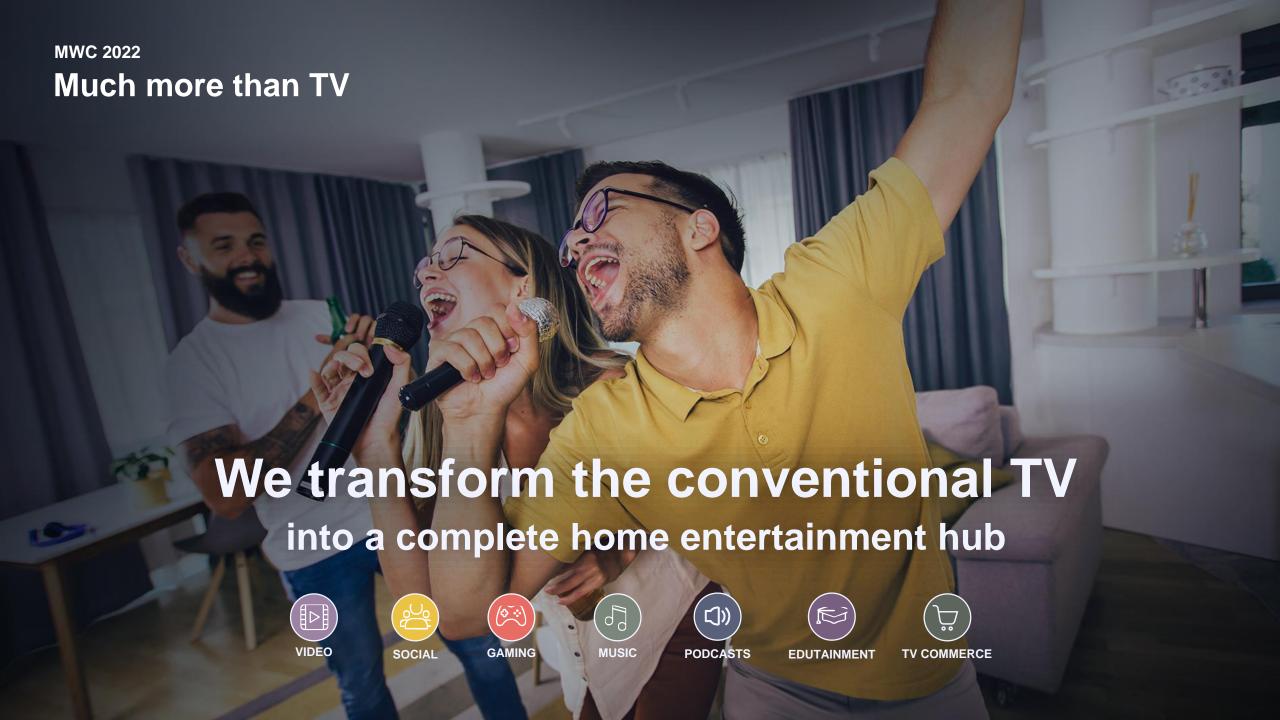


Partners:

