



AUGMENTING
HUMAN
INTELLIGENCE

AjnaLens

BY DIMENSION NXG PVT. LTD.

**Unleashing the power of
AR/VR technology for Skill
Development using 5G**

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Problem Statement

- With a population of over 140 Crore people, 90 Crore of whom are under the age of 35. We are the youngest country in the World.
- More than 20 Crore are unemployed. (*Source: Statista*)
- Despite the fact that India currently has over 10 Crore job openings, we lack the necessary skill sets to fill them.
- We attempt to bridge this gap by enabling everyone across the globe to upskill using advanced AR/VR technology combined with powerful 5G networking.



AjnaXR Headset



Headset specifically designed for Learning & Development

- Phygital guided training at half cost & one fourth of time
- Immersive experience & engagement
- Pedagogy is Learn by Doing
- Scale training possible without expert trainer
- Real time feedback and analytics for corrective actions
- Personalized and unique training experience at own pace
- Zero wastage of material & zero carbon footprint

AjnaVidya Platform



A library of certified AR VR Trainings

Upskilling at Grassroot

AjnaXR Station

Industry's most scalable XR training simulator



Welding & Painting tools



AjnaLens Glasses

Vocational Training Centers in India

Started with

1 State - Karnataka

Now Implementing in More States

Tamil Nadu

Bihar

Madhya Pradesh

Uttar Pradesh

Assam



**18,000 trained
1 Lakh in 2023
10 Lakh upto 2026**

Ajna Devices

Augment Human Intelligence

Ajna Mission

Transforming human lives
by building a skill-first
world with equal economic
opportunities



