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Cybersecurity in the Smart City

A safe, secure, connected and sustainable ecosystem

Smart Mobility

Safe

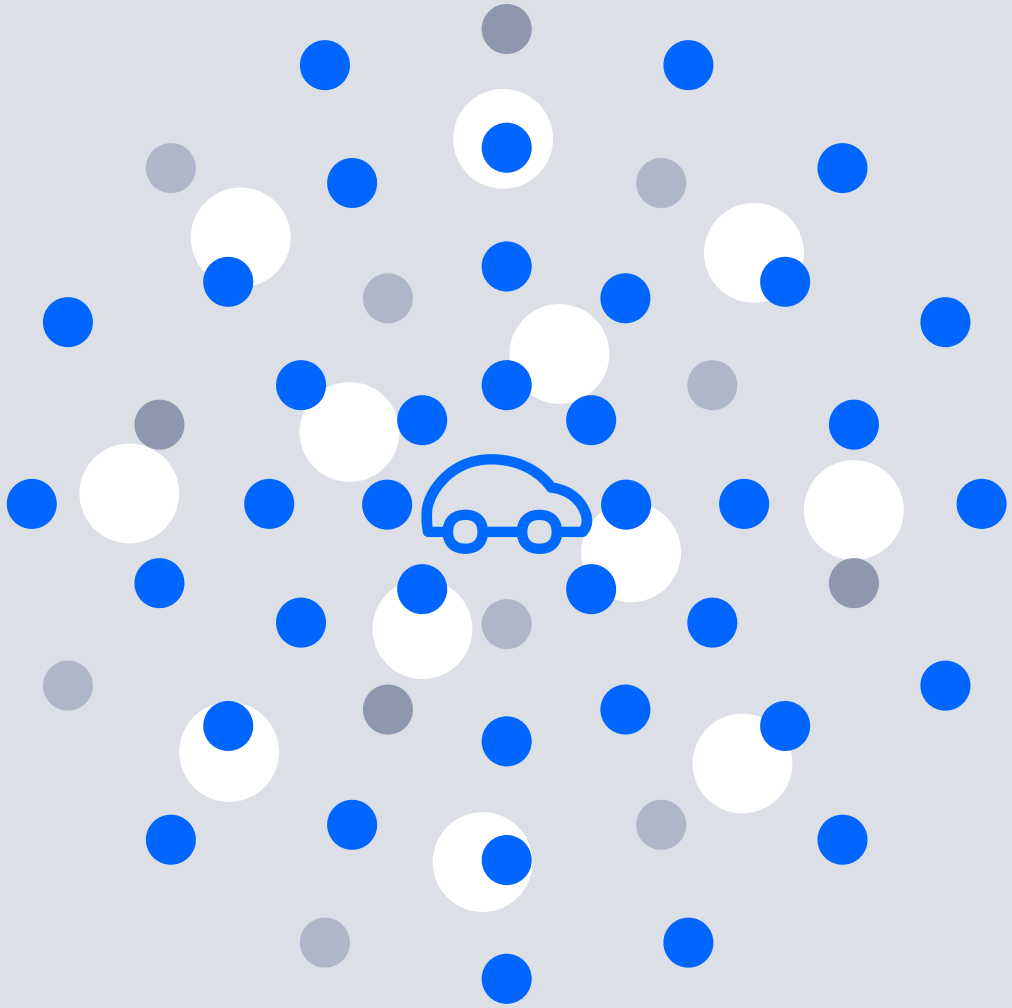
Efficient

Sustainable

Index

A bit of technology

Pillars for future mobility



TECHNOLOGICAL PILLARS FOR FUTURE MOBILITY

2024 +

5G NETWORK

Indirect and direct communications

C-V2X

