

# The Living Network: AI as the Pulse of Modern Telecoms

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2025

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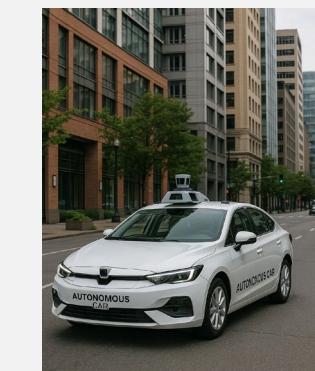
# 01

# Market Trends

# New World: Emergence Of Native Use Cases

AI & GenAI underpin many public indoor and outdoor use cases



Consumer-Centric			Industry-Centric		
Smart Phone	XR Devices	AI Agents	IoT	AVs	Droids
					
(Gen)-AI enabled hyper-personalized content may increase retention further.	Uplink-heavy compute offload; usage of AI Gaussian Splatting, etc.	Emergence of uplink-heavy video/ multi-modal LLMs and AI Agents / Assistants.	Embedded edge-(Gen)AI capabilities emerging in IoT, such as smart cameras.	Autonomous vehicles require UL&DL telemetry; effect of UL already felt!	AI autonomous droids with heavy uplink; industry and later consumer use.

UL and DL increase: 5G SA / 5G-Advanced will provide initial capabilities; 6G will provide scale.

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# Impact: Large Impact Onto Telco Networks

Convergence of {networks, devices, applications} indicates disruption

Emerging use cases to drive significant UL traffic

Short term



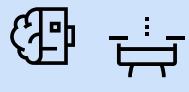
AI glasses  
Early adopters of AI glasses / AI-enabled devices, providing proactive assistance.

Mid term



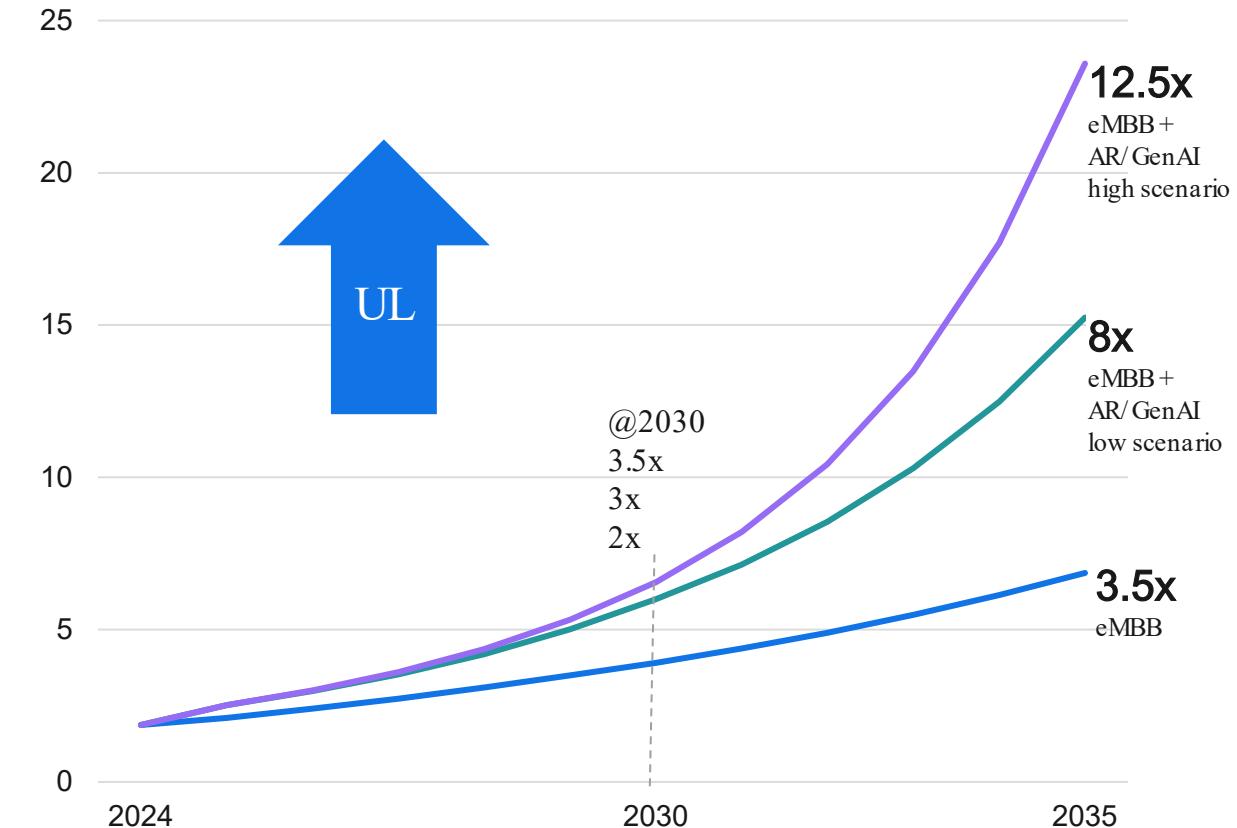
GenAI + AR  
Scale of consumer usage of AI Assistants on smartphones, AI/ AR glasses, etc.

