



# Infrastrutture Intelligenti: AI agentica, dati e sicurezza al servizio delle città

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[www.swarco-its.com](http://www.swarco-its.com)



#WeAreSWARCO

# Discover the world of a global traffic technology corporation

SWARCO IN NUMBERS

**750,000+** traffic lights worldwide

**Number 1**  
World market leader in intelligent transport systems.

**900,000,000+** €

**32,000,000+** €

SWARCO grows – and our partners grow with us.  
We managed to double our net sales over the past seven years.

Our annual expenditures on R&D.

SWARCO IN NUMBERS

**4000+** customers

B2B and B2G customers on all continents.

**4000+** mobility experts

Our over 4000 colleagues worldwide have a mission: They support the business partners in implementing safe, convenient and environmentally sound solutions, improving quality of life for all of us.

**80+** Countries safe

SWARCO's products, services and solutions serve business partners and road safety in 80+ countries.

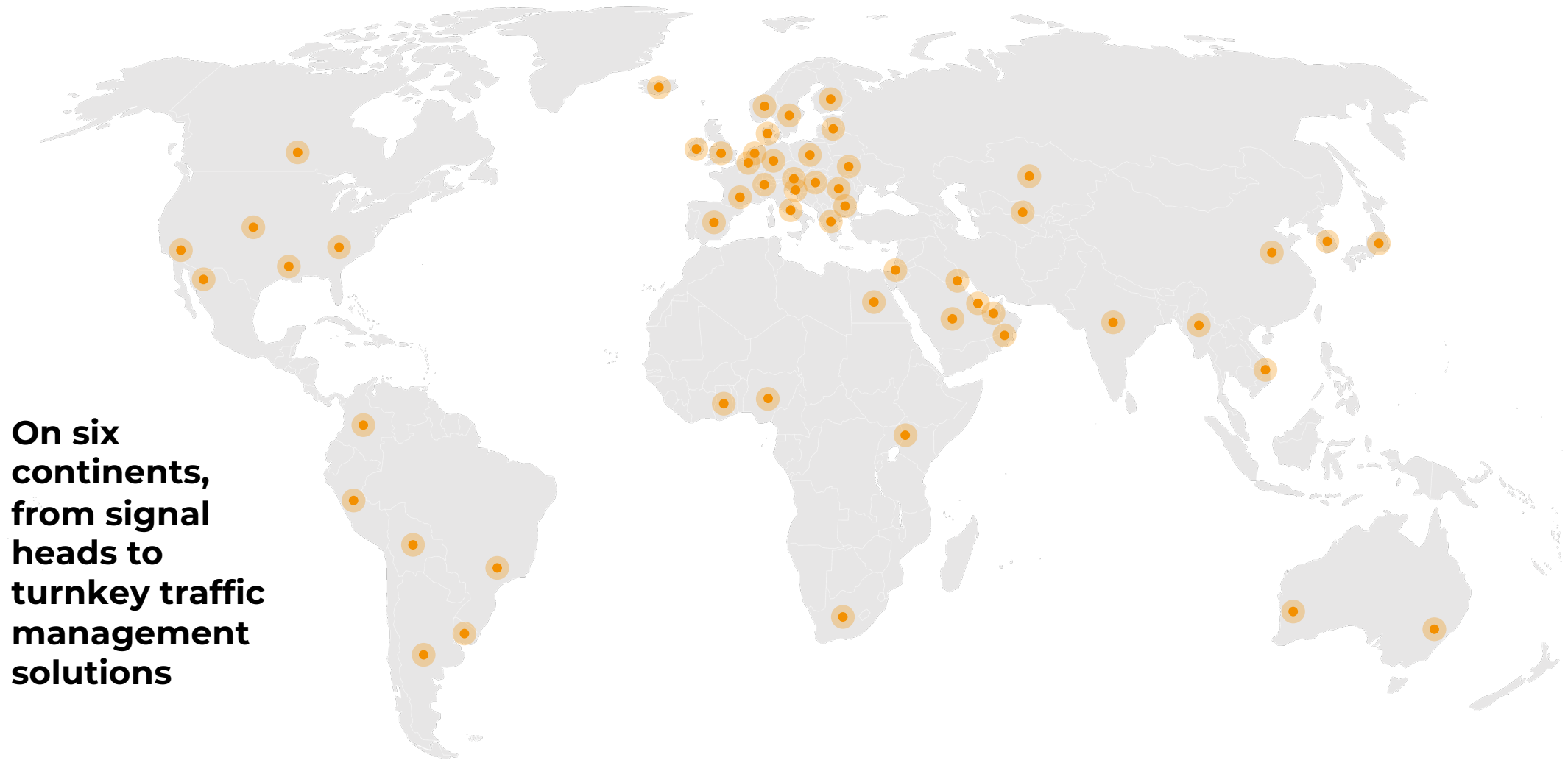
**25** countries

SWARCO employs mobility experts in 25 countries across the globe at some 200 sites.