When cars need to communicate

EDGE COMPUTING

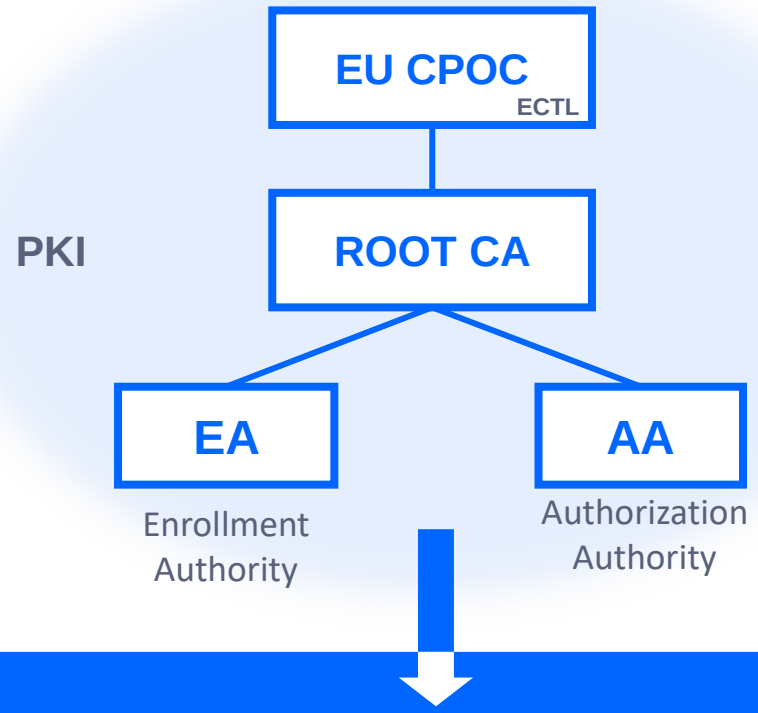
When speed of light is too slow

NETWORK SLICING

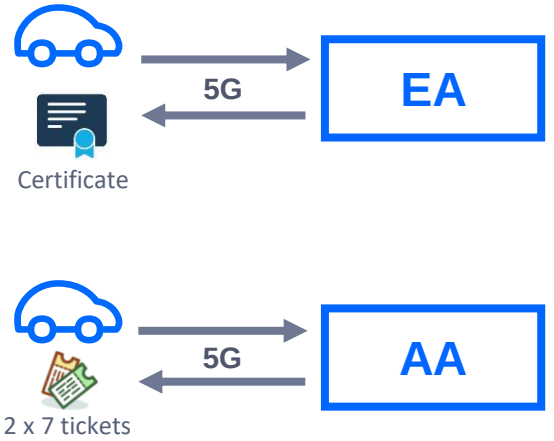
When each device has different demands

WITH CIBERSECURITY AS A KEY ENABLER

A HYPER-SECURE ECOSYSTEM



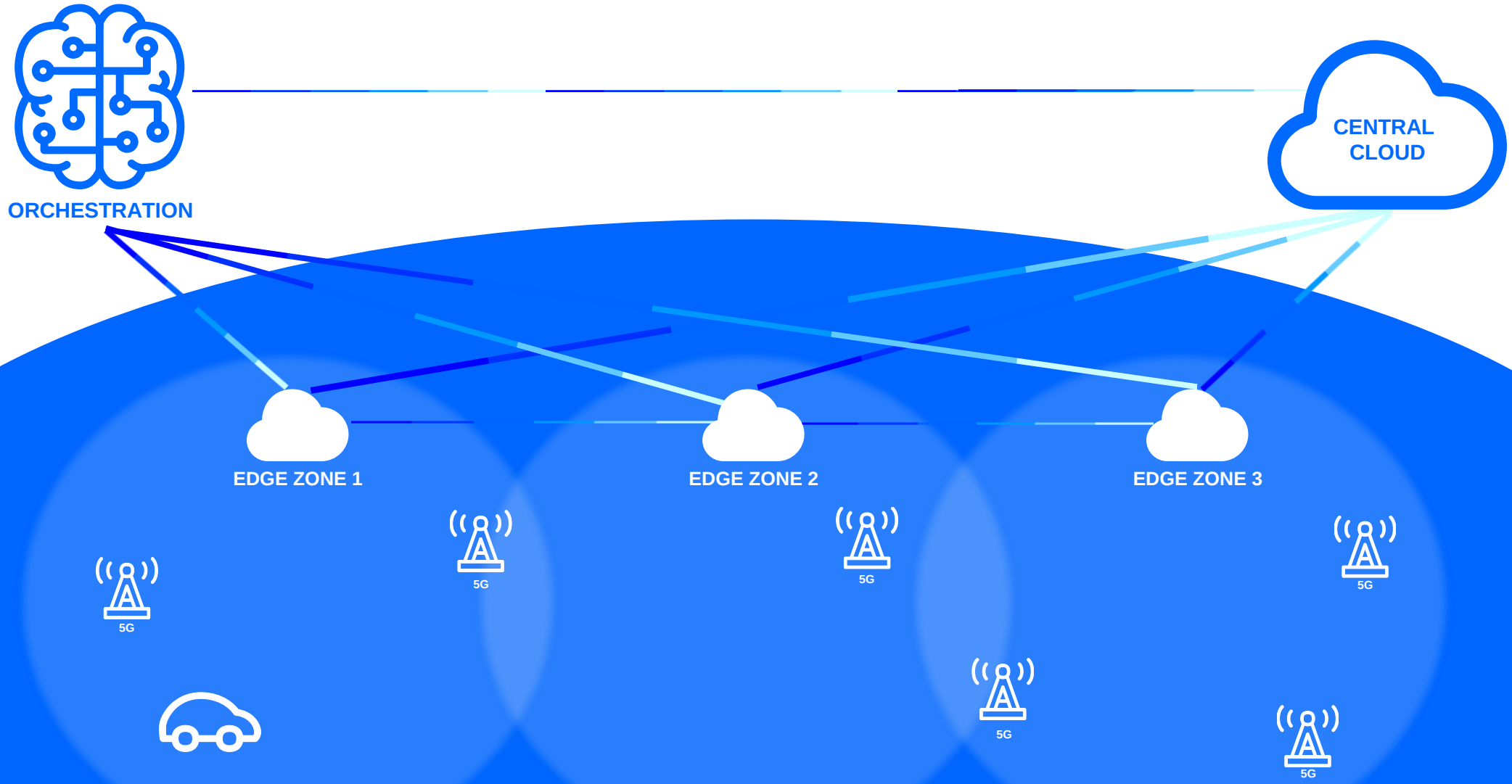
1. Car or road element is registered on PKI
2. Certificates are downloaded



