Digital connectivity drives climate action & sustainable development

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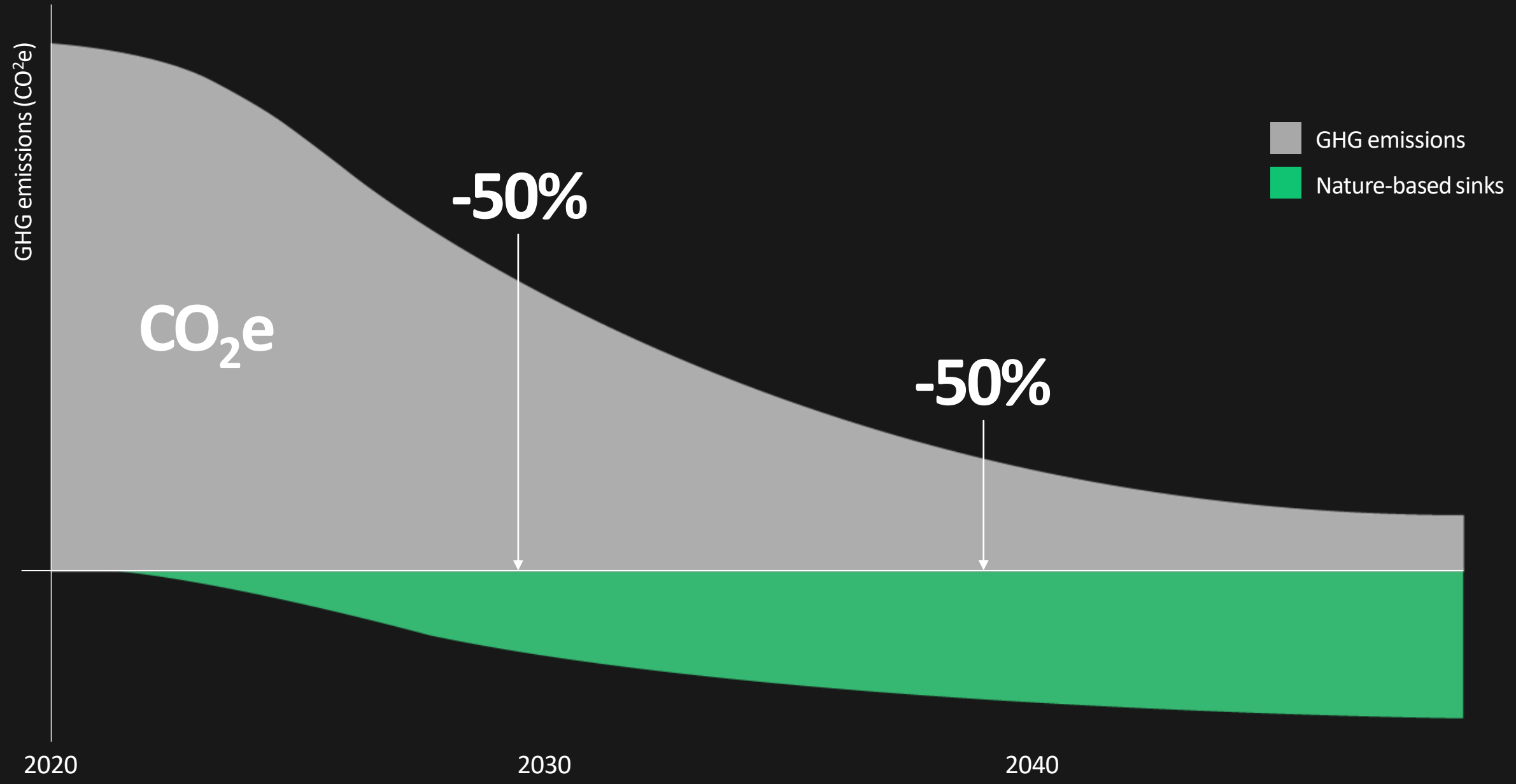
Climate change is real and having devastating impacts – now!
2nd hottest
year on record 2020
$45 billion
annual cost of extreme weather events in the United States

Exponential climate action required now!



By 2030 the information and communication technology sector can have a massive impact

[4] Malmodin, J. and Bermark, P. (2015), Exploring the effect of ICT solutions on GHG emissions in 2030, Proceedings for ICT for Sustainability Conference

[5] In a high reduction scenario based on the broad application of ICT in other sector to drive efficiency and transformation. The sum of individual sectors is around 16 percent, whilst double counting effects have been removed for the aggregated total of around 15 percent

