

Challenge

XPANCEO

Mainframe
Computers

'Mini'
Computers

Personal
Computers

Laptops

Personal Digital
Assistants

Smartphones

What's next?

1960s

1970s

1980s

1990s

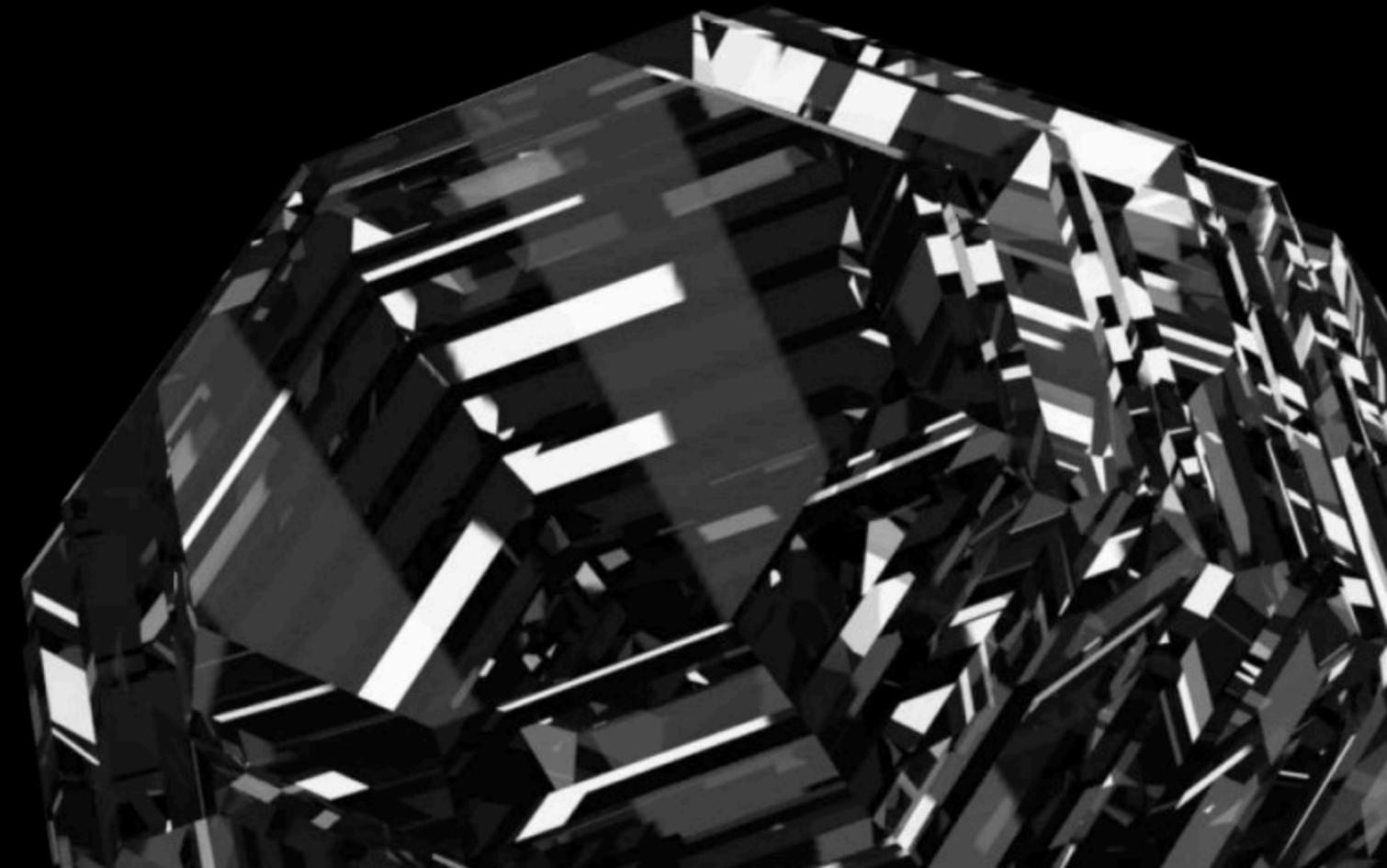
2000s

2010s

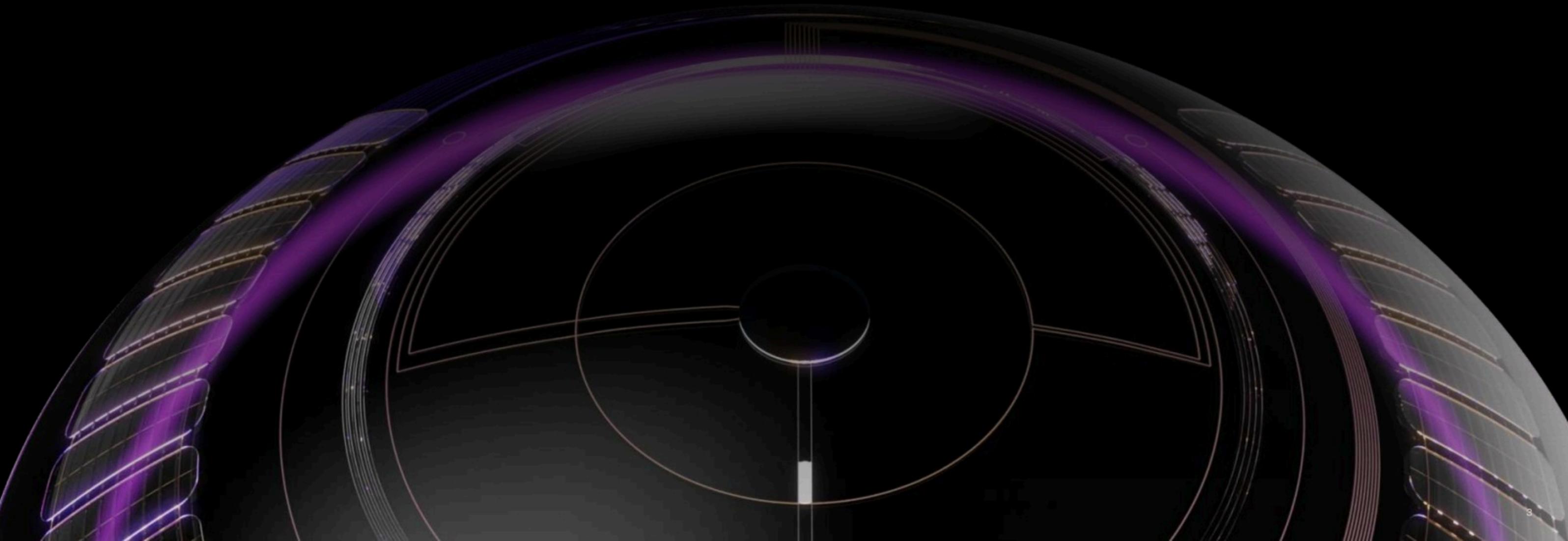
2020s

Augmented Reality

The key stumbling block for the augmented reality technology cycle to come is subpar gadgets (glasses, helmets, and others).



The next generation of computing via an invisible and weightless **Smart Contact Lens** that is as natural to the wearer as their own vision



Smart Contact Lens

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Display

Building ultra-compact integrated projector with 100% FOV to bring AR mainstream.