Long term



Droids, AVs  
Emergence and scale of autonomous vehicles (AVs), humanoid droids, etc.

Consumers & enterprise to increase UL by 10x



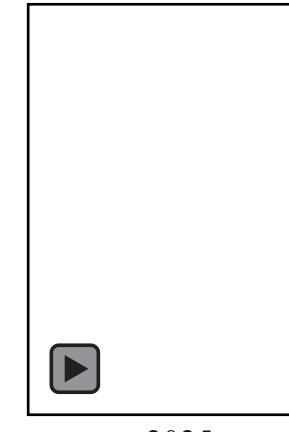
# 02 Why Now?

# AI Algorithms and Infrastructure

## Large Strides in Short Time Window



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\* Ian Goodfellow, 4.5 years of GAN progress on face generation

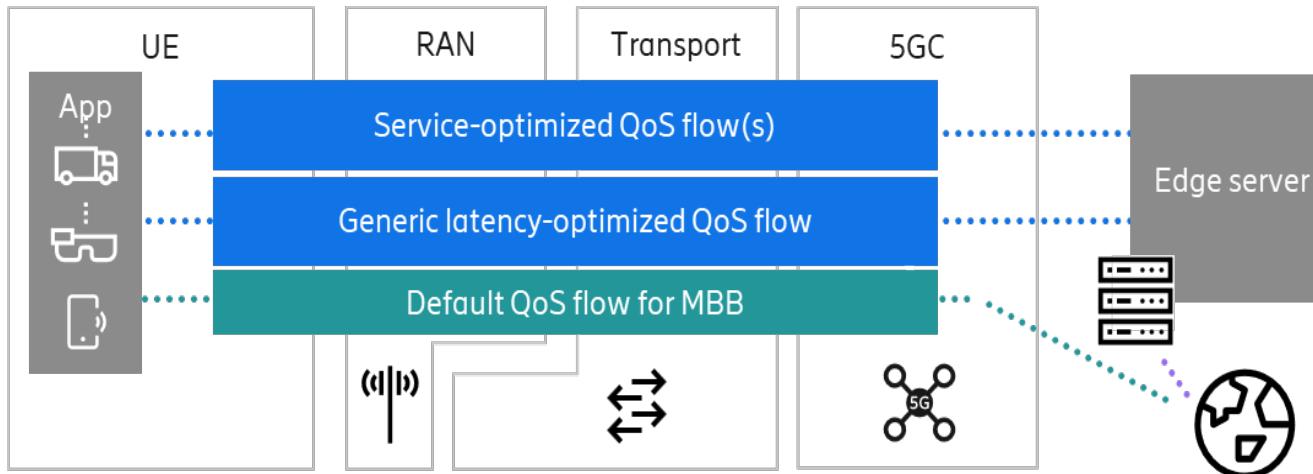
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# Networks