Ericsson is leading the way

CO_2 neutral

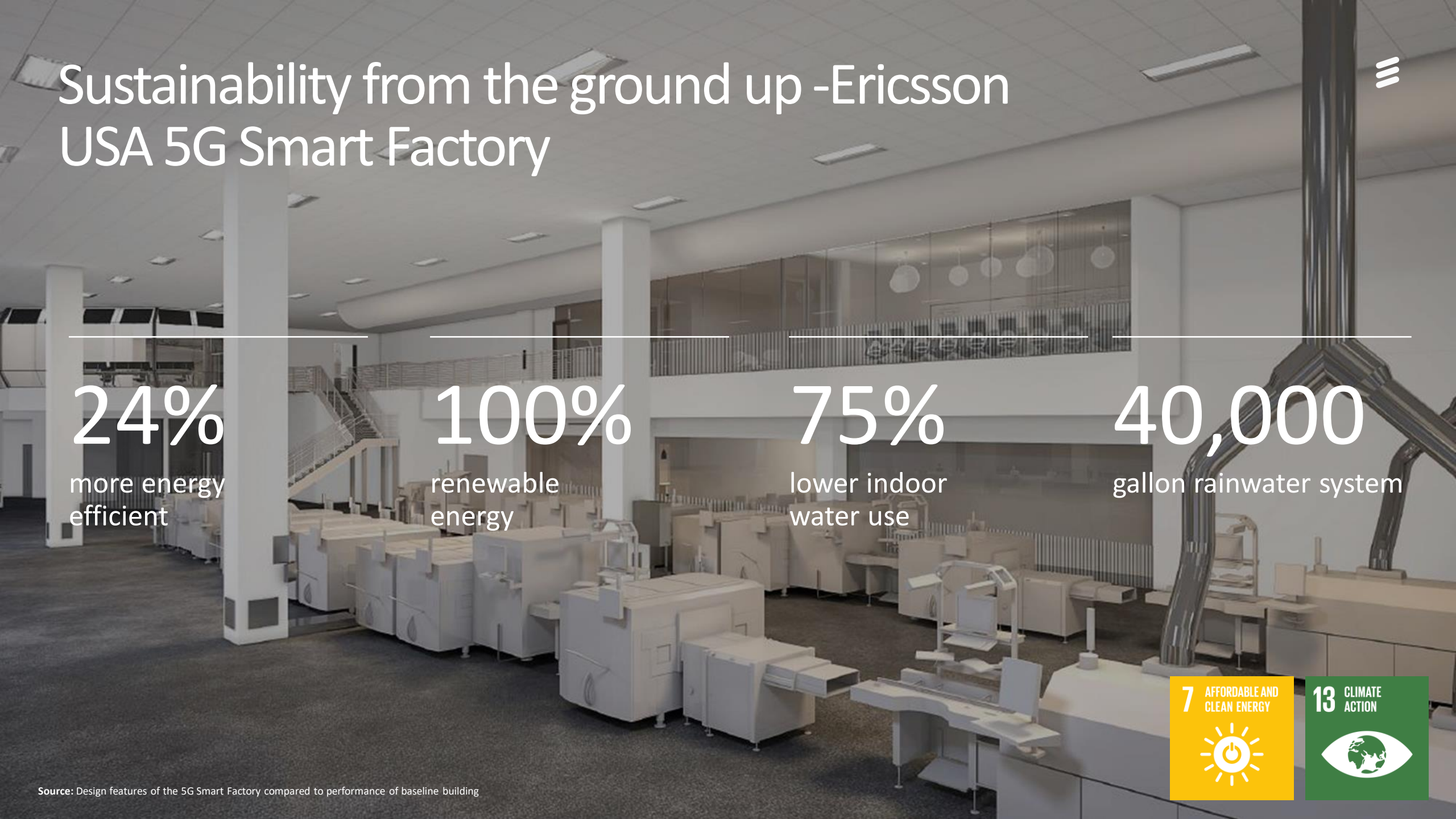
for company operations by 2030

10X

more efficient 5G portfolio than 4G by 2022

Sources: Ericsson Sustainability & Corporate Responsibility Report 2019

Sustainability from the ground up -Ericsson USA 5G Smart Factory



24%
more energy efficient

100%
renewable energy

75%
lower indoor water use

40,000
gallon rainwater system

Source: Design features of the 5G Smart Factory compared to performance of baseline building

