

LIMINAL DISCOVERIES FROM MWC 2023



Liminal Discoveries in digital technologies happen during a transitional phase, challenging skills and leading to growth.

They can be transformative, crucial for keeping up with advancements and making the most of new opportunities.

It is in this space *Liminal Discovery* operates.

This is where we track trends.

Turtle from "The Image Finder LTD" booth at the 4YFN exhibition.
The Image Finder is a metaphor-based image search platform.

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KEY TREND

CONVERGING TECHNOLOGIES

This year MWC displayed a range of services and products based on converging technologies.

Converging Technologies create opportunities as the underlying technology stack evolves exponentially and is truly innovative as it enables the development of novel services and products.

As expected, AI was the star of the show, setting the stage for a future of limitless possibilities.

The previously hyped Metaverse may have faded into the background, but that only served to highlight the myriad of other exciting technologies on display.

OUR FIVE FOCUS AREAS

To keep up with the rapid pace of innovation, we narrowed our focus to five areas:

- **AI and Robotics**
- **IOT**
- **XR**
- **Digital Health**
- **Sustainability**

Each of these topics brought its own unique insights and breakthroughs, leaving us inspired and energized about the future of technology.



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AI AND ROBOTICS

AI and Robotics is a no brainer when it comes to converging technologies for anyone remotely familiar with the sci-fi genre.

Moving from experimentation to practical use, this is a space to watch in the years to come.

With commercial Robo Dogs such as inspection robots, guide "dogs" for the visually impaired, and for transportation of items in challenging terrain, the Robo Dogs particularly stood out during MWC .

Combined with the advancements of both technologies, AI-driven robots have taken a step, out of the labs and factories, into the world.

With easier training and self-learning AI removes the need to program robots for every possible scenario, and instead let them be trained by users, or learn from experience.

Although not new to the world, the number of commercially ready products was impressive.

IOT

The Internet of Things (IoT) remains at the centre of digital transformation, with converging technologies creating exciting opportunities and fulfilling past promises.

Enablers of Industrial IoT networks (IIOT) , such as 5G networks, Wi-Fi 6, cloud computing, edge computing, and AI, are driving production and supply chain efficiencies, offering real-time planning opportunities and safety measures.

The speed and sophistication of implementing IOT networks will be a key competitive advantage in any industry and should be a focus of any enterprise in the years to come.

Wi-Fi 6 (and Wi-Fi 7) stood out this year as a key technology option for IIOT networks, highlighting its significance alongside 5G mobile networks.

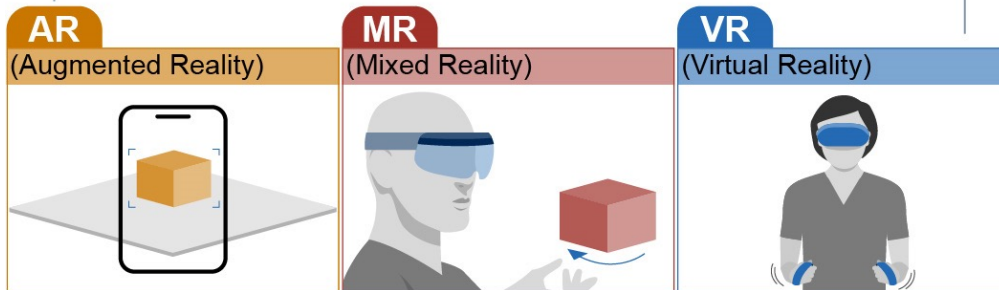
On a related note, MWC seems to have lost its attractiveness for the consumer electronics industry, with only one connected toothbrush spotted.

Will this be a lasting shift of focus towards larger industries and back to being a conference for Telcos and their direct providers?



XR (Extended Reality)

Collective term applied to immersive experiences incorporating varying degrees of digital and real information



User views static digital information or visual elements integrated into the real environment

User interacts with responsive virtual elements integrated into the real environment

User is immersed in an interactive, digitally-generated environment

Source: GAO. | GAO-22-105541

XR

Extended Reality (XR), encompassing Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR), has replaced the hype around the Metaverse.