**40+** years

The first chapter of the SWARCO ITS story was written in 1986, when founder Manfred Swarovski acquired the pioneering Austrian traffic light manufacturer Futurit-Werke AG.

A WORLD OF REFERENCES



**On six continents, from signal heads to turnkey traffic management solutions**

The background features a dark blue to black gradient. On the left, a globe is rendered with a grid of orange dots and lines, suggesting a global network. On the right, several parallel, wavy orange lines flow downwards, creating a sense of motion and data flow. The overall aesthetic is futuristic and technological.

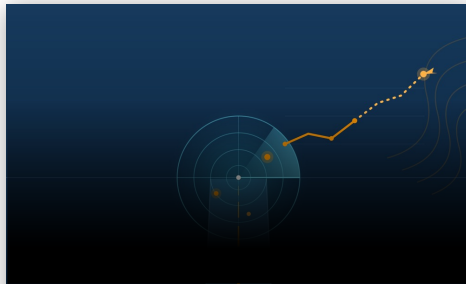
# Artificial Intelligence



**AI is transforming the current mobility: from reactive to predictive and adaptive networks that serve citizens.**

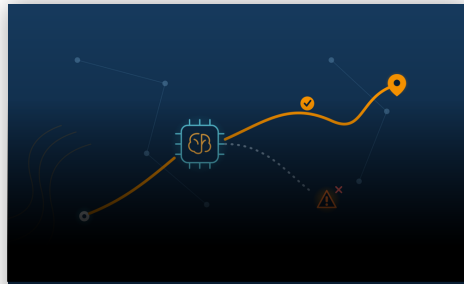
- ✓ Focused
- ✓ Efficient
- ✓ Tailored
- ✓ Future-proof
- ✓ Versatile
- ✓ Accurate
- ✓ Measurable
- ✓ Scalable
- ✓ Progressive

# SWARCO AI Suite: 4 Agents for the Next Gen Mobility



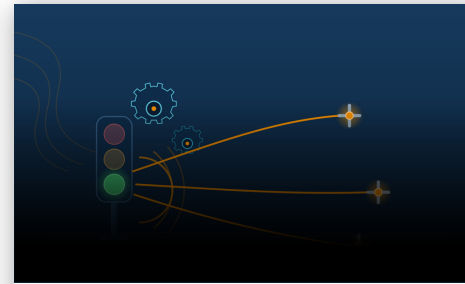
## **The Sentinel** *Monitoring & Forecasting*

- Real time monitoring of traffic conditions
- Forecasting of speed/volume up to 1h in advance
- Forecasting integrated into the TMS to use data combined with other data as weather, day type as an input



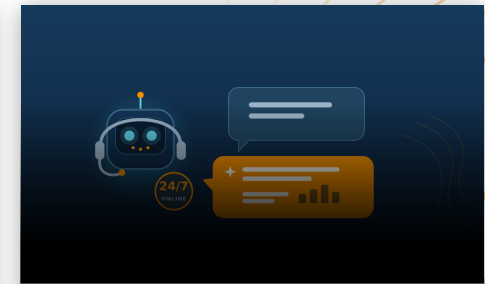
## **The Strategist** *Strategic Decision*

- Processes current data and Sentinel forecasts
- Generates mitigation strategies
- Feeds the Assistant for analysis and queries
- Automated Incident Management



## **The Actuator** *Strategy Implementation*

- Coordinated implementation of traffic strategies
- Link between forecasts and the strategy manager
- Coordinated response to incidents
- Implementation of mitigation measures



## **The Assistant** *24/7 Support*

- Chatbot integrated with TMS data: assets, statuses, alerts, metrics
- Insights, analysis, and strategy evaluation
- Reporting and ongoing support for operators

# The Importance of Data for the Cities

Every city generates an extraordinary wealth of data every day, both in terms of quality and quantity: traffic flows, public transportation, parking, and events.

This data should not be wasted: it is the resource used to train and refine AI models. Leveraging historical data means transforming the urban experience into intelligence, generating long-term benefits for citizens' quality of life.

## Key features

- Continuous and structured collection of urban data
- Data quality: validation, standardization, and integration of sources
- Historical data series as a training basis for AI models
- Models that learn and improve alongside the city
- Data-driven decision-making and planning for the benefit of citizens



The background features a dark blue gradient with a glowing orange globe on the left, composed of a grid of dots and connected by thin lines. On the right, there are several parallel, wavy orange lines that create a sense of depth and movement. The overall aesthetic is high-tech and digital.