Reducing the impact of digital networks

$25 billion

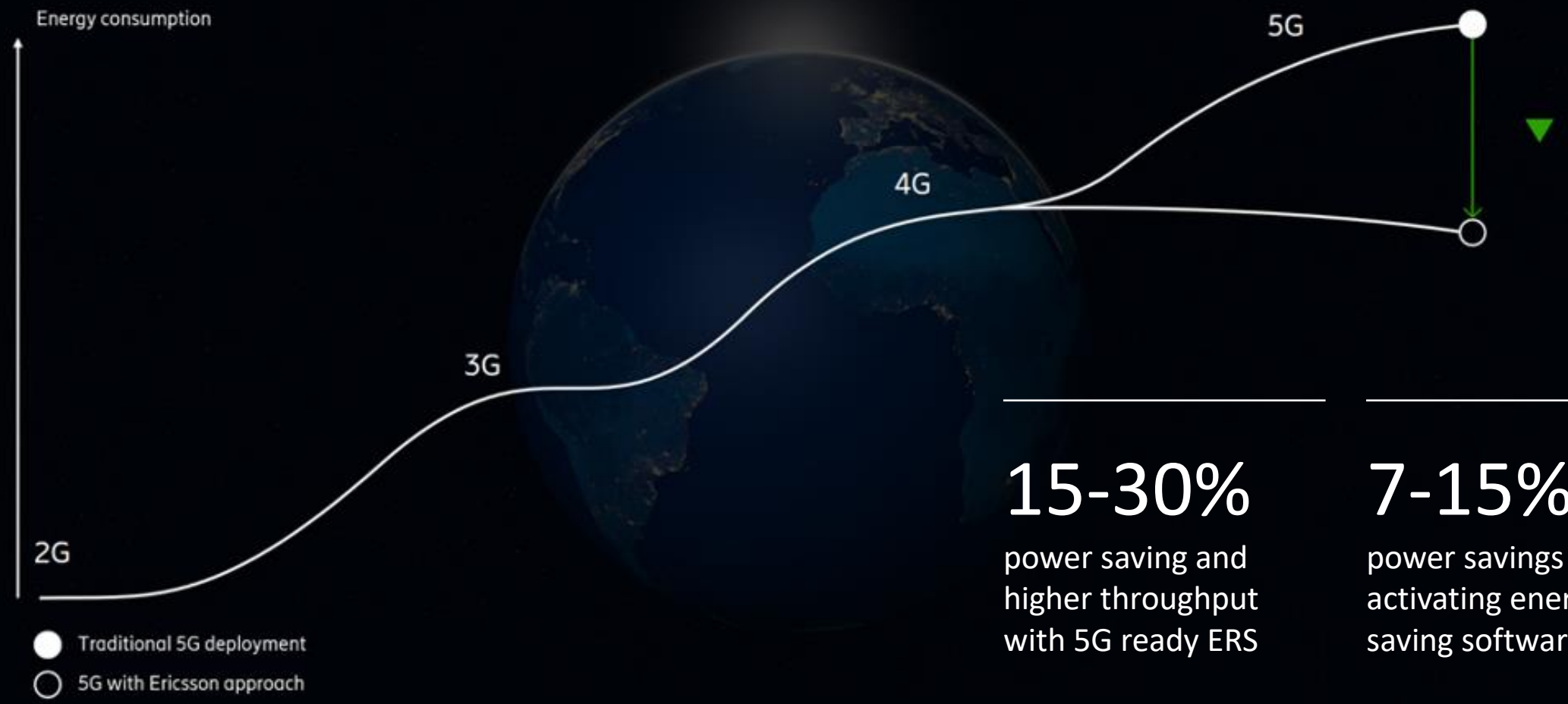
annual energy costs of running mobile networks globally

5X

increase in global mobile data traffic by 2025

Source: Ericsson Mobility and Breaking the Energy Curve reports

Reducing the impact of digital networks



15-30%
power saving and higher throughput with 5G ready ERS

7-15%
power savings by activating energy saving software

Source: Ericsson mobility and Breaking the Energy Curve reports

Transforming transportation

90%
emission reduction

60%
cost savings

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

Emission reduction based on Swedish electricity mix

Bridging the digital divide

37%

rural students without adequate connectivity

21%

urban students without adequate connectivity

$130 million/day

economic loss from lack of connectivity

4 QUALITY EDUCATION

17 PARTNERSHIPS FOR THE GOALS

5G enabling the adoption of renewable energy sources

66%

global emissions for energy sector

85%

power from renewables by 2050

826 Gigawatts

new renewable capacity commitments

Reference: Exponential Climate Action Roadmap, Ericsson, UN summary for policy makers