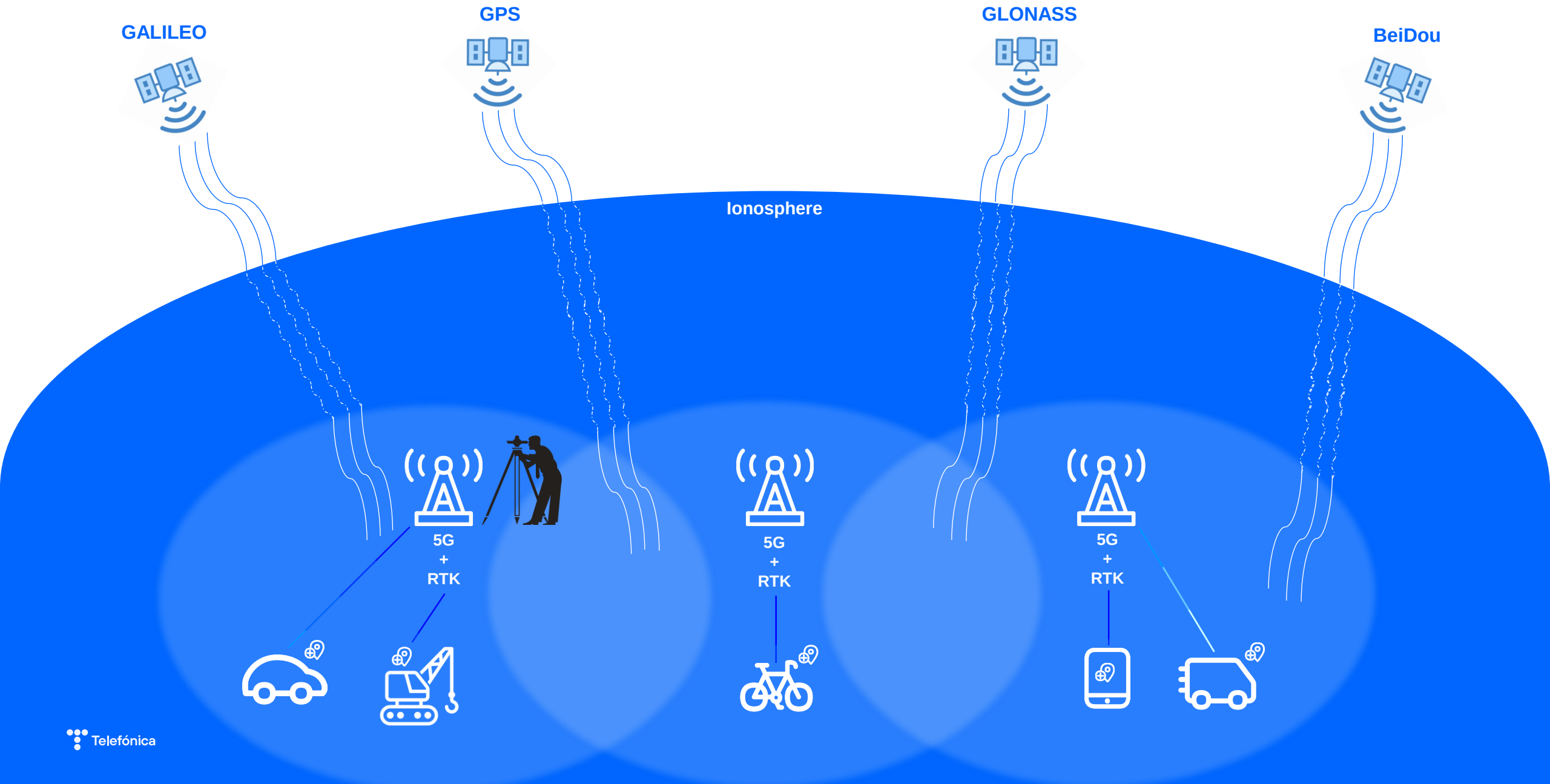
ANONIMIZATION

INTEGRITY

WITH A CLOUD THAT IS ALWAYS CLOSE



RELYING IN ULTRA-PRECISE POSITIONING



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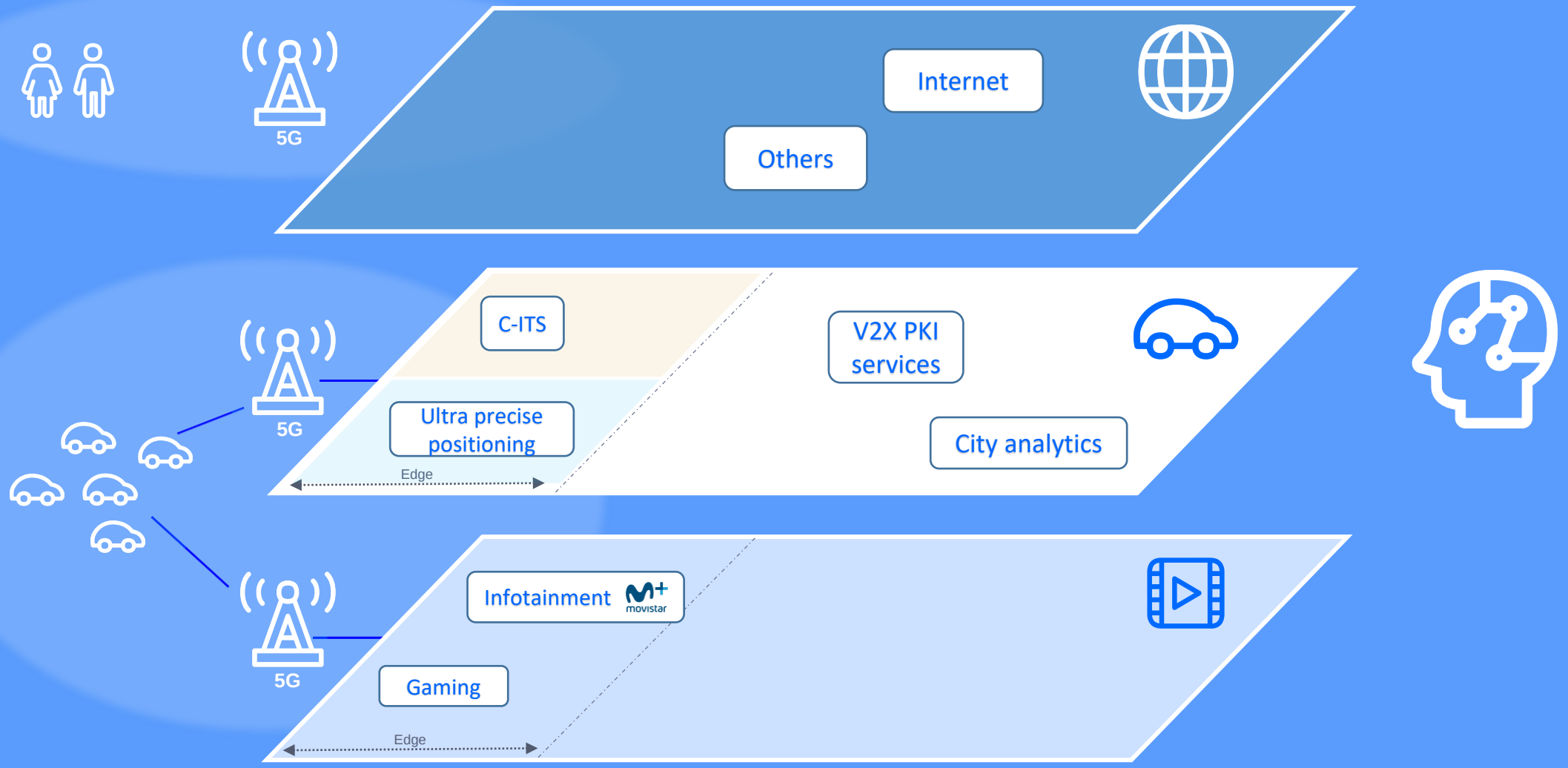
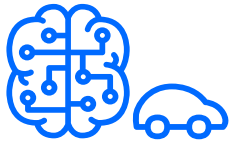
WITH NETWORK SLICING AS A KEY ENABLER



