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European Association of Extended Reality



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The official newsletter of EuroXR Association



A WARM GOODBYE TO DR. FREDERICK P. BROOKS, JR.



From EuroXR Association we would like to give a warm goodbye to **Dr. Frederick P. Brooks, Jr.**

Many of you might already know that Fred Brooks passed the away on November 17, 2022.

We lost a giant in the field of computer science and a tremendous inspiration for many.

A **multi-award-winning, software engineer, and computer science expert** that will certainly leave a void in his research community, family, and friends.

His book "**The Mythical Man-Month: Essays on Software Engineering**" is, among other works, one of the legacies that will keep inspiring many along the years.



"THE METAVERSE MEETS THE FUTURE OF WORK"

EUROXR OPEN FORUM AT THE IMMERSIVE TECH WEEK

Director of Science at TNO ICT **Omar Aziz Niamut** was the guest Speaker in EuroXR Open Forum as part of the Immersive Tech Week (ITW), an hybrid session chaired by professor **Gabriel Zachmann** and senior researcher **Patrick Bourdot**.

An enriching discussion on the topic "**The Metaverse Meets The Future of Work**" that concluded with the following statements:

- What happens in the metaverse does not stay in the metaverse.
- We are heading towards zero distance economy.
- We will see the emergence of reality agnosies.
- We need Europe to play a role in the enterprise metaverse.



Omar Aziz Niamut

Director of Science at TNO
ICT

Watch the whole session

BECOME A MEMBER

A new era of communication is affecting all aspects of our daily life. New Wi-Fi technology developments are emerging rapidly and surely pushing us as individuals, as countries, and as industries representatives to move towards achieving the best way to become competitive.

The economy, social communications, and the way we produce are some of the aspects consistently affected by the fast development of new technologies applied to Wi-Fi technology and communication.

Europe's competitiveness is significantly influenced as whole when it comes to any technologic development in the world. On this ground, it was an urge to develop the generation of free of licence use of the upper 6ghz band to allow industries to achieve the maximum benefit out of the next Wi-fi generation.



Brussels, 18 November 2022

ENSURING THE UPPER 6 GHz SPECTRUM IS MADE AVAILABLE FOR NEW GENERATION WI-FI:
MAJOR STEP TOWARDS THE ACCOMPLISHMENT OF THE EU'S DIGITAL DECADE CONNECTIVITY
OBJECTIVES

Dear National Regulatory Agencies,
Dear Members of the European Commission,
Dear Ambassador,
Dear Members of the European Parliament,

file, the signatories, representing a broad coalition (including industry associations, equipment manufacturers, chipset vendors, fiber operators, and content application services, entertainment, and remote applications based on Virtual Reality, Augmented Reality, Mixed Reality technologies, also called eXtended Reality), convinced of the power of 5G-6G in conjunction with fibre, and satellite technology to support Europe's digital connectivity objectives, welcome the European Commission's commitment in establishing an EU common position ahead of the World Radiocommunication Conference 2023 (WRC 23).¹

This conference, which will be held in Dubai from 20 November to 15 December 2023, represents a crucial point of decision for the digital future of Europe as members of the International Telecommunication Union (ITU) will review, and if necessary, revise, the Radio Regulations, the International Treaty governing – among other things – also the use of the radio-spectrum.

In our opinion, the current use of spectrum and the efforts to harmonise its technical conditions deserve the full attention of the EU policymakers. In particular, WRG-23 will consider whether to designate the 6.425-7.125 GHz frequency band "upper 6 GHz band" for International Mobile Telecommunications (IMT).³ As described below, the upper 6 GHz band is uniquely suited to deliver Wi-Fi connectivity and the WRG-23 decision will have significant implications for European consumers and businesses.

In fact, over the next decade, the need for high-performance Wi-Fi connectivity will grow rapidly.³ Without fast and reliable Wi-Fi, the fibre-based Very High Capacity Networks (VHCN) that are being rolled out all across Europe risk not being efficient as the “in-building connectivity” will not follow. This scenario will seriously impact business-to-business (B2B) and business-to-consumer (B2C) digital usage as today the majority of end-user traffic goes over Wi-Fi.

¹ For more information about the World Radiocommunication Conferences 2023 (WRC-23), please consult the following [website](#).