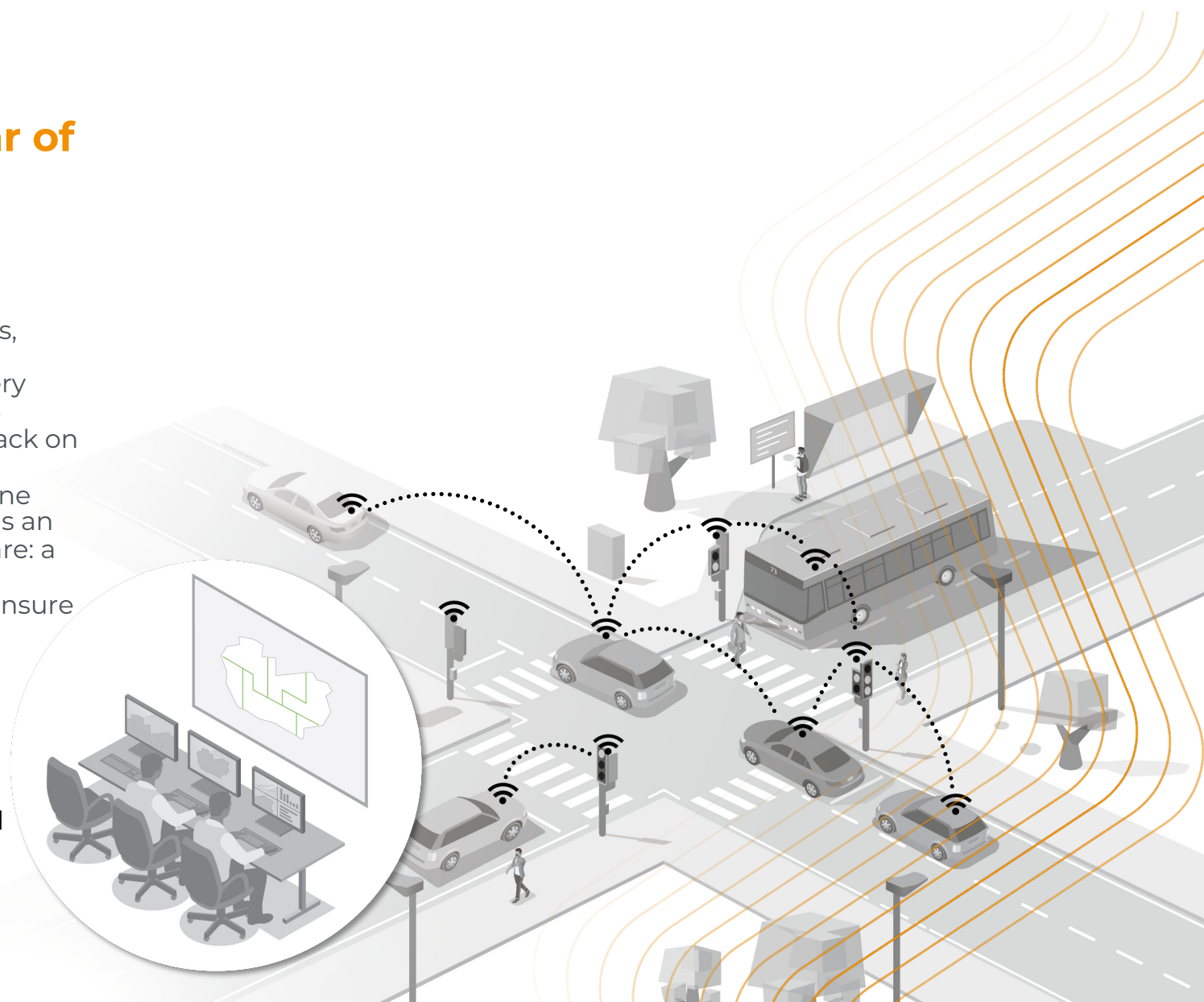
# Cybersecurity

## Cybersecurity as a Pillar of Modern Mobility

Mobility infrastructure is becoming increasingly connected: control centers, traffic signal controllers, vehicles, and sensors communicate in real time. Every connection generates value, but it also expands the attack surface: a cyberattack on an ITS system can paralyze traffic, compromise road safety, and undermine public trust. That is why cybersecurity is an integral part of SWARCO Italia's software: a "security by design" approach, from controllers to the central platform, to ensure service continuity.