APPLICATIONS AND SERVICES ECOSYSTEM

V2X



AUTONOMOUS CAR

ROAD HEALTH

REMOTE DRIVING

APP ONBOARDING

PRECISE POSITIONING

PKI

5G NETWORK

C-V2X

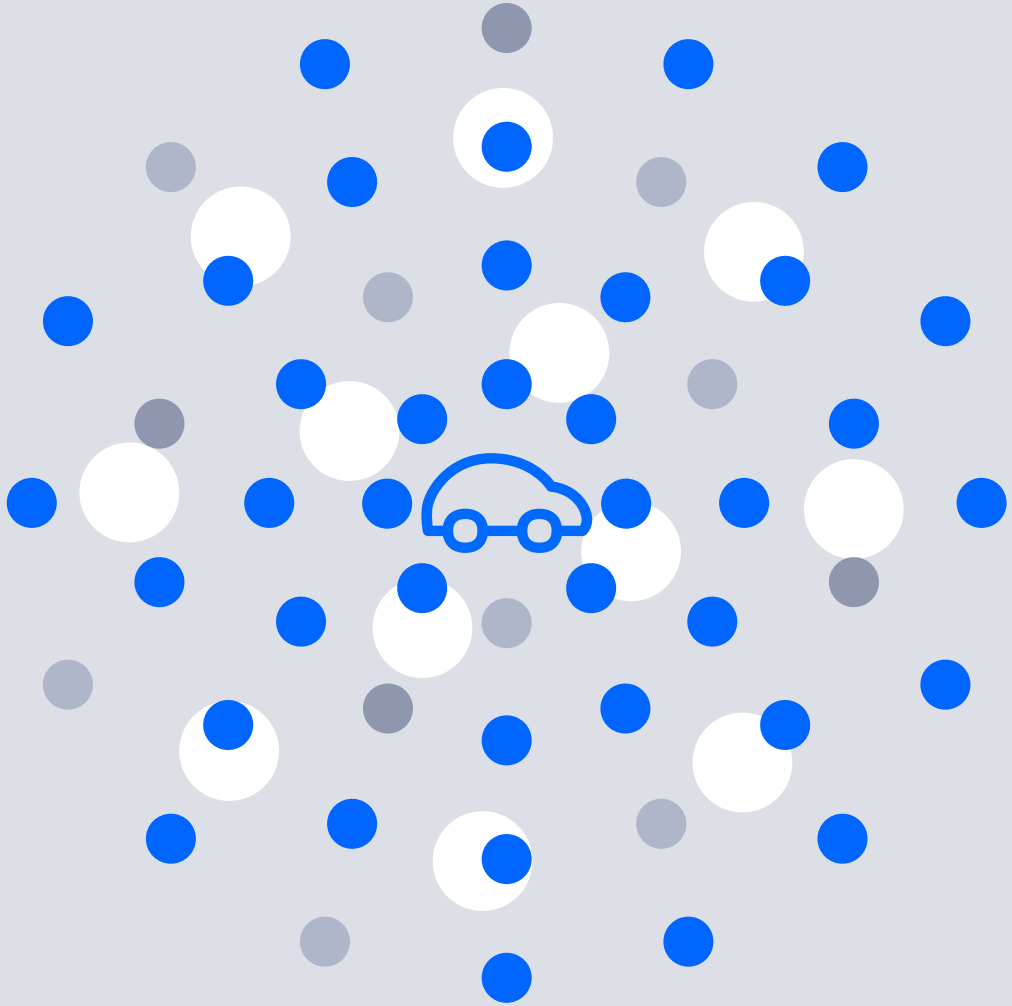
EDGE COMPUTING

NETWORK SLICING

CYBERSECURITY

Mobility Trials

Assited Driving to improve safety

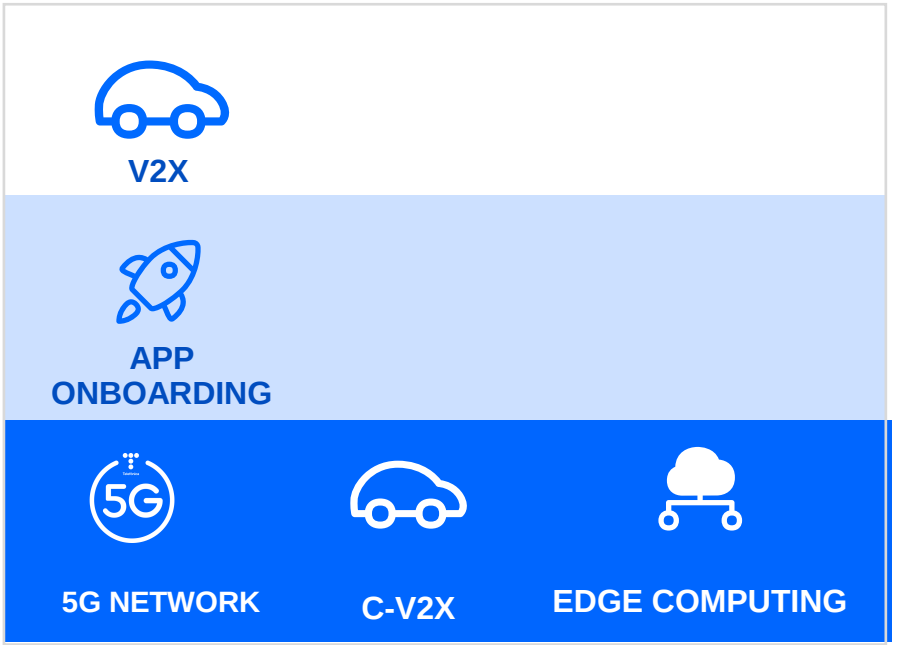


MWC 2022

5G Connected Car

Safety solutions for smart cities

Challenge: To provide intelligence to the road and to facilitate assisted driving, improving the information available to the driver to make decisions and, therefore, improve road safety.



