

Realizing value using **immersive** **technologies**

Leadership programme

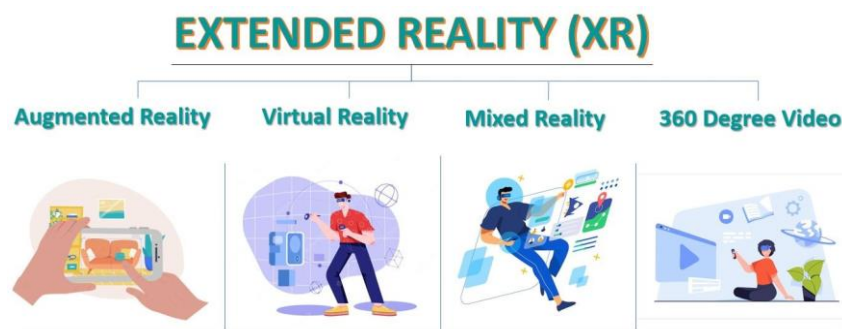


SUSTAINABLE
DEVELOPMENT
GOALS

1. Introduction

Why Immersive Experiences?

Immersive Experiences (IX) refers to the digital content made for the use of immersive technologies. Immersive technologies, or extended realities (XR) blend the physical and virtual worlds, using technologies including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR). The Immersive Xperience Lab at the Erasmus Centre for Data Analytics (ECDA) aims to play an important role in leveraging XR for the Sustainable Development Goals (SDGs), scientific research, and societal impact.



The added value of IX and XR

SDGs (Sustainable Development Goals)

XR provides an immersive and powerful medium to raise awareness and understanding of the SDGs and sustainability challenges.[1][2] Through virtual experiences, people can better comprehend the impact of issues like poverty, climate change, and biodiversity loss. XR can also facilitate effective training and education on sustainable practices across various sectors.[2][3]

Science

XR enables researchers to visualize and analyze complex datasets and phenomena intuitively and visually appealing ways, accelerating the discovery process and fostering interdisciplinary collaboration.[4] Virtual simulations and experiments can be conducted without physical constraints or resource wastage.

Society

XR allows for the visualization and experience of sustainable products, solutions, and applications before they are built, optimizing the design process and reducing material waste.[3][4] It enables skill acquisition in a safe, virtual environment and can promote inclusivity and mutual understanding through diverse avatars and virtual worlds.[2]

Government

XR provides governments with immersive tools for urban planning, infrastructure development, and public service delivery in virtual spaces.[3] It can aid in decision-making, stakeholder engagement, and policy communication through interactive simulations and visualizations.

Industry

XR offers industries opportunities for remote collaboration, training, prototyping, and product visualization, reducing travel emissions and resource consumption.[4][5] It can enhance productivity, safety, and sustainability across sectors like construction, manufacturing, and energy.