Solar Cells

Data & Power Antenna

Batteries

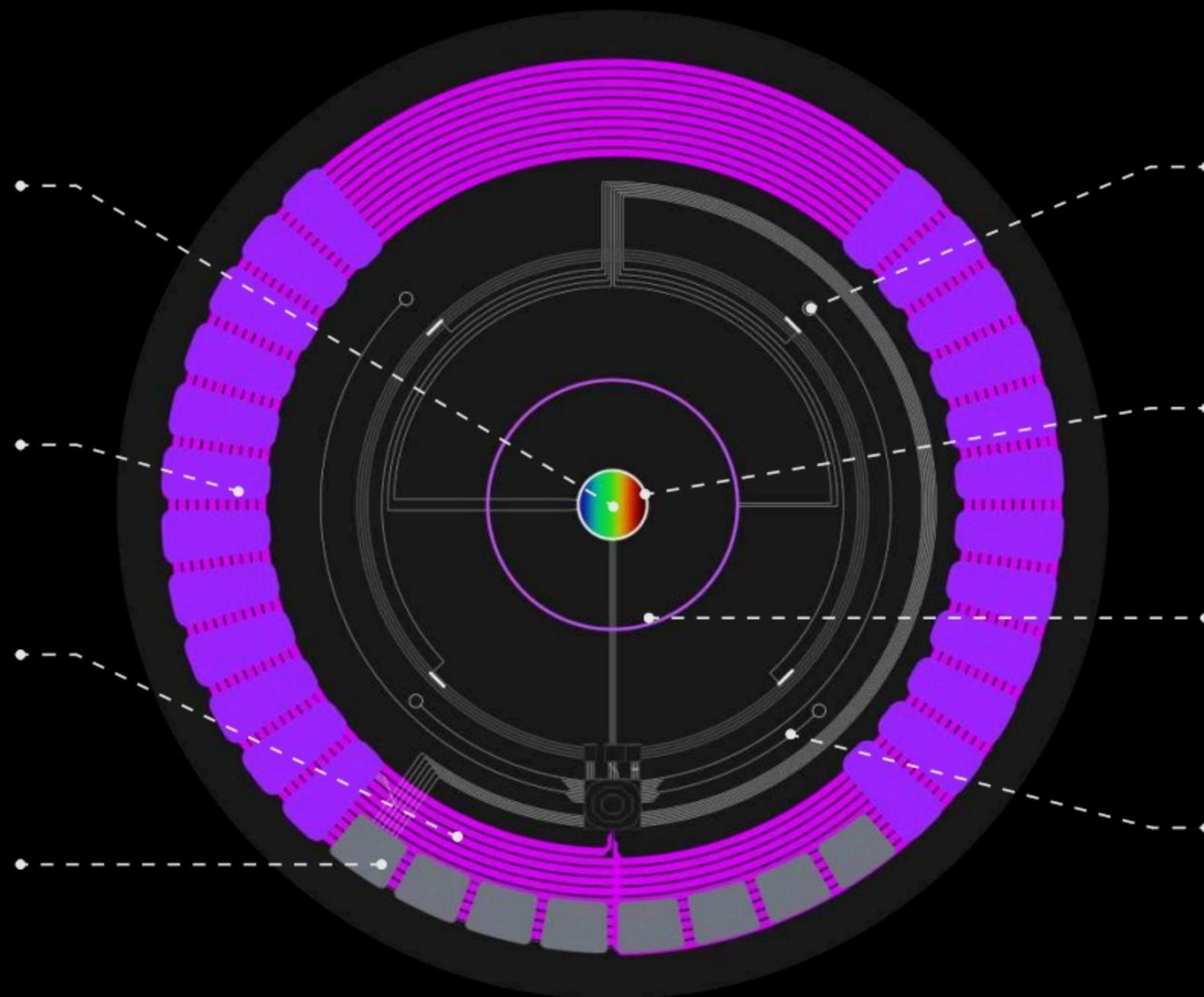
Biosensors

Unique positioning on the eyes and tears gives unseen amounts of data.

Camera

Adaptive Prescription Lens

Neural Interface



The best device is no device

- | Invisible, weightless, and private. As natural and convenient as your own eyes.
- | The only gadget with an unlimited field of view.
- | One infinite screen that merges all gadgets into one.

Care for people and the planet

- | Demands much less plastic and other unsustainable materials.
- | Advanced real-time health monitoring and comprehensive AI-driven practical recommendations.
- | Significantly reduces screen time and improves human interaction through restoring eye contact.

Your new superpowers

- | Super Vision: night vision and zoom.
- | Control and communicate with ease through intuitive gaze commands.
- | Ultimate access to all the apps and data seamlessly blended into an infinite eXtended Reality experience.

B2C: Use Cases

What can you do with it?

Use the software and all apps in a single interface: display all the screens you need (smartphone, laptop, tablet, TV, etc.) in augmented reality, enlarge to the size you wish, place them around you **wherever you like**, watch this presentation or a Youtube video, check your notifications, and texts in messengers.

- All at the same time.
- Without loads of devices and chargers.
- While on a walk.
- No limits.

You also get:



SuperVision: zoom, infrared, night vision.



Seamless AR assistance in navigation and shopping.



Widgets & apps pinned around your habitat.



Shared gaming reality with varied perspectives.



Health monitoring and well-being centre.



Instagram reality filters.



Unlimited field of view for watching content.



Full virtual reality with your eyes closed.

B2B: Industries

Given the **unique** form factor of the contact lens, the product may be relevant in:

Fintech & Access Control

By adopting the power of biometric authentication, this innovation enables simple and secure payments, access to banking services, and ATM transactions without requiring any supplementary actions or items, just a glance.