Digitalization is critical for decarbonization of the industrial sector

32%

of global emissions

20%

reduction with real-time monitoring and control

Reference: Exponential Climate Action Roadmap, World Economic Forum

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

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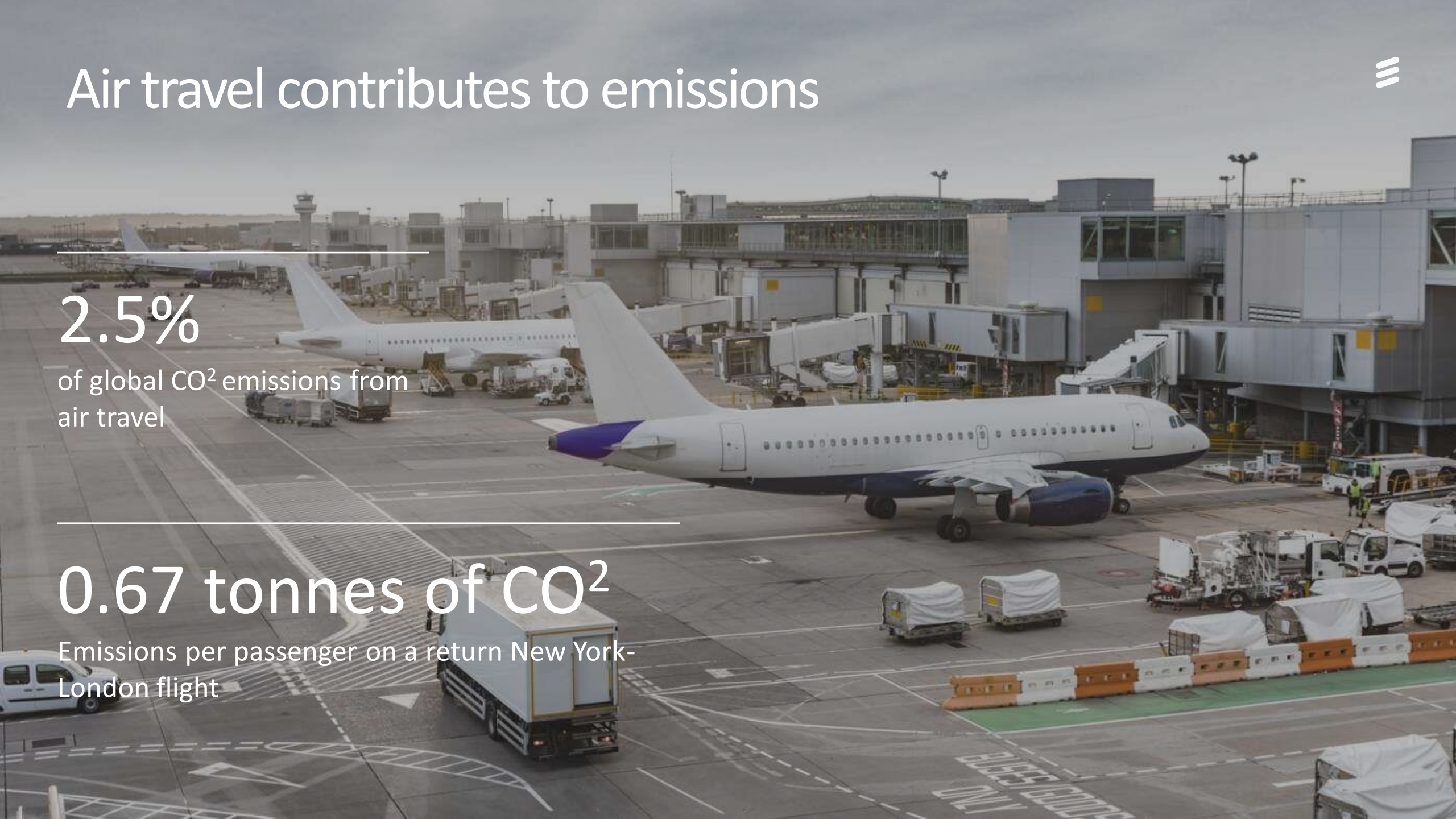
Air travel contributes to emissions