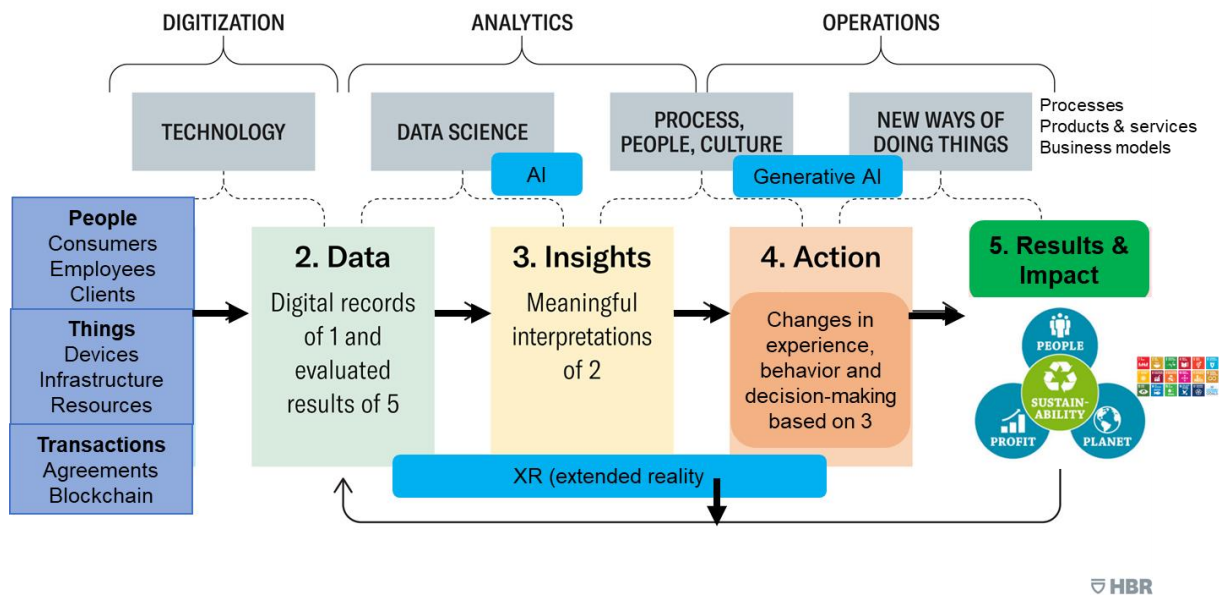


Examples of application domains and use cases for immersive technologies

The Immersive Experience Lab at ECDA aims to play a leading role in exploring these possibilities and delivering innovative XR solutions that contribute to a more sustainable and equitable world for all.

XR as part of a digital strategy

The opportunities of XR should be seen as a next wave of opportunities as part of a broader digital strategy of organizations. This is visualized as follows:



Context – digital transformation and the role of XR (adapted from HBR)

This programme is designed to help organizations in understanding the added value of the use of XR technologies and develop a strategy and innovation approach in realizing sustainable value from these technologies in the context of people, planet and/or profit.

2. Learning objectives of the programme

The programme has six learning objectives:

1. Inspire participants into the potential use and impact of Immersive Technologies and Immersive Experiences (in short XR and IX) across several domains and use cases.
2. Create understanding in how to build a digital XR strategy and realize value from the use of immersive technologies.
3. Develop a critical perspective, understand dilemmas and risks in the use of these technologies.
4. Create understanding in the technology stack and organizational transformation & experimentation approaches.
5. Learn from industry peers, academics and XR startups.
6. Build a community of early adopters, changemakers and innovators.



3. Unique elements of the programme

The programme is developed and offered by academics and experts on digital strategy, innovation, and immersive technologies. It offers the following unique elements:

1. Holistic set-up with wide range of topics that will be covered.
2. Try out and be inspired by immersive experiences and (tech) demos.
3. Internationally renowned guest speakers and Faculty.
4. Participants work in small teams and apply learnings to their own immersive technology project.
5. It inspires participants through peer-learning and an outside-in perspective.
6. Due to the setup, the programme is also interesting for international audience.
7. Site visit in Rotterdam to immersive experience.
8. Connect with peers and alumni during the Immersive Tech Week in Rotterdam (tickets included)



Example of digital human/avatar (@Reblika) and Drone technology for object scanning (@360Fabriek)

4. Who should attend?

Leaders and practitioners working in

- educational institutes.
- retail industry (production, trade, wholesale, retail, instore solution providers).

- transport, logistics, warehousing, mobility, supply chain orchestration.
- health (hospitals, medical devices, insurers, healthcare providers).
- government (cities, province, Ministries) responsible for policy making, planning, city management.
- Culture and creative sector (e.g. museums).

The ideal team composition consists of the following roles:

- Content designers & developers
- Innovation leads
- Digital
- Business / policy maker (internal customer)

An internal sponsor (e.g. CDO/CIO/CTO etc.) will join during dinner and during the final pitch session.