Automotive & Navigation

Crafted with the intention to enable trained professionals such as pilots or drivers to utilize AR technology. With its ability to provide up-to-the-minute data and insights, the technology can significantly enhance safety and efficacy.

5G adoption

The convenience of the experience will finally boost AR adoption outdoors, creating a strong need for extreme 5G and 6G performance.

Industry & Manufacturing

A deep tech company presents an innovative solution that enables manufacturers to simultaneously access manual processes and automated data without any need to wear a device on their head or occupy their hands.

Sport & Healthcare

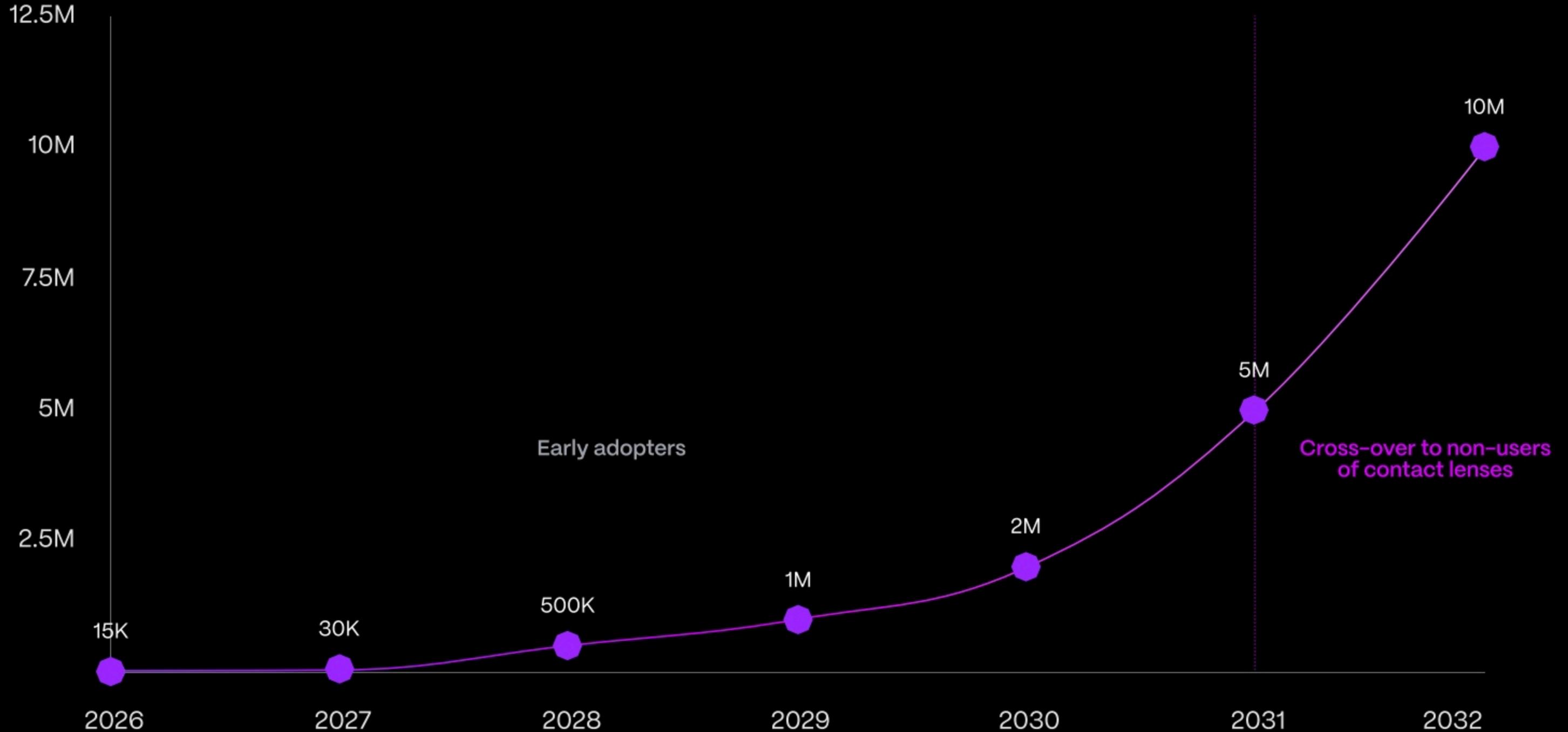
Providing an exceptional tool for training and learning new skills in a multitude of situations and environments. With the ability to accurately depict and simulate various scenarios, it can be instrumental in improving healthcare services.