Upskilling at Enterprises



Training employees for mining on safety and how to use Jumbo drill machine

Traditional - Watch on TV and learn

Learning process is **Passive, Slow, Boring**

No of Incidents **5 per months**

Multiple no of **Job mistakes**

Knowledge has more **Transfer gaps**

Videos are **Generic**

AjnaVidya - Learn by Doing in VR

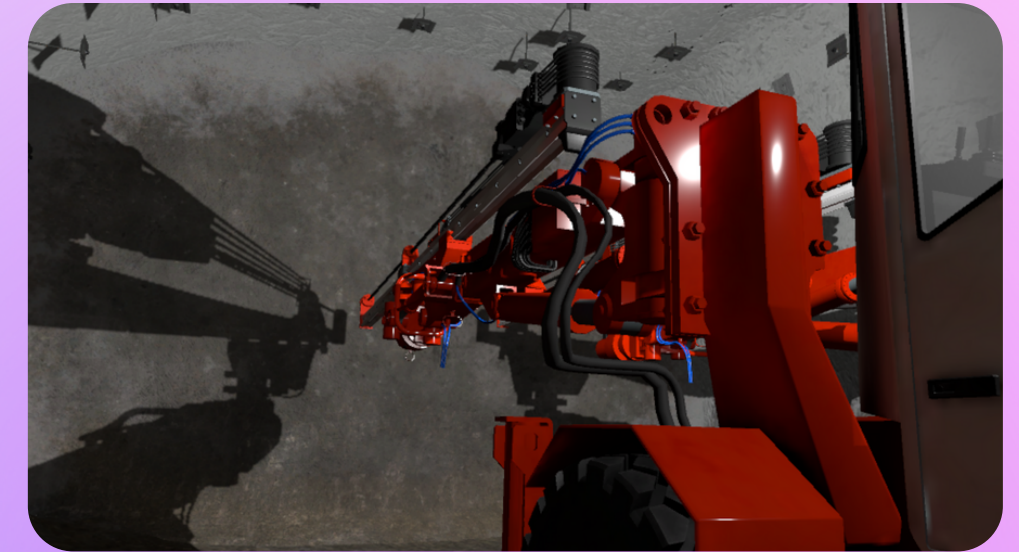
Learning process is **80% faster**

No of Incidents **2 per months**

Reduction in mistakes **50%**

Knowledge has improved to **60% better transfer**

Doing digital twin of **Actual mining**



Upskilling at Enterprises



Frontline worker training on Camshaft and gearbox assembly

Traditional - Classroom based training

Training process is **Mass Generic**

Videos and Animation based **Literature**

Prerequisites are based on **Theories**

Individual evaluation is **Not Practical**

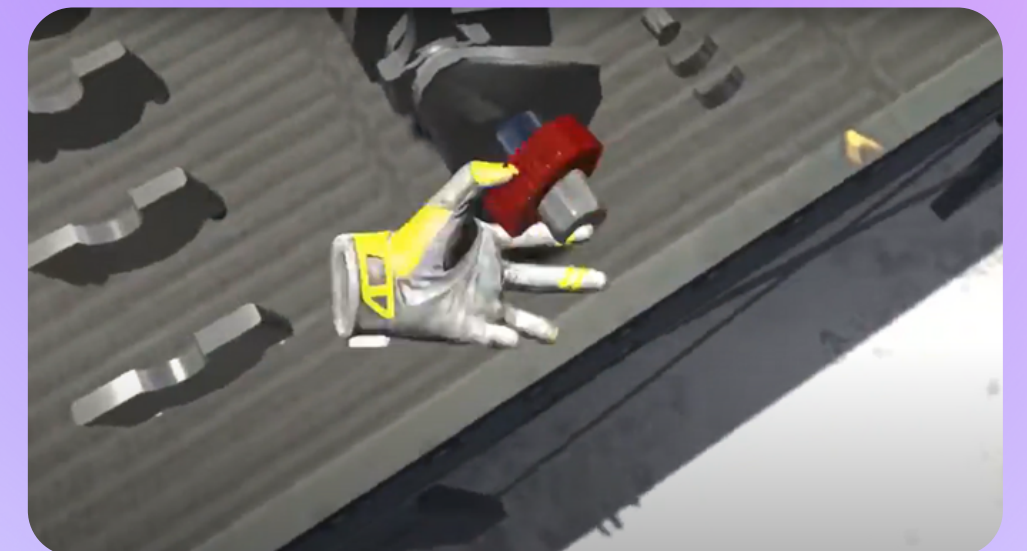
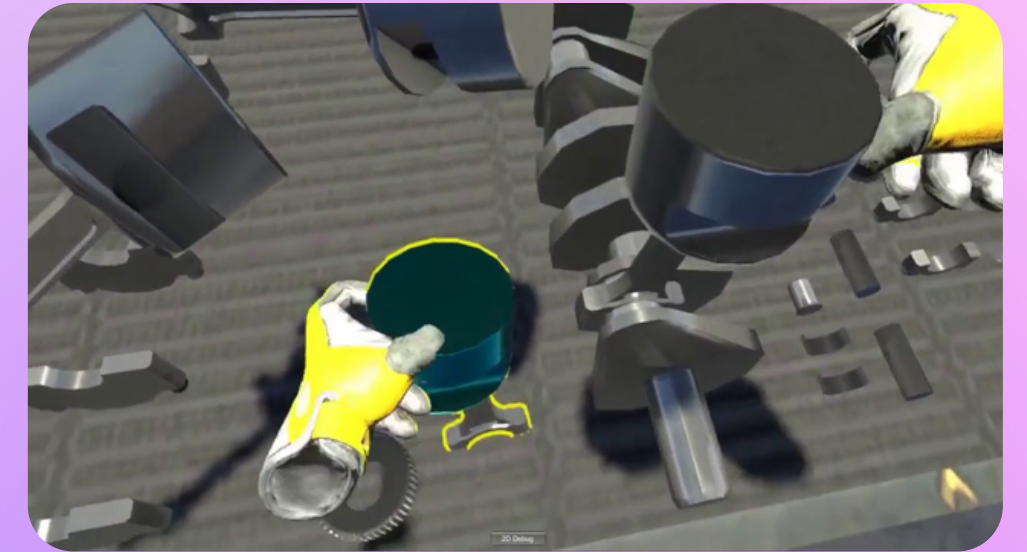
AjnaVidya - Learn by doing in VR