2.5%

of global CO^2 emissions from air travel

0.67 tonnes of CO^2

Emissions per passenger on a return New York-London flight

AR/VR at Ericsson Research

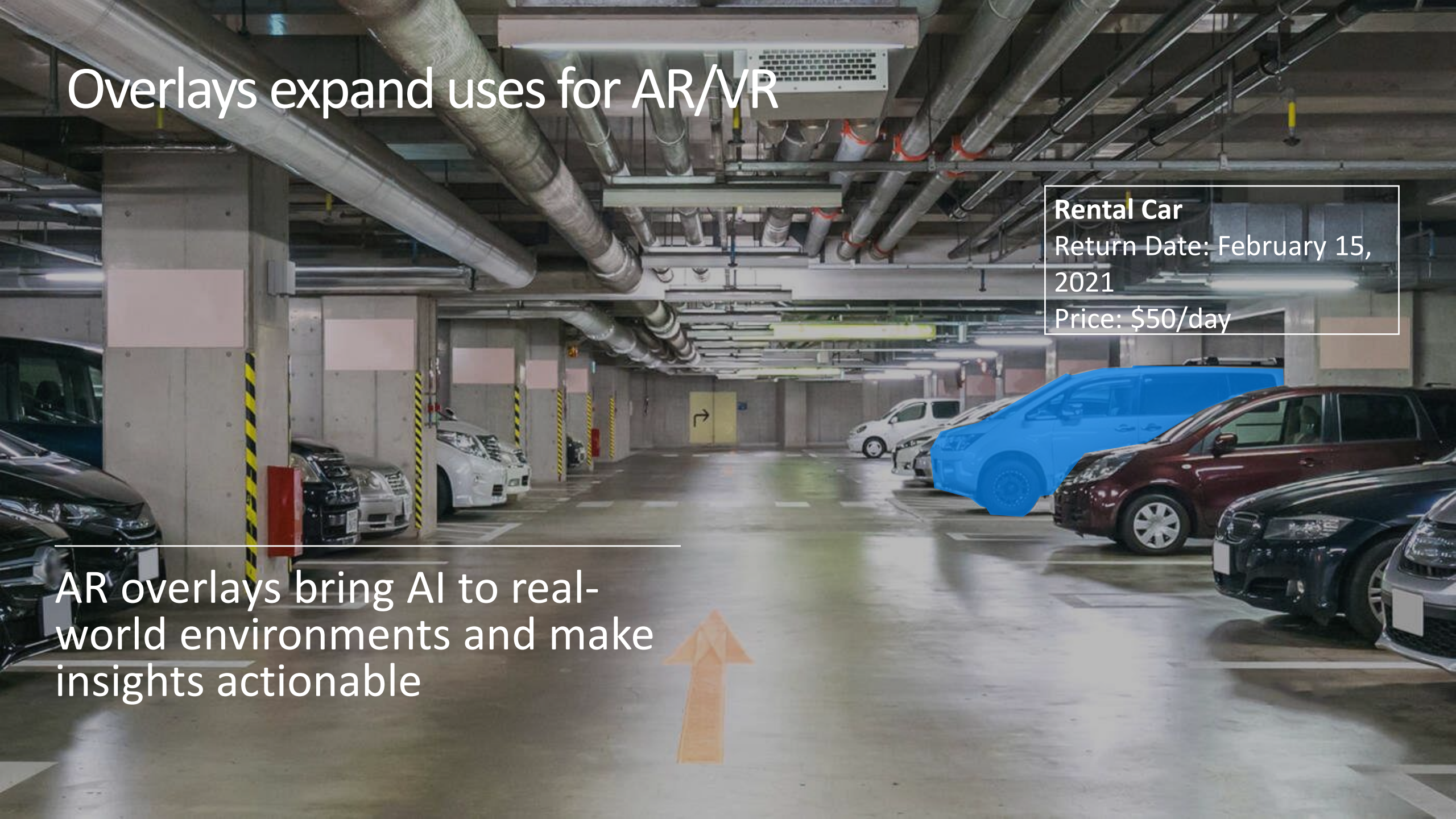
2025

Ericsson Research’s vision is that advanced technology will enable a full internet of senses

Spatial computing is critical for AR/VR

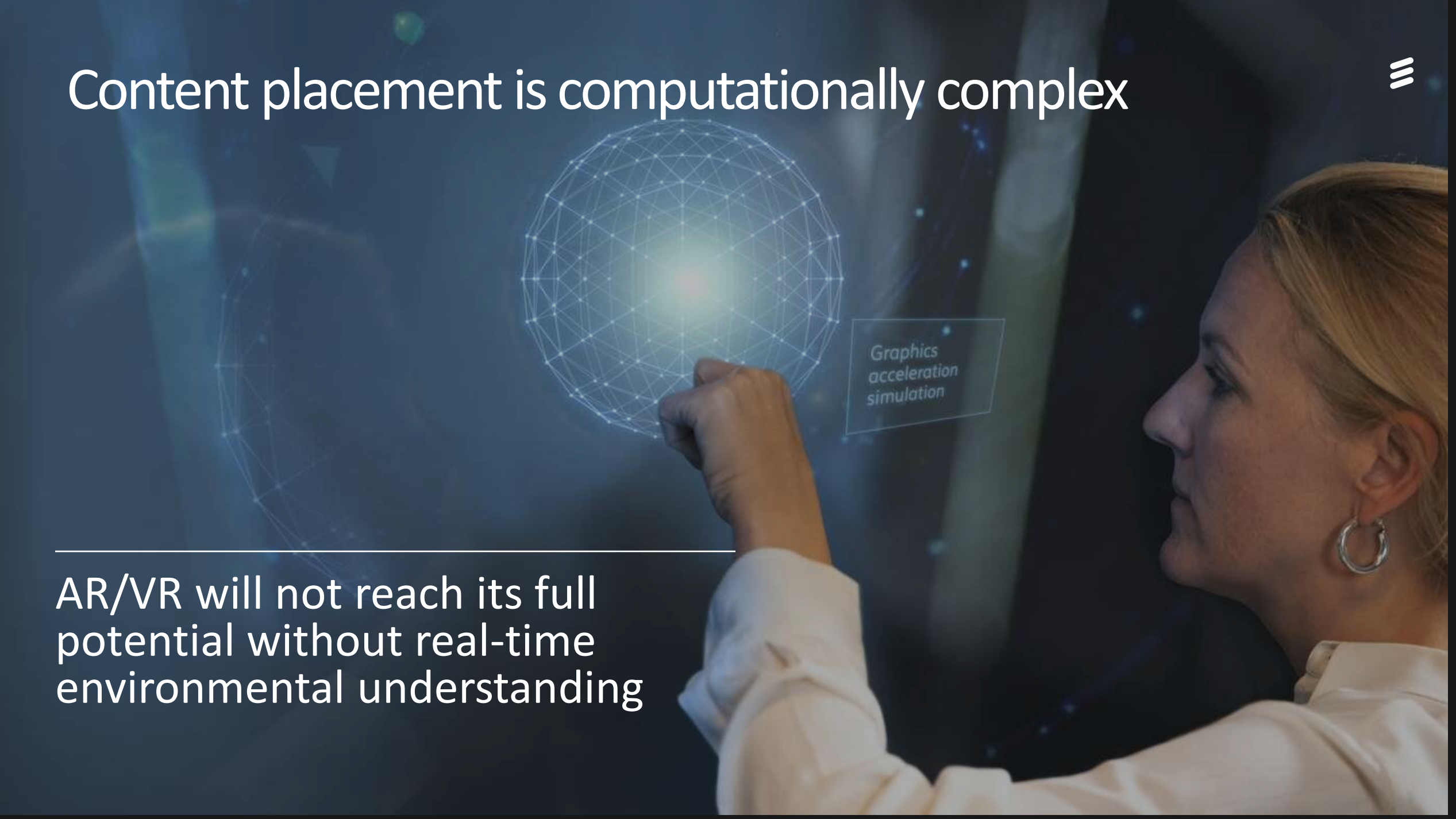
Interactive AR/VR needs to understand users' environments and the objects around them