## Multiservice, uplink optimization

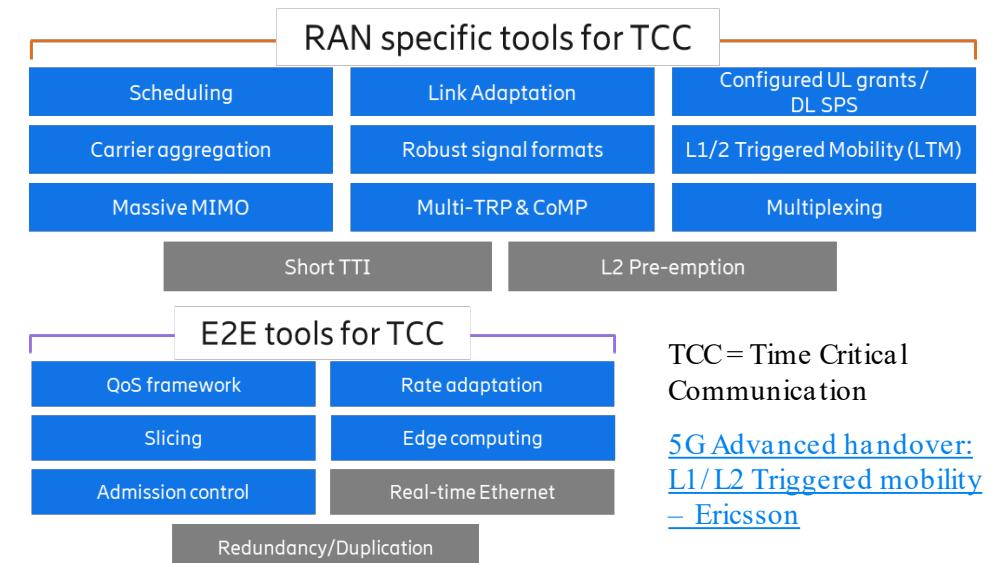
### Multi-Service Networks

1. Diff connectivity, slicing, security
2. Operational efficiency & new revenues
3. Exposure & Programmability



### UL-Optimized Networks

1. UL MU-MIMO/Configured Grant/CA/etc
2. Latency-prioritized scheduling
3. Handovers w/ Low-Latency LTM



# Devices: Notable Shift Among Consumers

Novel consumer devices are entering the market and enjoying a notable uptake



## AI Glasses & AI Devices



## AR Glasses



*“Hey Meta, tell me all about [...] you see.*

**Live conversation** using GenAI in the cloud, with voice & image/video in uplink; voice only in downlink.

*“Hey Meta, visually navigate me to [...]”.*

**Personalized AI Agent** using GenAI in the cloud, with voice & image/video in uplink; video in downlink.

Images & video are shown for educational purpose only, © is with Meta, [Smart Voice Studio](#), [Meta](#) and [Nathie](#).

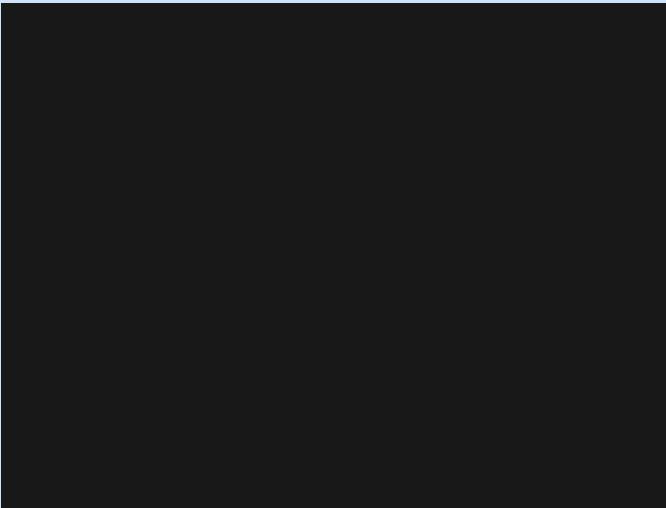
Camerabuds is a [rumored product by Meta](#) & io has been [acquired by OpenAI](#).  
[Smartglasses, SDKs & Controllers](#) by Oscar Falmer - Last Update: Sept 22, 2025 - Google Drive.

# Applications: Renaissance Of App Creation

Volumetric experiences can be created at scale using AI



Real-time placement of assets:



© Gracia.AI (Jonathan Tiedtke)  
([LinkedIn 2024](#))

Replacing entire environments:



© Kai Christmann  
([LinkedIn 2024](#))

AI-generated experiences:



© M. Aghadi and C. Dashu  
([X/Twitter 2025](#))

*XR App Growth 2023>2024: AR apps 20k->30k; VR 400->10k; 3D Scans 5M->10M*

# Call For Action

## Unique Value Creation Window

### 5G/6G Network Design

↗ High Performance

🎛 Differentiated Connectivity

⬇ Lower Energy Consumption

### Emerging Enablers

#### AI

Better efficiency & new business opportunities

#### API

Monetization, innovation and scale

#### AR

New use-case with societal benefits