What once was considered a futuristic concept is now a commercial reality with more products and services being developed for practical applications.

With XR, businesses can now create more immersive experiences that bridge the gap between the physical and virtual worlds. This was demonstrated by a wide range of practical applications for XR, from enhancing customer engagement to improving employee training.

The rise of XR demonstrates a shift from hype to pragmatism and commercial realism.

Companies are now investing in XR technologies that have tangible benefits, rather than pursuing visionary concepts that are still far from practical application.

Digital Health

Digital Health exploded at 4YFN, with specialised AI-driven services targeting specific health conditions or diagnostics. The future of healthcare is clearly digital, with incredible potential once these technologies find their way into general healthcare systems.

From diagnosing Parkinson's through speech analysis to analysing sweat and improving brain scanning, the possibilities for digital healthcare are endless. Digital healthcare providers with systems integrating personal health sensors and providing support for various neurological disorders or challenges were also on display.

The use of narrow AI, combined with sensors and remote access to healthcare providers, will transform healthcare, making it more readily available for all. With improved preventive care, early detection, and faster medical interventions, we may need to revisit our view of what healthcare is in the years to come.

In summary, Digital Health was a highlight at 4YFN, demonstrating the incredible potential of AI and sensors in transforming healthcare. With improved access and early detection, the future of healthcare is digital and exciting.



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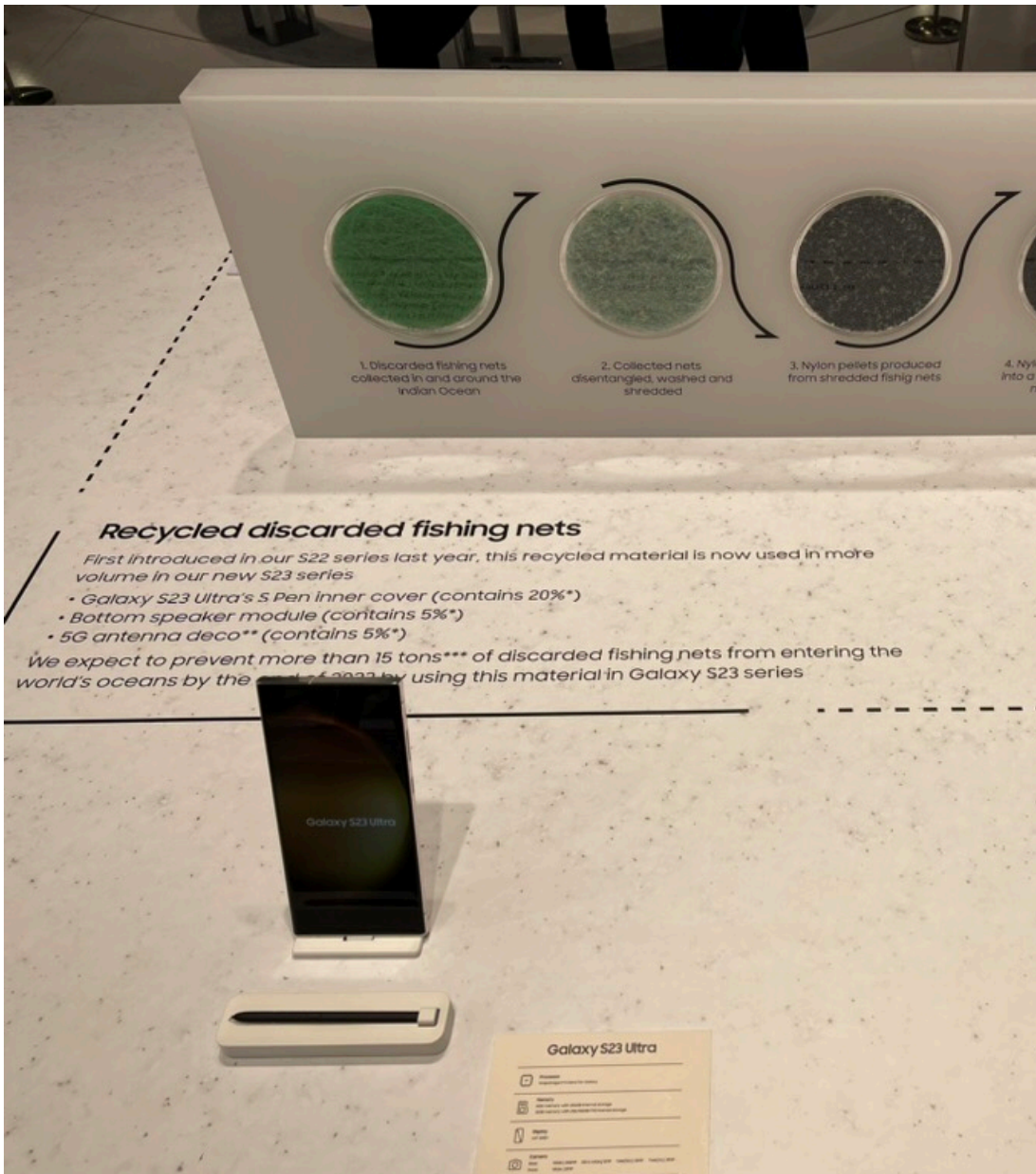
SUSTAINABILITY