Personalized **Individual Training**

Immersive guidance with **mm level of accuracy**

Prerequisites are **Hands on & Immersive**

Individual **Evaluation & Analytics**



Upskilling/Upgrading at Defence



Training on equipments, arms & ammunitions



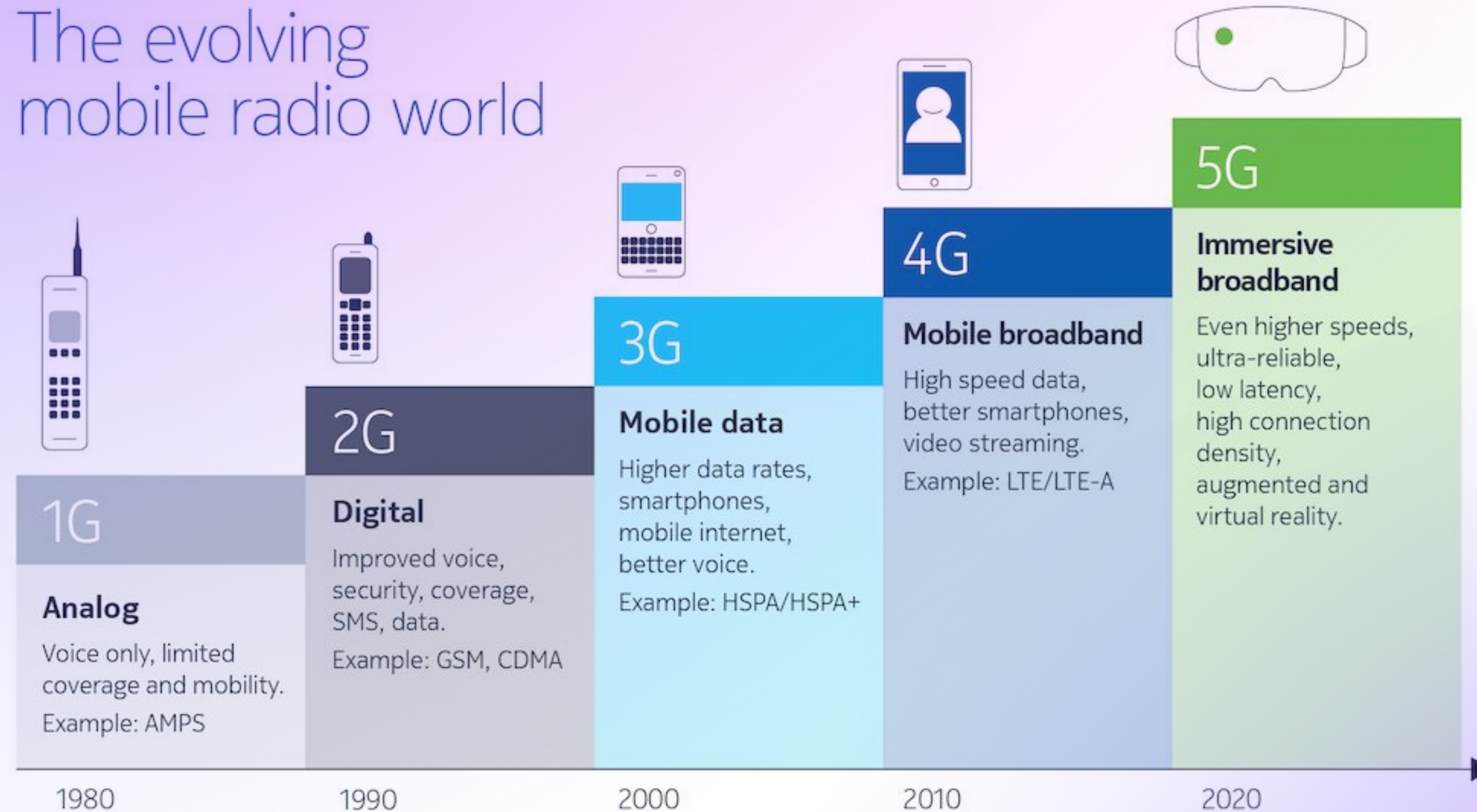
Remote Assistance and maintenance

Role of 5G in Augmenting AR/VR capabilities

What is such thing you cannot do on phones with existing 4G?