Overlays expand uses for AR/VR



AR overlays bring AI to real-world environments and make insights actionable

Content placement is computationally complex



AR/VR will not reach its full potential without real-time environmental understanding

XR headsets are evolving rapidly

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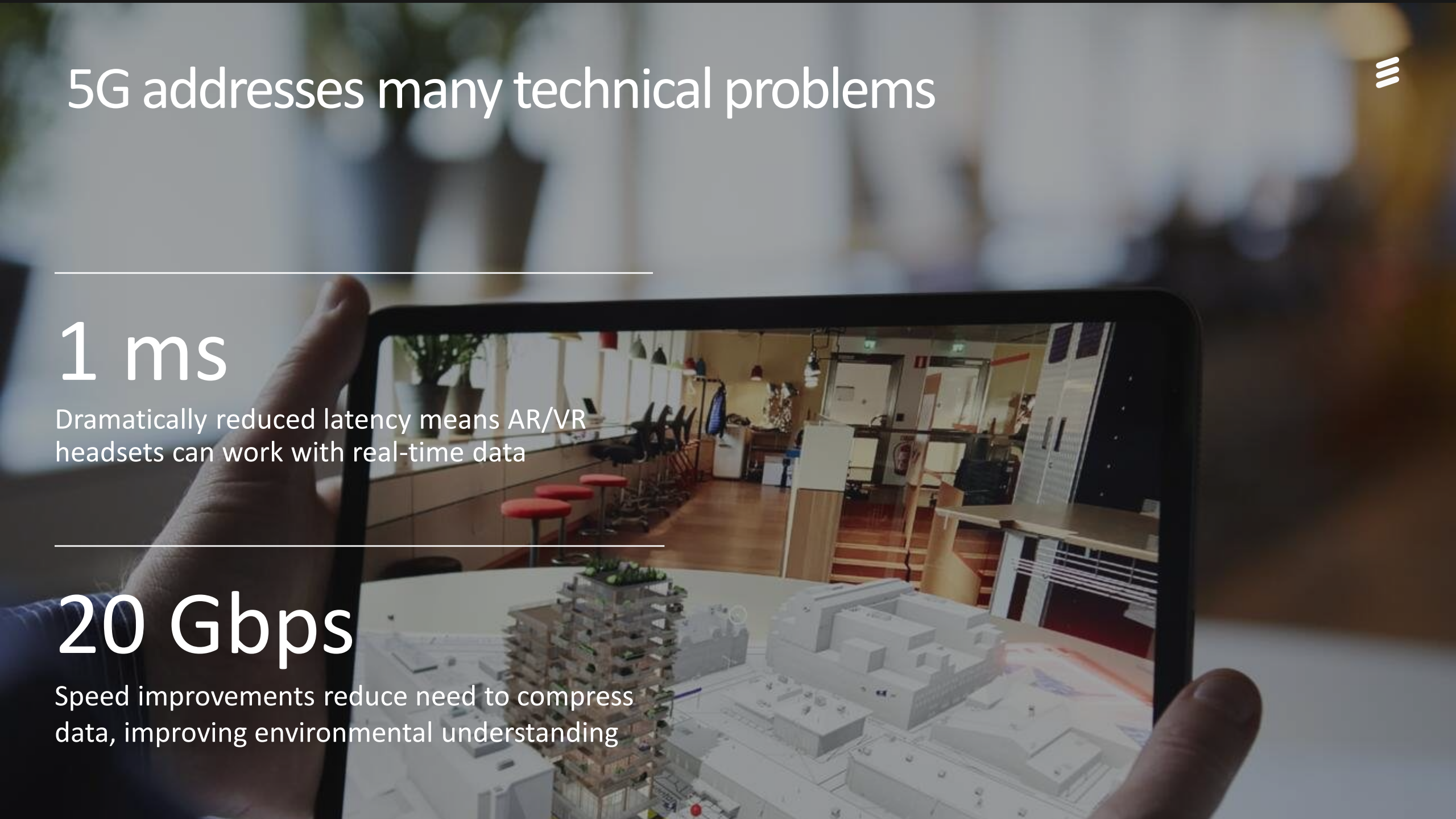
XR headsets on today’s commercial market with embedded 5G chips