Sustainability was a central theme at MWC, reflecting its growing importance worldwide. However, it is interesting to note that many companies have a narrow focus on sustainability, often limited to reducing carbon footprints. While initiatives such as sustainable mobile networks and blockchain-based carbon tracking were present at MWC, few targeted broader sustainability challenges like education, public governance, or equitable resource-sharing.

Despite this, there were some intriguing examples present, such as the concept of allocating financial power to plants through an AI/DLT platform, enabling them to “purchase” necessary resources. Another standout was Samsung’s Galaxy 23 Ultra, which incorporates upcycled fishnets to reduce plastic waste and keep oceans cleaner.

Overall, sustainability remains a topic where only the surface has been scratched, with many businesses needing a better understanding of the opportunities to contribute.

The potential rewards are substantial: by 2050, the sustainable economy could be worth over 10 trillion USD according to estimates by Arup and Oxford Economics. Financial incentives are waiting for those who can capture them.



AND SOME RANDOM OBSERVATIONS




META WAS THERE

Maybe in a slight smaller format than the year Mark Zuckerberg was a keynote speaker.

In a way, their stand in the upper hallway, far from the crowd and attention, could serve as a metaphor for how AI took over the limelight and placed Metaverse in the shadows.





Network on the Moon

NOKIA TO NEW HIGHTS

NOKIA was of course there, rebranding in an effort to be more than a brand on mobile phones.

And how about making that statement clearer than by demonstrating how they take Networks to the moon?

Now we can all relax when planning our next space trip, resting assured we can post those images on Instagram from the moon.

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6G

With 5G still being rolled out and fully leveraged, there is nothing as good as dreaming of the future.

6G started to appear at MWC, and just as with 5G before it the definitions of what it is remains to be set, but the race to define a standard has started.

We will hear more about this in the coming years for sure, and just as with 5G, and all the other G's before it, we will hear how the world will change and wonder how we could live without it.

For now the potentials of even faster networks, with ultralow latency, was showcased by a Japanese tee ceremony performed by a robot controlled in real-time by a human standing right next to it.

It is of course easy make jokes about promoting technologies still not fully defined, but just as previous generations of networks has enabled new services and progress, so will 6G for sure.

The world of mobile remains a world of dreams and opportunities.

A photograph of a modern building entrance with a large blue banner that reads "VELOCITY UNLEASHING TOMORROW'S TECHNOLOGY - TODAY". To the right is a white cylindrical stand with the slogan "everything works better together" and images of a smartphone, headphones, a laptop, and the Android robot. People are walking in the foreground.

VELOCITY
UNLEASHING TOMORROW'S TECHNOLOGY - TODAY

**WANT TO HEAR
MORE?**

These were our general observations, but MWC offered so much more and with detailed insights. If you want to hear more in general, or understand what was presented related to your business or industry, please reach out and we are happy to speak with you or arrange for a presentation for you and your team.

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