So, The new 5G is for XR (VR/AR/MR) to do something you cannot do on your phones even with 5G

The evolving
mobile radio world



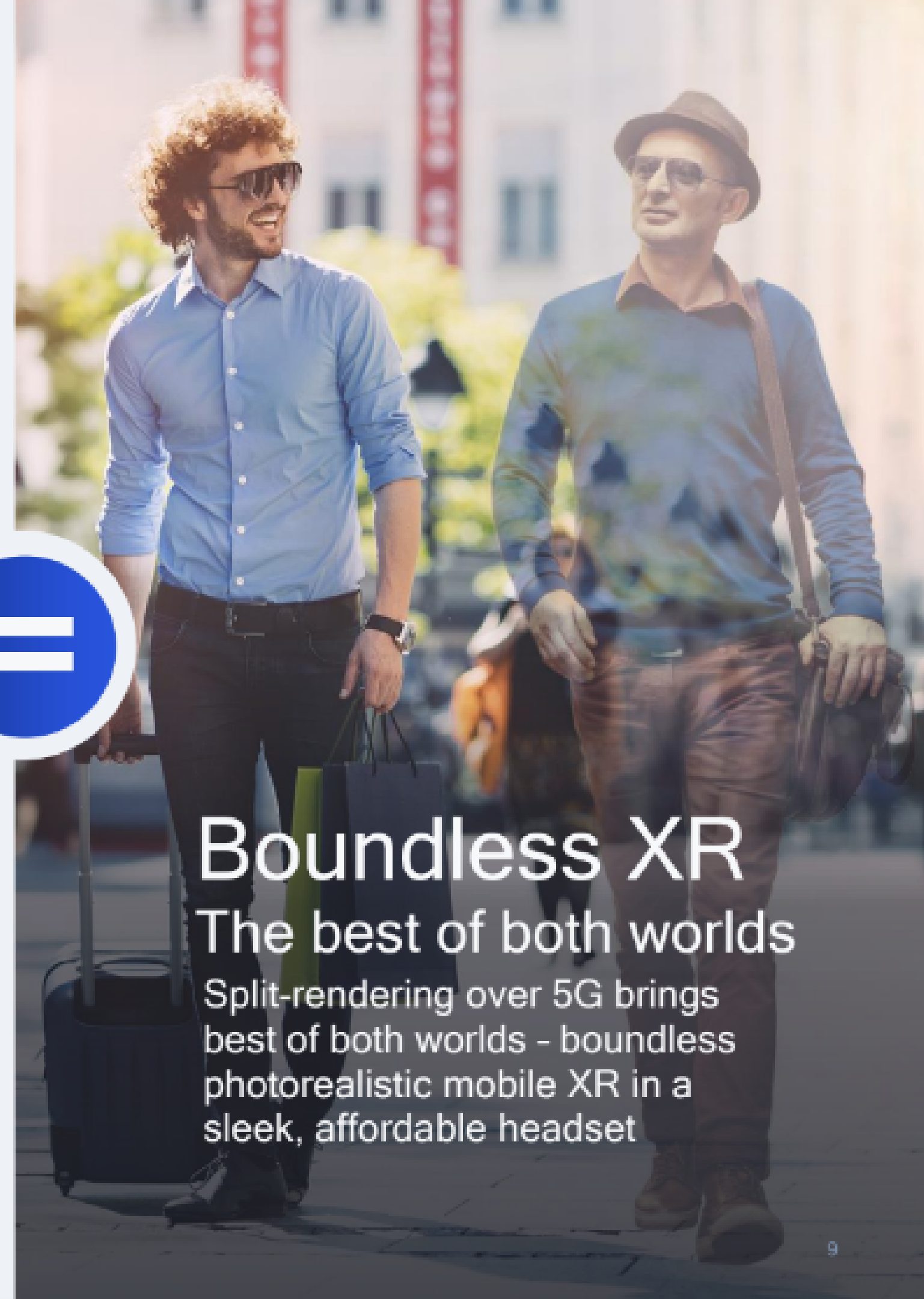
Mobile XR

- Reliable, anywhere anytime usage
- Ease of use with no setup
- Battery powered sleek, ultra-light design
- Leverages mobile ecosystem scale