Microsoft Teams







The centre of home entertainment



BEST PREMIUM CONTENT



















ENHANCED TV EXPERIENCE



AUGMENTED AND IMMERSIVE REALITY







Social Media on the big screen

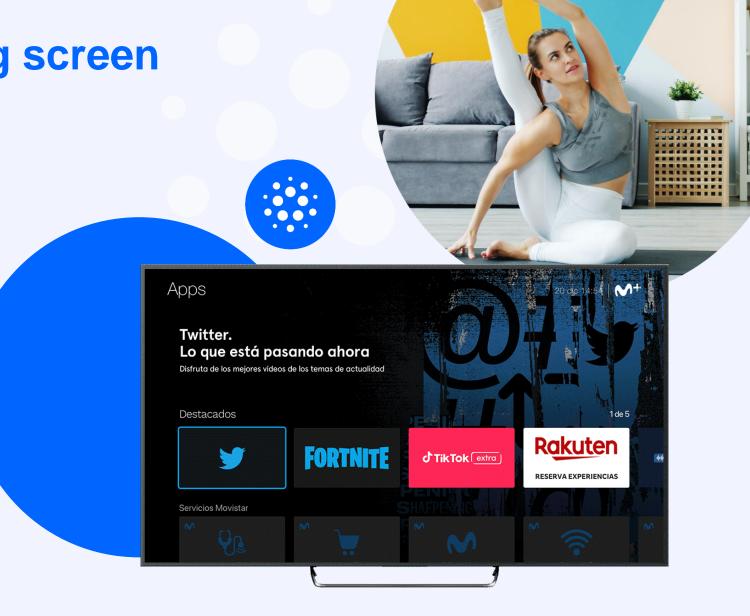














Gaming



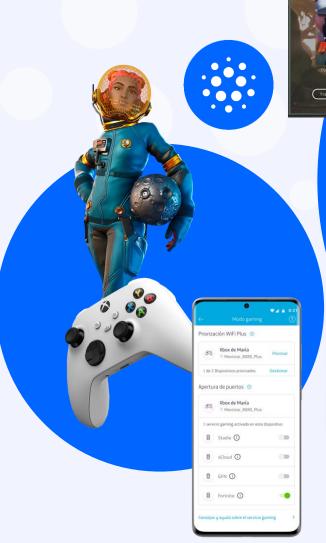


















Music

+50MM SONGS AND MEET & GREET ON THE MOBILE APP

MUSIC STATIONS AND RADIO ON MOVISTAR HOME



SING, DANCE OR WATCH LIVE CONCERTS WITH LIVING APPS ON TV





Podcasts and Videopodcasts

































Edutainment



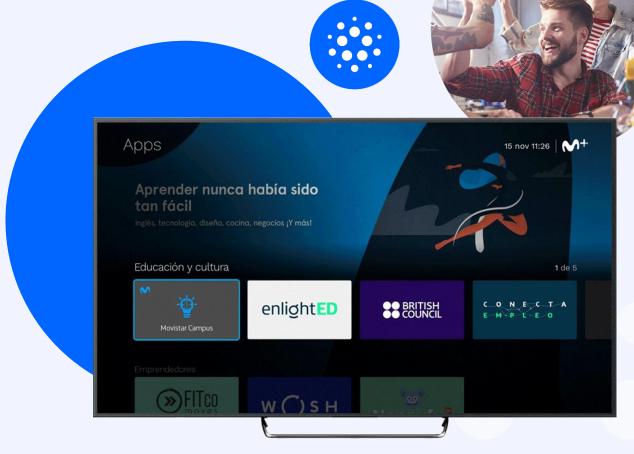
GREAT VARIETY OF EDUCATION AND ENTERTAINMENT CONTENT