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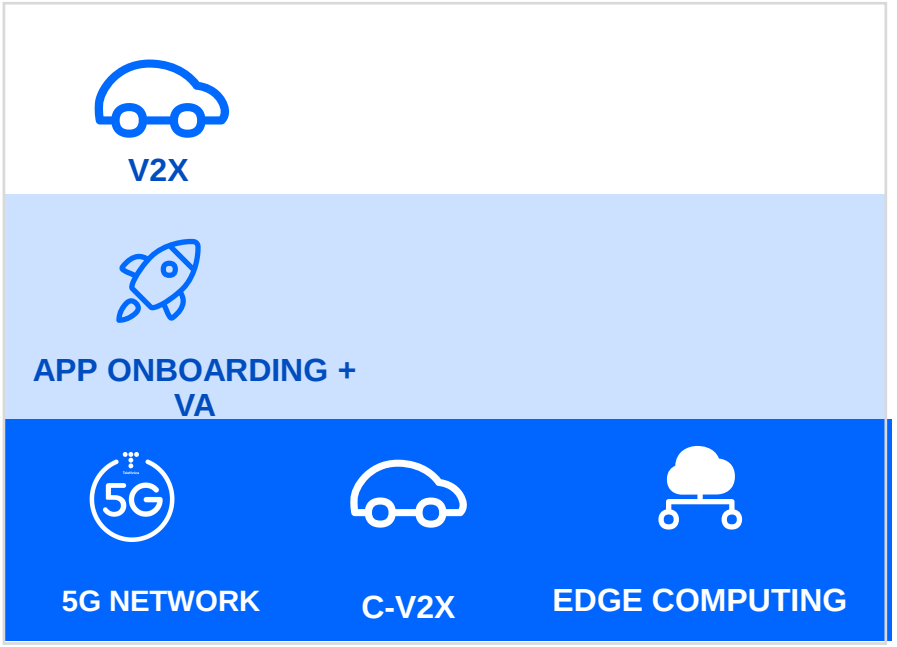
MWC 2022

5G Road Hazard Warning

Auttomatic road obstacles notification

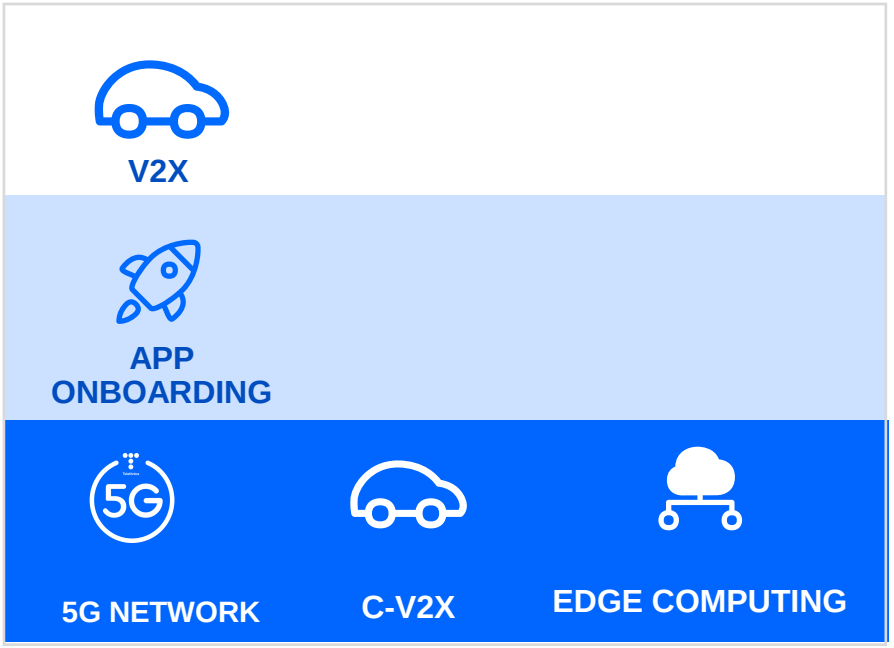
Challenge: Assisted driving in smart roads through DGT platform 3.0 using computer vision and machine learning technologies installed in the MEC to be able to detect when there is a bicycle or any other obstacle circulating on the road.