PC-tethered XR

- Not limited by power and thermal constraints
- Expensive and niche for high-end experiences
- Wires limit intuitive actions and immersion
- Usage limited to a fixed location

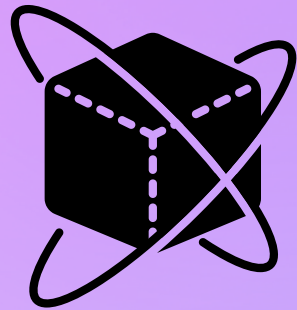


Boundless XR

The best of both worlds

Split-rendering over 5G brings best of both worlds - boundless photorealistic mobile XR in a sleek, affordable headset

Use of 5G in XR



AR/VR Current Requirements

- Increased speed & wireless capacity
- Made Integrable & Interoperable with other devices
- High Speed and Ultra low latency
- Superior network reliability to stream immersive experience & high fidelity content
- Unrestricted mobility with no wired connections
- Multi User capability
- Enhanced on-device edge capability

5G works as a Bridge to different problems faced in AR/VR



5G 

5G as solution

- Reduce throughput requirements & buffering requirements
- Ease in handling interactive content like tactile feedback & 6DOF
- Photorealistic graphics & visuals
- Consistent throughput with uniform experience
- Increased security, privacy & reliability with edge based computing