LANGUAGES, COOKING, FINANCE, PHOTOGRAPHY OR TECHNOLOGY **MASTER CLASSES**

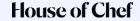


A NEW BUSINESS OPPORTUNITY FOR EDUTAINMENT CREATORS

















E-Learning with

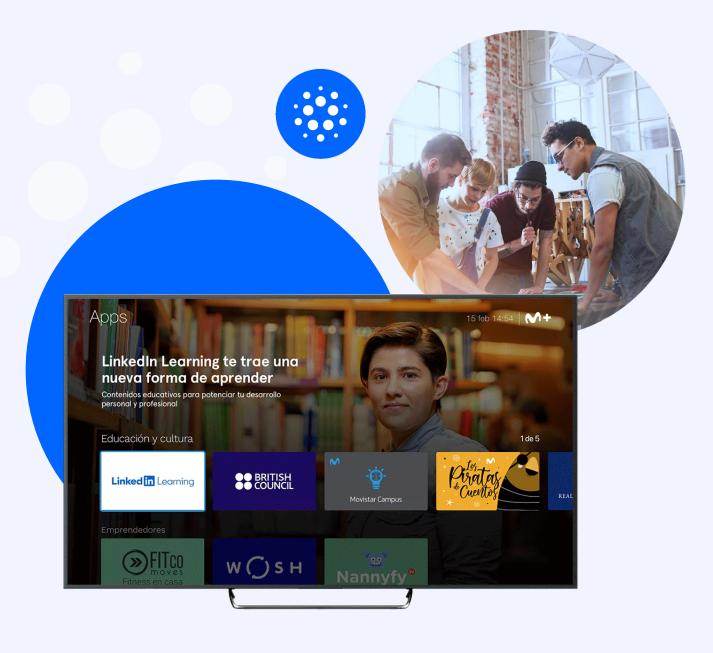
Linked in



PROFESSIONAL SKILLS: TIME MANAGEMENT, NEGOTIATION, ENTREPRENEURSHIP, WEB DEVELOPMENT OR CX

EXPERT-LED COURSES







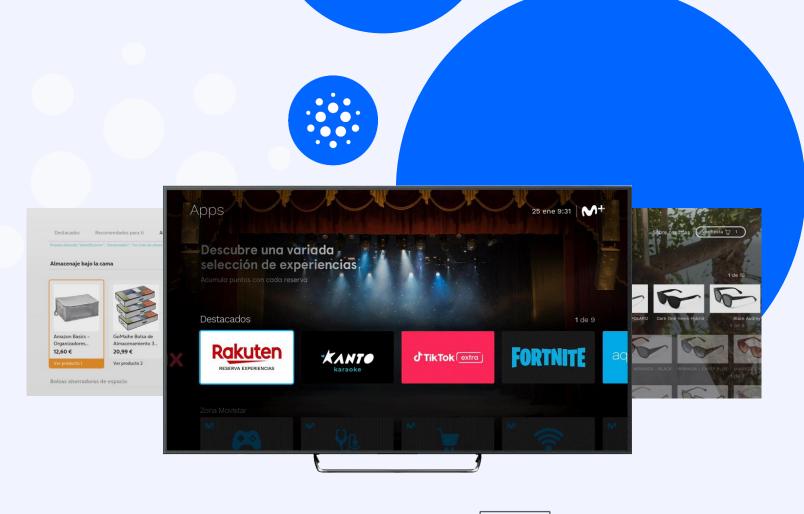
TV-Commerce



















HAWKERS







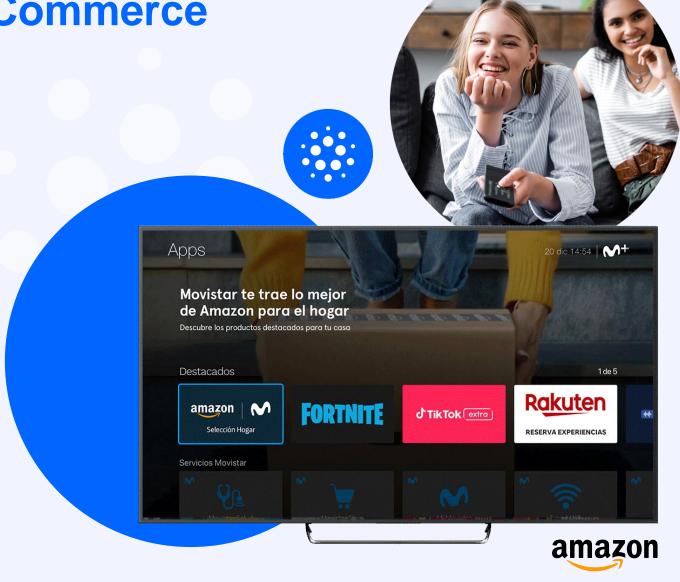




Innovative Amazon TV-Commerce

- SHOP TOP-RATED HOME PRODUCTS ON THE BIG SCREEN
- EXPRESS DELIVERY
- FROM THE COMFORT OF THE LIVING ROOM







Expand your Shopify e-Commerce to TV



COMPANIES CHOOSE WHICH PRODUCTS OF THEIR SHOPIFY CATALOGUE THEY WANT TO SELL ON TV

QUICK AND EASY













Microsoft & Telefónica widen strategic collaboration





Alberto Granados

President Microsoft Spain







Enriching the Digital Home with Microsoft











MICROSOFT MALICIOUS DATA FEED INTEGRATION **IN SMART WIFI APP**







MWC 2022

Technology Tsunami

METAVERSE

TERAFORMING

BRIAN-TO-VEHICLE INTERFACES

IVF GENETIC SCREENING

THINKABLES

TOUCH-SENSITIVE PROSTHETICS

PERSISTENT AUDIO SURVEILLANCE

DNA HARD DRIVES

PERSONAL DATA RECORD

GENETIC RECOGNITION

SMART THREAD

SUPERSONIC FLIGHT

BEHAVIORAL BIOMETRICS

DRONE-ENABLED INFRASTRUCTURE

ZERO CARBON NATURAL GAS

DRONE GENERATED RENEWABLES

SOLAR HIGHWAYS

NANOBOT NURSES

SELF ASSEMBLING ROBOTS

PERSONAL ROBOTS

VOICE PRINTS

FACE PRINTS

GENERATIVE ALGORITHMS FOR VOICE, SOUND AND VIDEO

SYNTHETIC VOICES

GIGWARE

5G NETWORKS

EDGE COMPUTING

DISTRIBUTED COMPUTING

SPATIAL COMPUTING

WEB 3.0

CRIPTOCURRENCY

TOKENS

SATELLITE FLEETS

NATURAL LANGUAGE GENERATION