### Main Impacts

- Disruption of mobility services
- Risks to user safety
- Compromise of data and operational continuity.



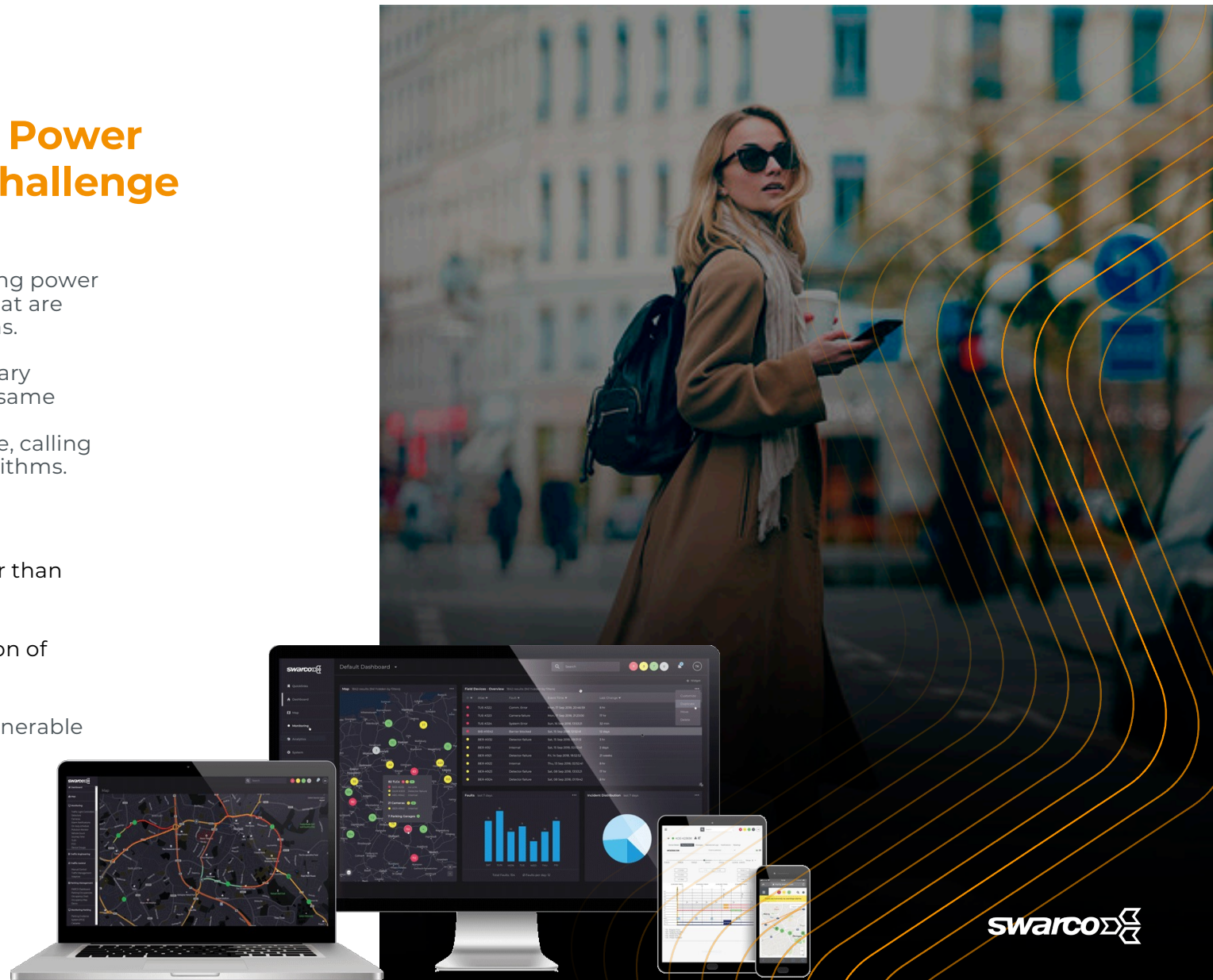
## When Computational Power Becomes a Security Challenge

Quantum computing opens up a new computational frontier: a level of computing power capable of solving problems in minutes that are currently intractable for traditional systems.

For mobility, this represents an extraordinary opportunity; for security, a challenge: this same power could identify and expose far more vulnerabilities than we currently anticipate, calling into question existing cryptographic algorithms.

### Key Points

- Computing power exponentially greater than that of traditional computers
- Opportunity: optimization and simulation of mobility networks on an urban scale
- Risk: current cryptography becomes vulnerable data protected today may be decrypted tomorrow





**"The best way  
to predict the  
future is to  
create it."**

*Abraham Lincoln*



**Let's start  
our journey  
together**

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