5G Connected Tunnel

First step towards the road of the future

Challenge: To provide intelligence to the road and to facilitate assisted driving, improving the information available to the driver to make decisions and, therefore, improve road safety.

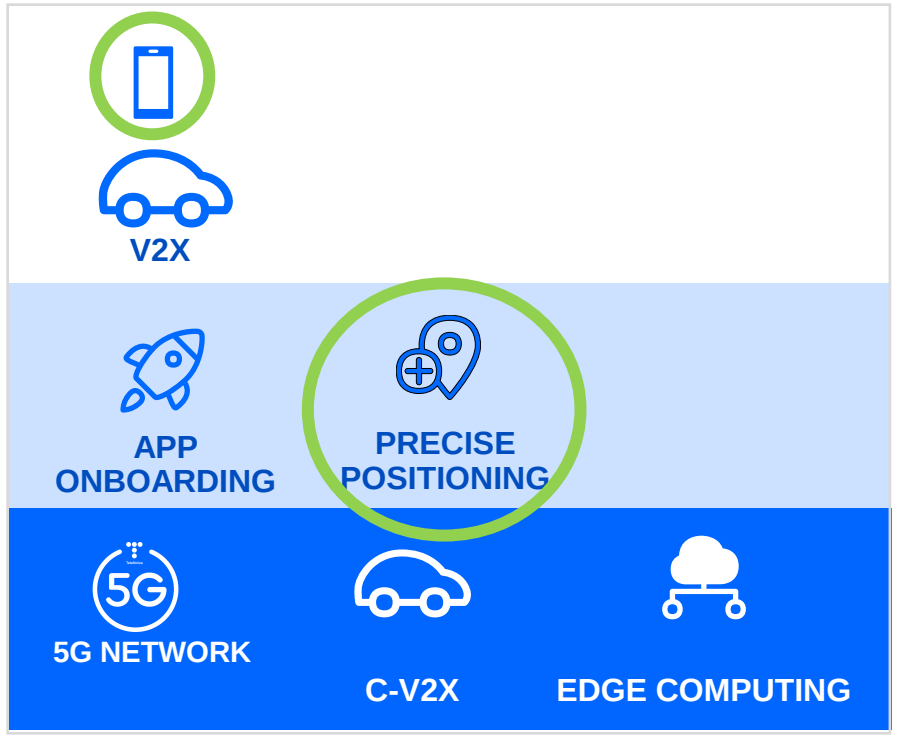


MWC 2022

5G Connected Cranes

Safety solutions for industrial and port traffic

Challenge:To adapt networked vehicle technology to industrial settings, providing an accurate localization and integrating ambulatory staff (providing them with a smartphone app connected to the V2X ecosystem). · .



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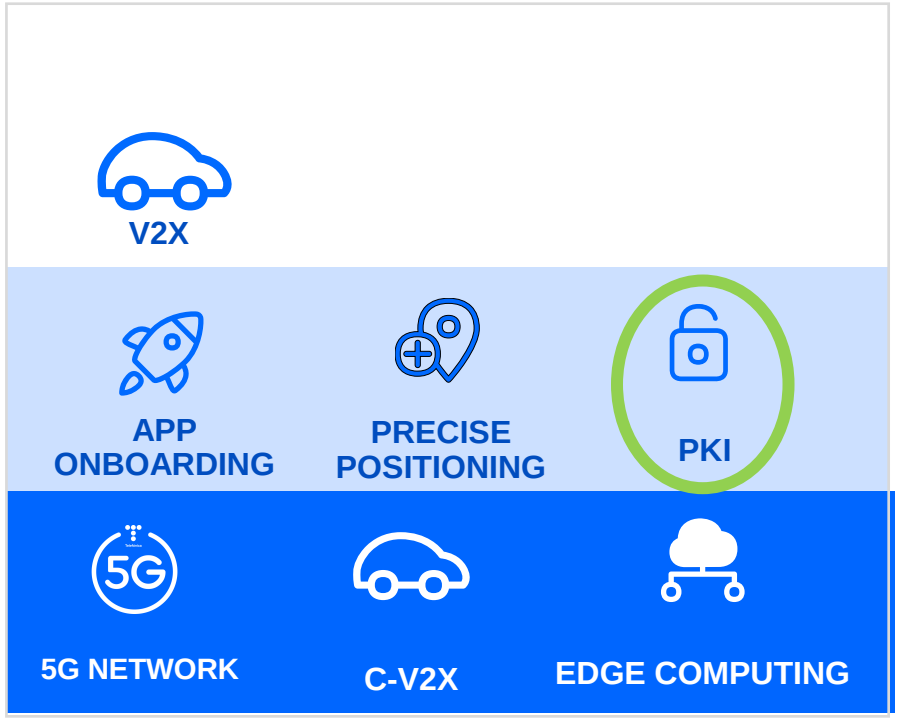
MWC 2022

5G cybersecurity in connected mobility

Key step to create a trustable mobility ecosystem.