CHARGING STATIONS

PREDICTIVE MACHINE VISION

MACHINE READING COMPREHENSION

GENERATIVE ADVERSARIAL NETWORKS

SYNTHETIC DATA SETS

ALGORITHMIC FACT CHECKING

MOLECULAR ROBOTS

SMART DUST

TATTOOABLES

PERSISTENT RECOGNITION

ROBOT BEES

TOKENOMICS

SOFT ROBOTICS

CREATIVE AI

COMPUTATIONAL PHARMACIES

NFTs

BLOCKCHAIN

CONNECTED CLOTHING

Fuente: Frank Diana

Metaverse: a digital universe to unite them all

At Telefónica we see the metaverse as an evolution of the Internet supported by a set of technologies that are transforming the digital economy such as augmented reality and virtual reality, the creation of new value assets such as NFTs, business models based on Web3 architectures and cryptocurrencies.



TELEFÓNICA HAS RELEVANT CAPABILITIES TO CONTRIBUTE TO THE MATERIALISATION OF METAVERSES:

5G STANDALONE NETWORKING SLICING

TELCO EDGE

SMART WIFI

SECURITY

CONTENTS

TOKENIZATION

DEVICES



Telefónica explores the metaverse

The new Chief Metaverse Officer will unify all Telefónica's

initiatives around the metaverse.









INVESTMENT IN WEB3

DIGITAL ASSETS





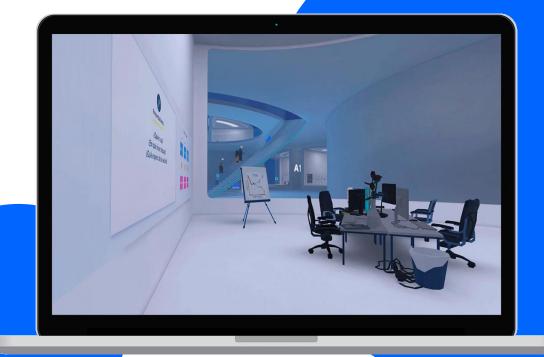
Telefónica Innovation & Talent Hub

A pioneering centre to provide a global response to the needs of the digital society

- VIRTUAL & PHYSICAL SPACES FOR INNOVATION
- INNOVATION INITIATIVES
- 9 FOSTERING TALENT









Boosting innovation in the Metaverse with Meta



MOVISTAR PLUS+ APP IN META QUEST



METAVERSE INNOVATION HUB



JOINT SUPPORT FOR STARTUPS ON CONNECTIVITY, METAVERSE TECHNOLOGIES AND USE CASES







Boosting innovation in the Metaverse with Meta



MOVISTAR PLUS+ APP IN META QUEST



METAVERSE INNOVATION HUB



JOINT SUPPORT FOR STARTUPS ON CONNECTIVITY, METAVERSE TECHNOLOGIES AND USE CASES