Mobility

Without 5G chips, current AR/VR headsets cannot push data to the network unless connected to WiFi

5G addresses many technical problems



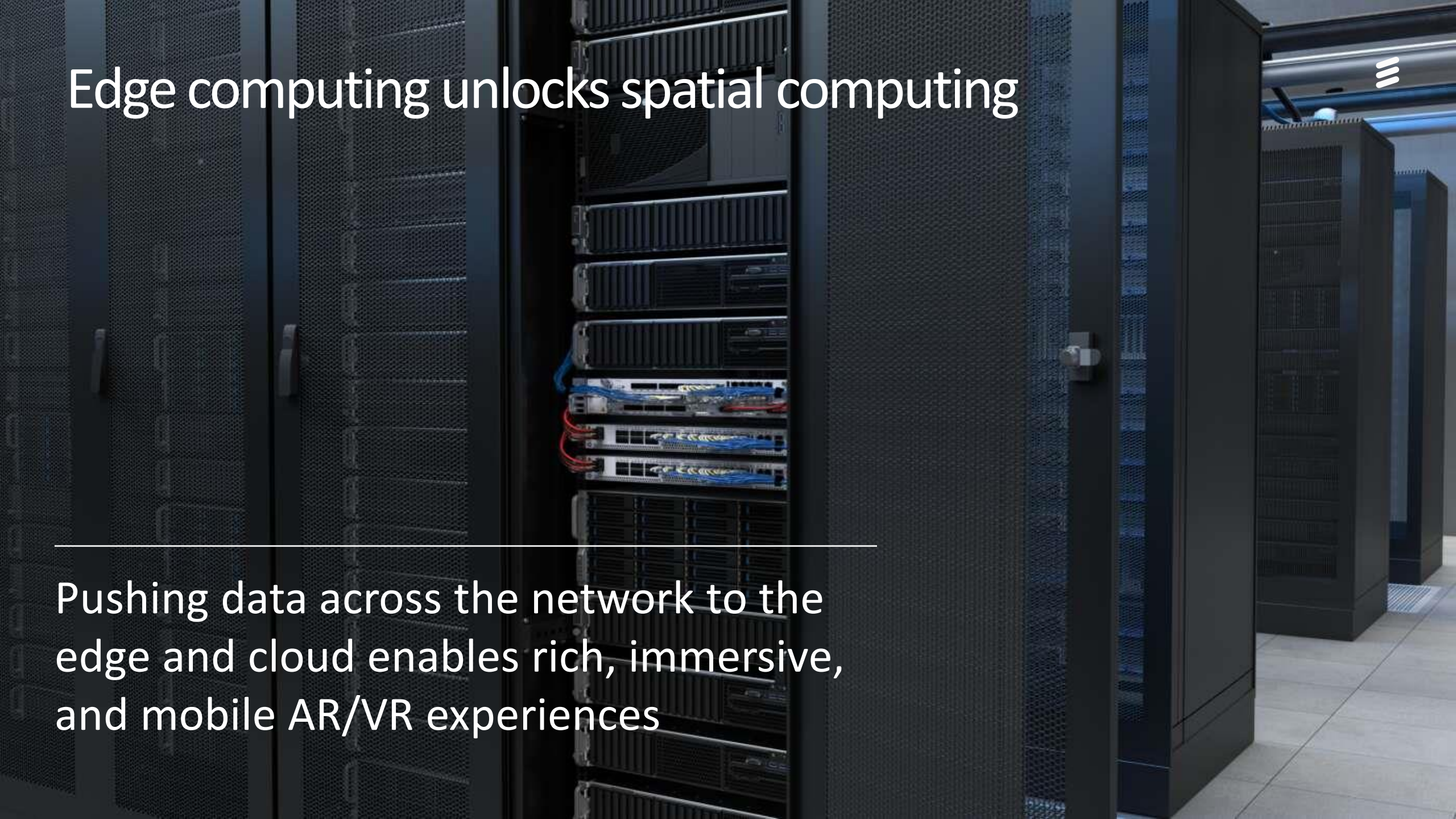
1 ms

Dramatically reduced latency means AR/VR headsets can work with real-time data

20 Gbps

Speed improvements reduce need to compress data, improving environmental understanding