Transforming AjnaXR Headset to Regular Wearable using 5G- XR Devices Evolution

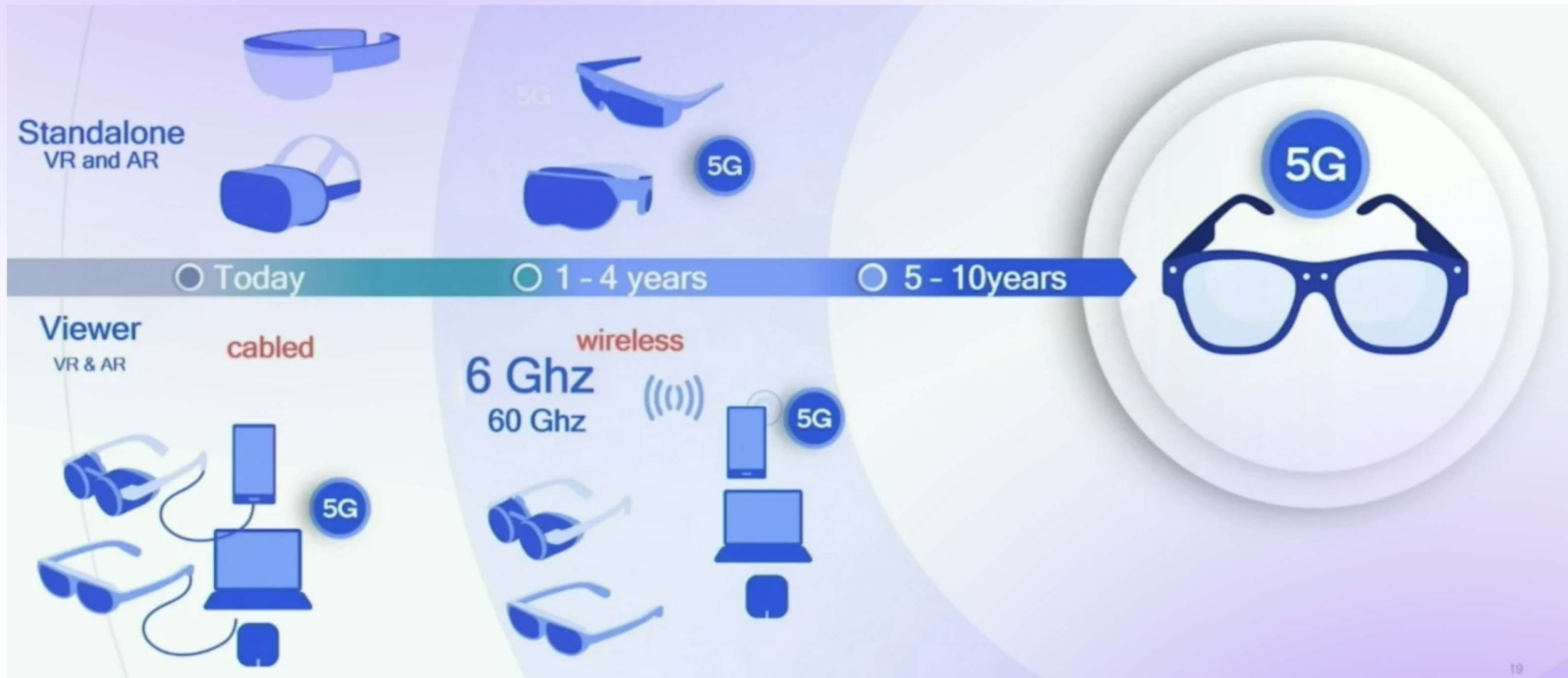


Image Source : Qualcomm

Ease of Living with 5G - The Future of AjnaVidya Platform

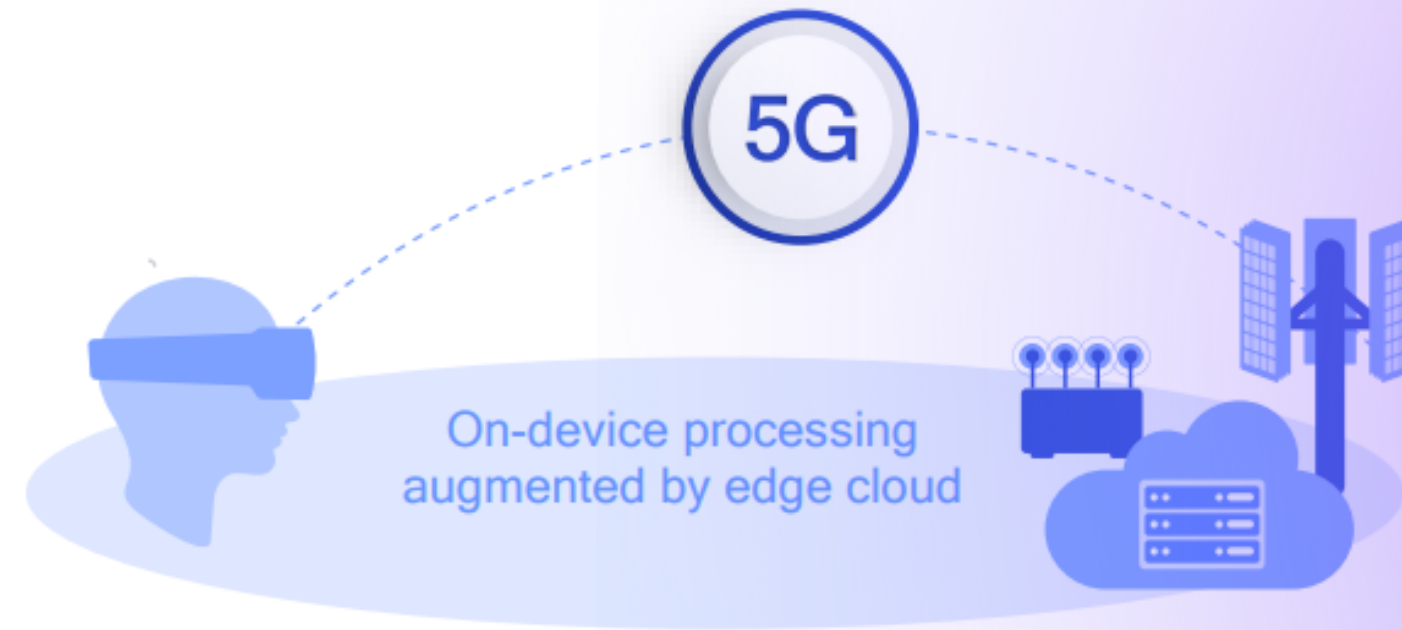
Boundless mobile XR – the best possible XR anywhere