Retail & e-commerce

eXtended Reality and personalized experiences integrated seamlessly, allow for truly instant purchases, virtual try-ons, and real-time promotions shared directly through the lenses, enhancing the overall shopping journey.

Number of users by 2033

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Contact Lens Users by 2033

Share of lens users by main regions:



USA

An estimated **49 million people** in the U.S. will wear contact lenses¹.



South Korea

24% of the population, or **12 million people**², will wear contact lenses.



United Kingdom

Contact lenses will be worn by an estimated **4.4 million users**³.



Germany

In Germany, the number of contact lens wearers will be around **3.5 million**⁴.

Worldwide Contact Lens Users

> **250M**⁵

Volume of the Contact Lens Segment (units per year)

> **10B**⁶

¹Source: we took the current proportion of lens wearers in the USA region up to 2022, based on the research, and projected it on the forecast of the population in that region in 2030, based on the research.
²Source: We take the current proportion of lens wearers in the South Korea up to 2022, based on the research, and projected it on the forecast of the population in that region in 2030, based on the research.
³Source: We take the current proportion of lens wearers in the UK region up to 2022, based on the research, and projected it on the forecast of the population in that region in 2030, based on the research.
⁴Source: We take the current proportion of lens wearers in the Germany up to 2022, based on the research, and projected it on the forecast of the population in that region in 2030, based on the research.
⁵Source: according to the data published by BioMed Central Ltd., in 2021.
⁶Source: according to Statista.

Market Size

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Augmented Reality market:



CAGR 41% until 2030

\$750B²

Potential TAM for the combined market of medical, well-being, super vision and holographic applications.

How do we make money?

- Selling devices.
- Advertisement.
- Commissions from third-party products: apps and content.
- Infrastructure, warranty, maintenance, repairs.
- Financial products, services and payment systems.

¹Source: <https://www.imarogroup.com/extended-reality-market>

²Source: XPANCEO's estimation based on Grand View Research, Inc. (trusted by Bloomberg)

Huge margin offsets R&D efforts

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Cost of $\$50^1 \times 12 + \$300 = \$900$:

- 400x less materials than a smartphone.
- 10x less manufacturing costs.

MSRP² of \$1500:

- Same as excellent CL for 1 year.
- + \$100/year app commission revenue.
- + \$1800/year ad revenue (AR on surfaces).

Revenue Forecast



¹Cost estimate for tens of millions of lenses per year.

²Manufacturer's suggested retail price (MSRP) is the price that the maker of a product recommends for it in customer-facing retail stores.

Competition

Mojo Vision

Raised \$204M, tested the complete prototype lens on a real person. Attracted investors such as PTC, NASA, Amazon Fund. Pivoted to microLED in 2022.

InWith Corp.

InWith is a company working on an electronic soft contact lens platform designed for the masses to wear comfortably, enabling an easy transition from the real world to the Metaverse.

Innovega Inc.

Innovega is the creator of smart contact lenses and glasses — iOptik® — that work together to deliver high-performance AR/VR experiences.

SmartLens / Sensimed

Medical startups that are working on addressing the biggest challenges in glaucoma management via smart lenses.

Why not AR glasses:



Bulky and uncomfortable.



Awkward and uncool: a geek toy on your head.



Get dirty. Fingerprinted. Fogged up.



Restrict the wearer's peripheral vision.