Edge computing unlocks spatial computing



Pushing data across the network to the edge and cloud enables rich, immersive, and mobile AR/VR experiences

5G means AR/VR headsets are evolving

Form factors

Offloading compute into the network reduces headsets' weight and size

Mobility

Experience XR outside the home and update content in real time

Battery life

Processing environmental data at the edge or cloud reduces energy consumption

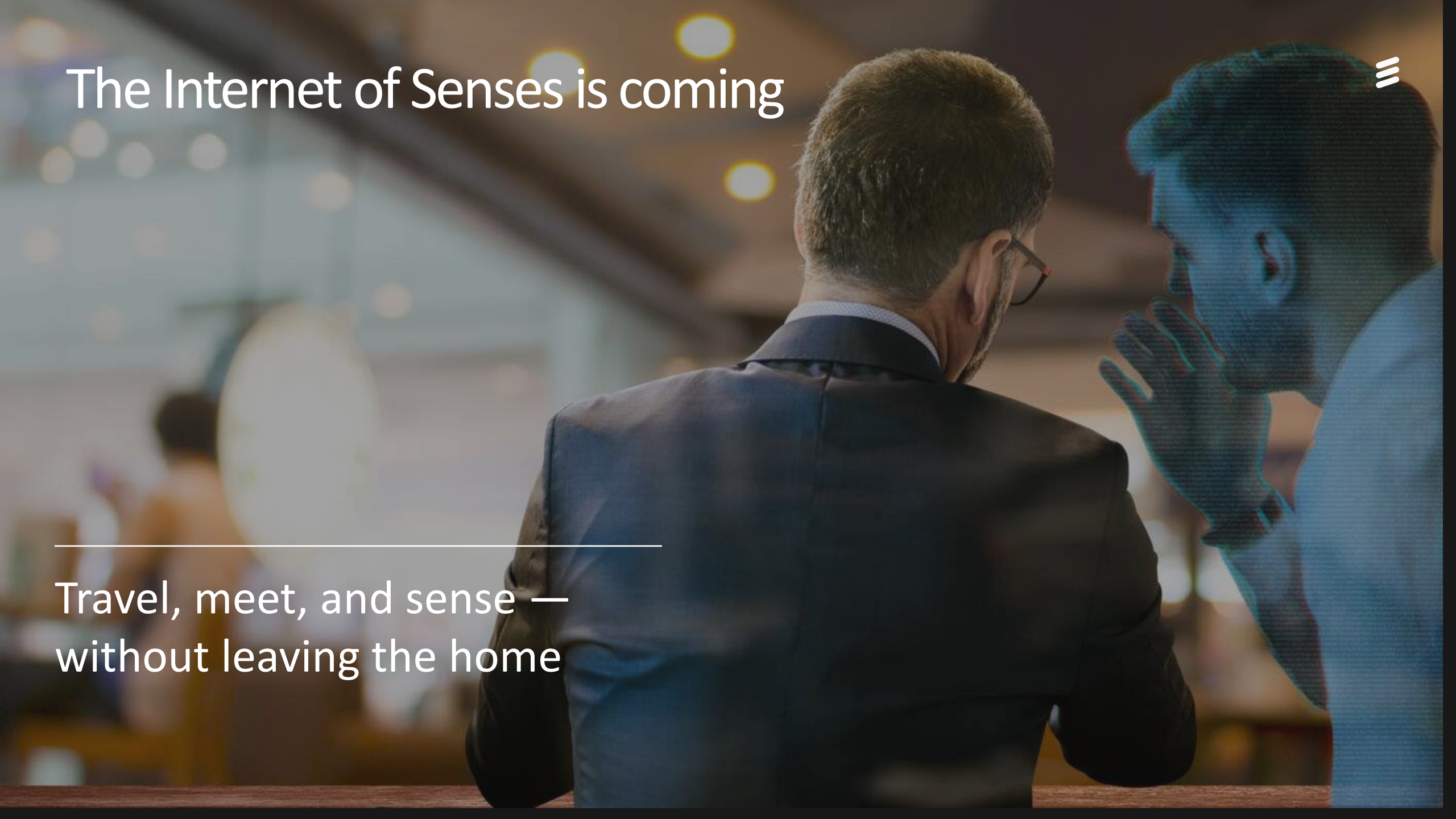
Collaboration

Allow multiple users to experience the same content and environment at the same time

Lenovo A3

Nreal

The Internet of Senses is coming



Travel, meet, and sense —
without leaving the home

ericsson.com/research