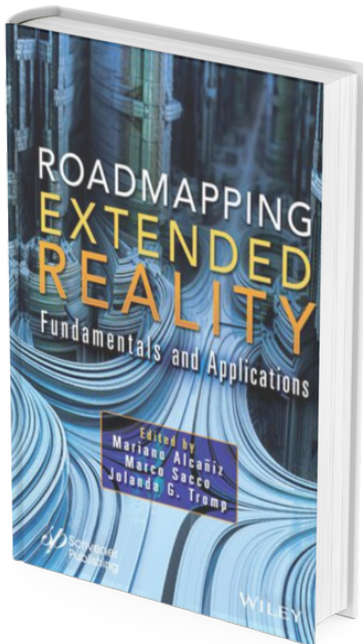
² Please see the ASSIA 2021 report "State of Wi-Fi Reporting", available here: <https://p.assa.io/assia-2021-wifi-report>.



ROADMAPPING EXTENDED REALITY: FUNDAMENTALS AND APPLICATIONS



WILEY



**Project Coordinated by
EuroXR Association**

XR technologies have overcome the 3 main aspects that were holding it back from mainstream adoption: cost, cables, and size. However, there are many aspects of XR technologies that are now going to be explored and developed that still need urgent research in terms of security, privacy, health and safety, long-term effects, addiction risks, and age-related developmental concerns,

The aim of the book is to inform all readers of these open issues and challenges. There are currently a great number of interdisciplinary researchers and developers working in the XR R&D field. Recently, XR technologies moved from the Gartner Hype Cycle onto the Plateau of Productivity on the Gartner Hype Cycle signaling that the fundamental XR technologies are now deemed mature technologies and ready for deployment in a wide variety of application areas. Corroborated by the fact that XR technologies are part of the future Metaverse, a concept that went rapidly mainstream during the time of writing of this book.

Roadmapping Extended Reality is divided into two parts: **(1) fundamentals and (2) applications**. The first part covers the main technological aspects of XR. The chapters in this section review and discuss relevant fundamental concepts of XR, the actual state-of-the-art, and future challenges. The second part of the book focuses on covering a wide range of applications of XR including a future roadmap. All in all, the book offers a snapshot of the state-of-the-art in XR and addresses the needs of a multidisciplinary audience working in both academia and the industry, as well as stakeholders at government agencies and non-profit organizations.

EDITORS



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PROFESSOR
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DELPHI REPORT

A CONSENSUS STUDY ABOUT THE STATE OF XR



BUY

The Delphi Report will be **FREE** for **EuroXR Members** as part of our commitment to research for our members.

[I'M A MEMBER](#)

In order to provide insights into the best approach to further develop XR towards its full potential, the **EuroXR Association initiated a study using the well-established Delphi consensus method**, drawing on the expertise of independent senior XR experts to formulate future directions for XR R&D. The results are presented in terms of a roadmap for the future of XR, identifying the prerequisites to clear the path for this, and clarifying the roles and responsibilities for the XR research community, the XR business community, and the government and regulation bodies. The main findings of our XR roadmap are summarized into a number of specific areas for the stakeholders to act upon, in order to push the cutting edge of XR and be part of the early-adopters who have this key enabling technology at their disposal throughout industry, education and society.

Aren't you a member yet?

[BECOME A MEMBER](#)

EUROXR23, 20TH INTERNATIONAL CONFERENCE



AS PART OF THE CONFERENCE

EuroXR Conference Awards

EuroXR International Conference Publications

EuroXR Open Forum Special Session

As already announced, the 20th EuroXR International Conference, #EuroXR2023, will take place in **Rotterdam, The Netherlands**, during the Immersive Tech Week!

EuroXR is one of the leading conferences in the field of VR/AR/MR technologies, including software systems, display technology, interaction devices, and applications.

This conference follows a series of successful international conferences aiming at creating a unique human-dimension framework, interconnecting European and international XR communities, for knowledge cross-fertilisations between researchers, technology providers, and end-users.

The conference focuses in **three main topics**:

Technology

Human
Factors
Issues

Applications

Divided in two main blocks

Scientific Conference
Proceeding

Applications Conference
Proceeding

KEEP TUNED FOR NEWS ABOUT
THE XR EVENT OF THE YEAR

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