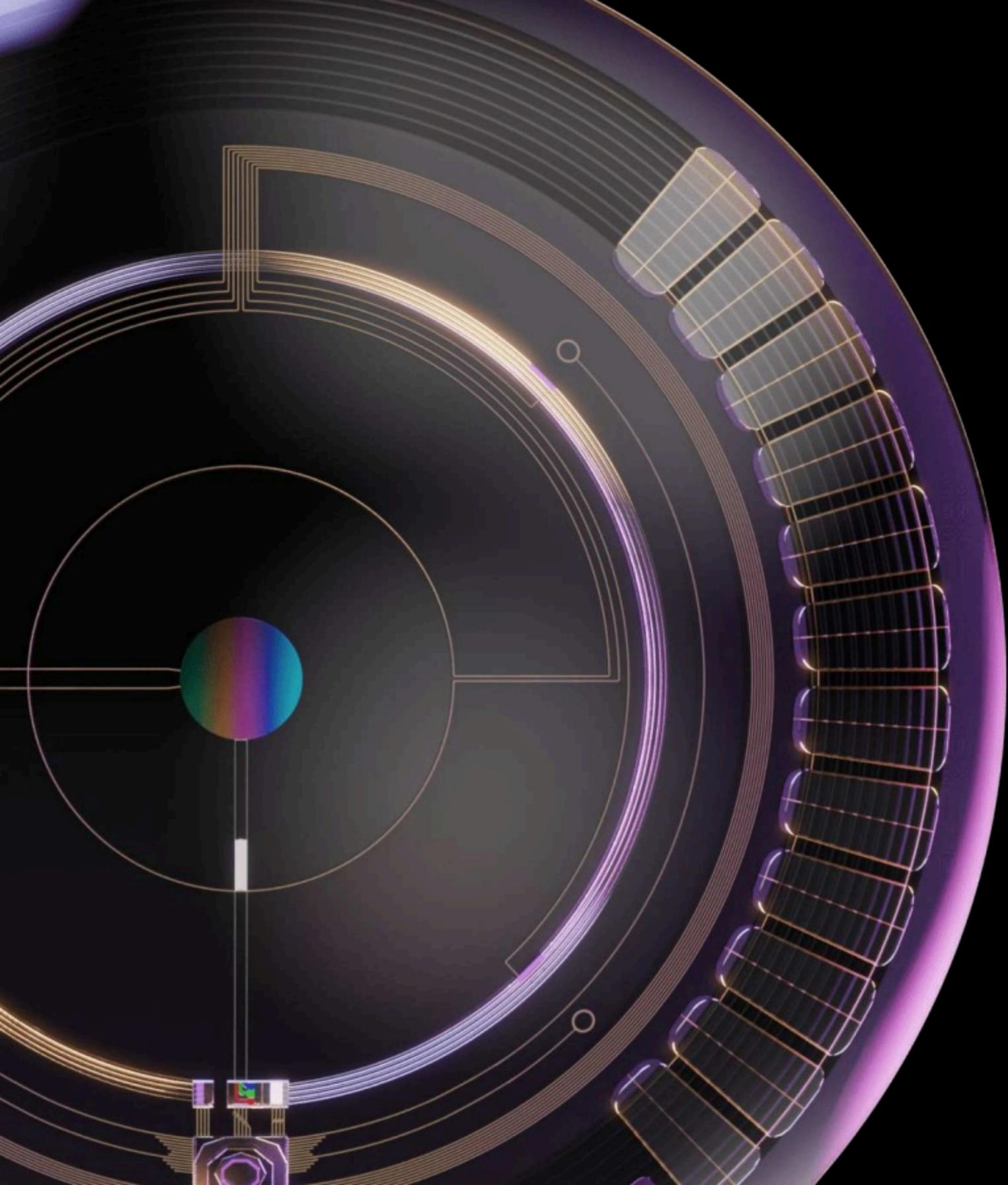
Yet another device?



Distracting others in the user's vicinity.

What is XPANCEO?

XPANCEO



XPANCEO — a deep tech company developing the next generation of computing.

**Advanced
Optics & Photonics**

**Artificial
Intelligence**

**Novel
Materials**

**Neural
Interfacing**

20+ patent-pending technologies

Novel Materials

Novel materials with the highest anisotropy and refractive index

Giant optical anisotropy in transition metal dichalcogenides for next-generation photonics

[Nature Communications 12, 854](#)

Lens Charging

Perovskites replacing silicon in solar generation

Giant and Tunable Excitonic Optical Anisotropy in Single-Crystal Halide Perovskites

[Nano Letters 23 \(7\), 2570–2577](#)

Perovskite-laden solar cells: daytime in-use charging

Night Vision

Tunable optical properties of transition metal dichalcogenide nanoparticles synthesized by femtosecond laser ablation and fragmentation

[Journal of Materials Chemistry C 11 \(10\), 3493–3503](#)

Transition metal dichalcogenide nanospheres for high-refractive-index nanophotonics and biomedical theranostics

[National Academy of Sciences 119 \(39\), e2208830119](#)

2D materials for SCL

Zero thickness with high diffraction efficiency

Topological phase singularities in atomically thin high-refractive-index materials

[Nature communications 13 \(1\), 2049](#)

Ultimate sensitivity by topological effects

Technologies