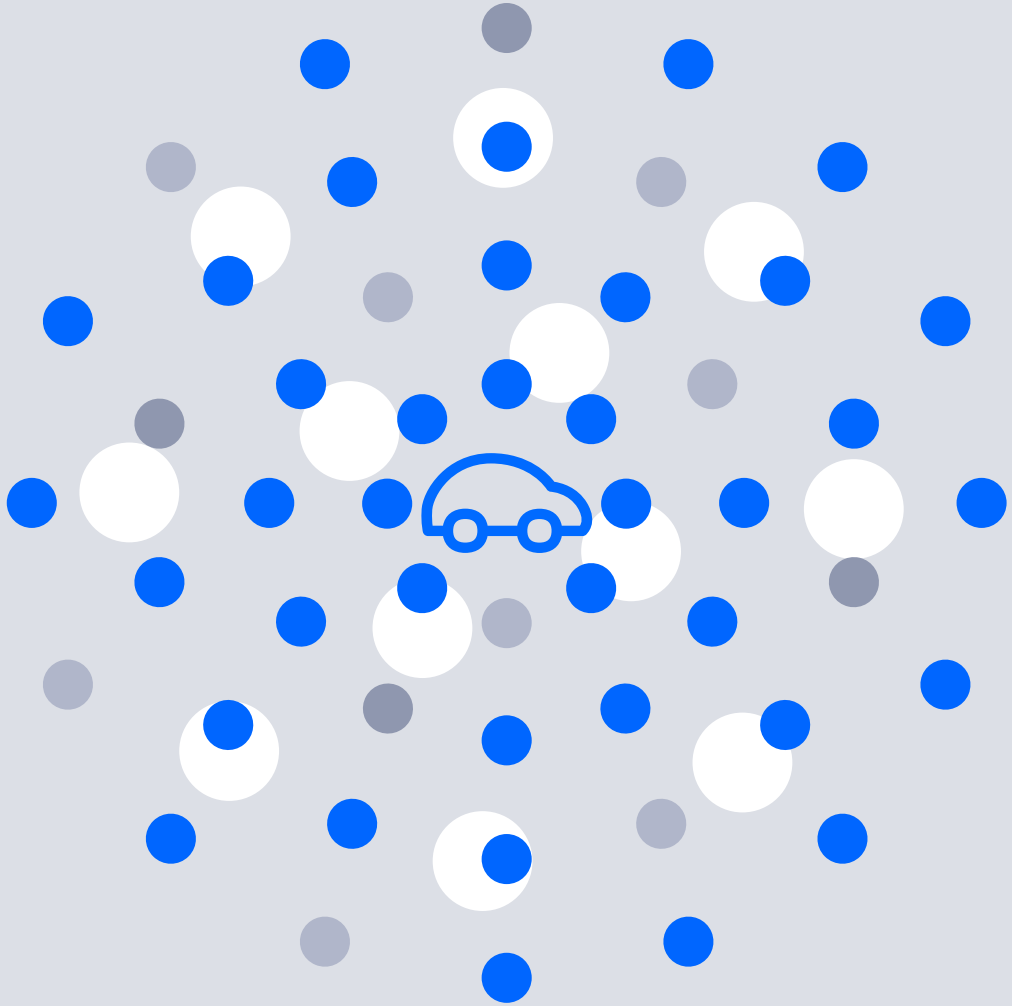
Challenge: To deploy a Certification Authority recognized by the European Commission linked to the 5G network for vehicular communications and compliant with the requirements of the C-ITS standard.



Telefónica DEKRA neXus Enabling trusted identities HARMAN CTAG Hewlett Packard Enterprise