On-device processing,
access to rich content

Premium XR anywhere

Efficient on-device processing to
deliver immersive XR
Utilize connectivity for less
time-sensitive content and downloads
We are doing this today



On-device processing
augmented by edge cloud

Photorealistic graphics and visuals

Enhanced experience where possible with
new split-rendering architecture
On-device processing augmented by compute
located at cloud edge over 5G connectivity

Future of XR with 5G



Minimally Invasive Surgery



Remote Repair, Maintenance & Assistance



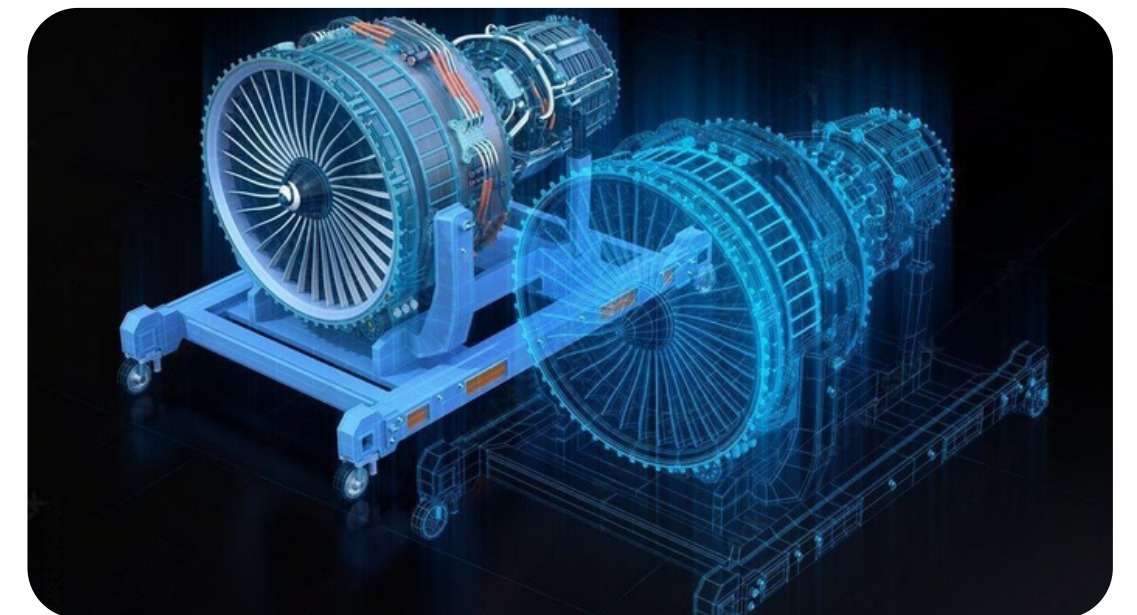
Telemedicine for Healthcare Services



Robotic Surgery



Remote Realtime Driver Training



Digital Twin

Note: Images are for illustration purposes only and are owned by their respective owners

India & World are Recognizing the effort we all are taking in advancing the technology with 5G being the future



Exhibiting XR and 5G Use Case to Hon'ble PM Shri Narendra Modiji at IMC



Awarded with Most Innovative Enterprise 5G Use Case deployed at IMC 2022



Received Innovation Award for AjnaXR at World's Most Influential Tech Event, CES 2023



Received Business Transformation Award for Employment Generation 2022



Namskaram