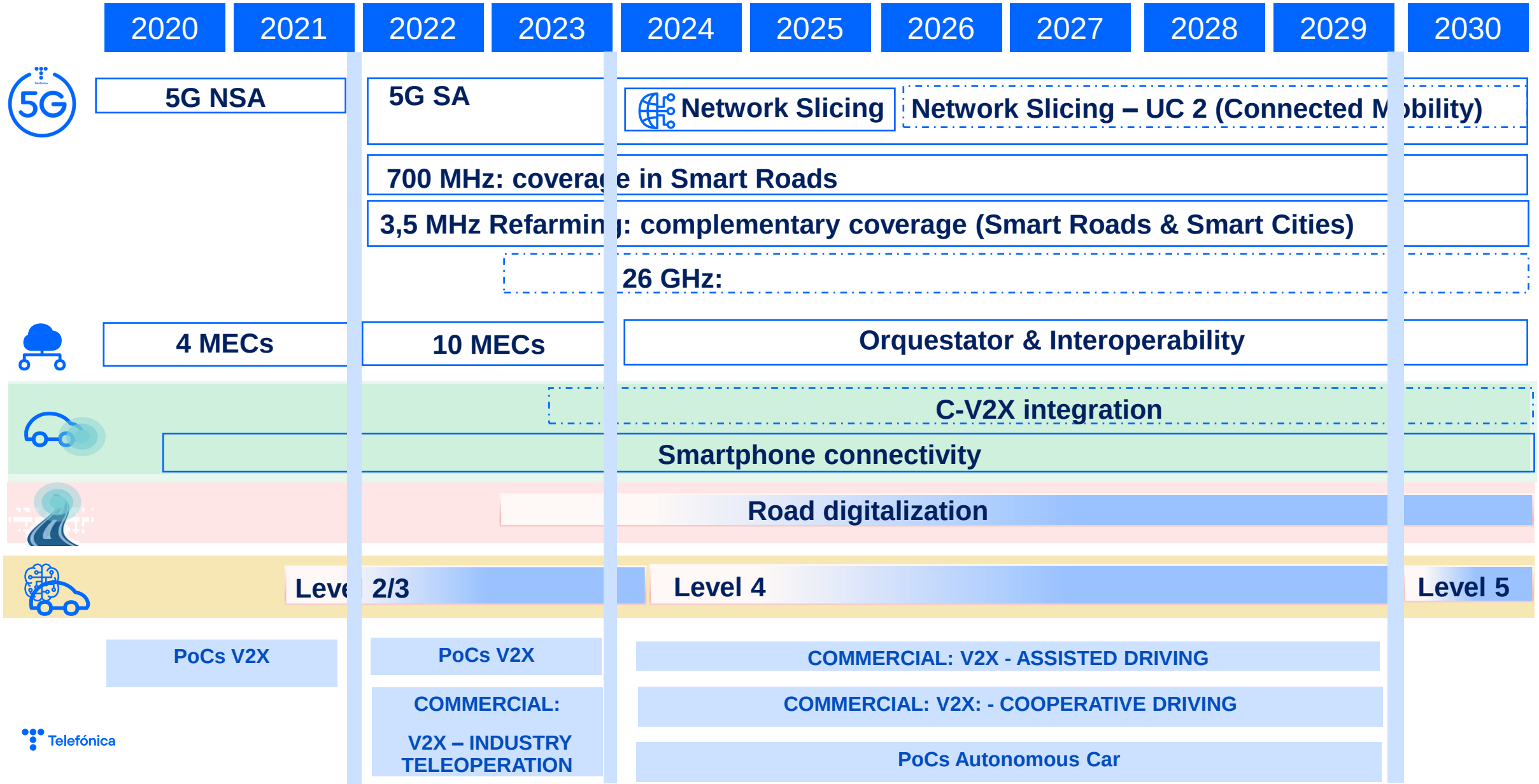
A glance to the future

Vision, roadmap & challenges



MWC 2022

Technological pillars for future mobility



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Challenges

TECHNOLOGICAL

REGULATORY

BUSINESS MODEL

CULTURAL

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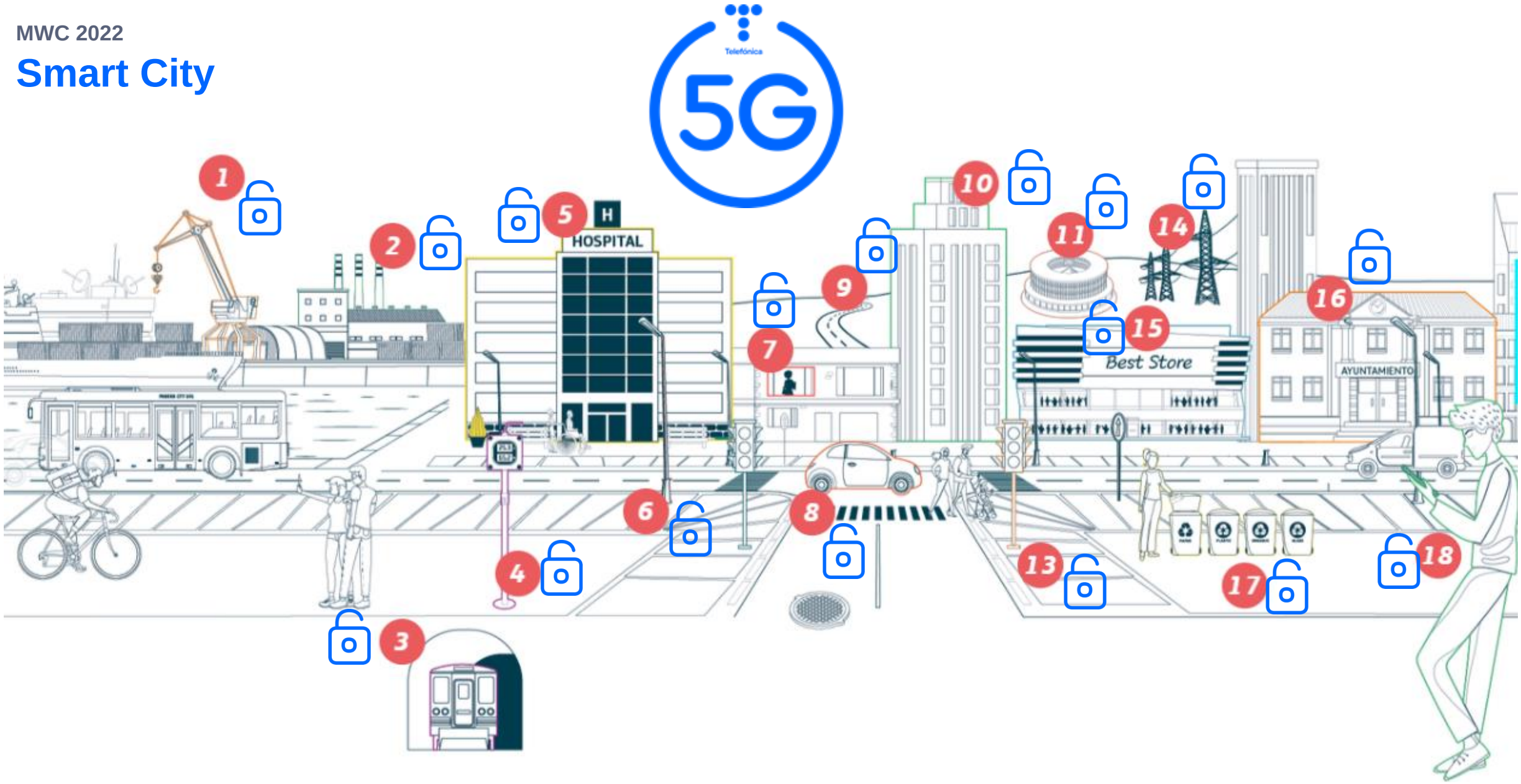
Smart City



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Yesterday it was unthinkable, today it is 5G