Trying out some of the latest technologies during the programme

The programme is offered in two possible set-ups:

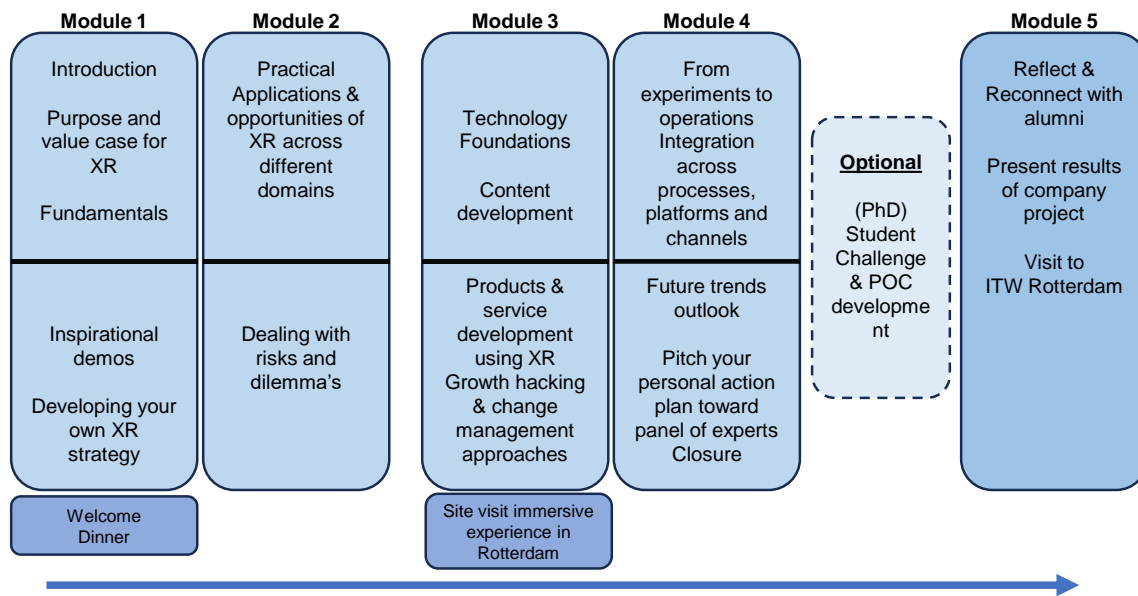
- (1) Open programme: enrolment with participants from different backgrounds (with variety of examples)
- (2) Customized programme: enrolment with participants from one organization or one domain (such as education, health, public infrastructure etc.) with examples from the specific domain.

5. XR innovation project

Participants bring their own XR innovation challenge or opportunity to work on during the programme. Throughout the programme there are several exercises and reflection sessions, where participants receive coaching and peer feedback on their project. At the end of the 4 days, programme participants create a short pitch presentation with an action plan including learnings they take back to their organization. During the get back session participants are asked to present initial results, such as a POC of the project they are working on. Between module 4 and the get back session the ECDA team will explore the possibility to connect your XR innovation challenge with a (team of) students, who can be involved in developing a proof of concept.

6. Programme Design

The pilot edition of this programme starts on Thursday September 19, 2024¹. The programme is organized by the Erasmus Centre for Data Analytics and hosted in the Immersive Experience Lab and XR Learning community of the Erasmus Data Collaboratory, Erasmus University Rotterdam. The programme structure is as follows:



The detailed structure is described below:

Module	Topic	Subtopics	Date / Time
1a	Welcome Introduction	<ul style="list-style-type: none"> Get to know each other What is the added value and purpose of Immersive technologies? Crash course Immersive Thinking (first person and spacial experience) Developing a digital strategy 	19-9-2024 900-1230
1b	Demos Develop your strategy	<ul style="list-style-type: none"> Inspirational demos AR & VR use cases In-class activity: How to link immersive tec to your own strategy 	19-9-2024 1330-1730
	Welcome dinner	<ul style="list-style-type: none"> 	19-9-2024 1800-2100
2a	Applications and opportunities	<ul style="list-style-type: none"> Welcome and recap module 1 Examples and guest speakers (tech / startups) from different domain-specific use cases and opportunities, including process, education/training, interaction and PR/promotion with examples from education, retail, healthcare, public/ art and logistics. 	20-9-2024 900-1230
2b	Risks and dilemma's	<ul style="list-style-type: none"> Dealing with Immersive Tech risks and dilemmas, including ethics, user privacy, sustainability, health, digital inclusion, hacking Discussion in groups 	20-9-2024 1330-1730

¹ Depending on number of registrations (minimal class size 15 participants)

Module	Topic	Subtopics	Date / Time
3a	Technology foundations	<ul style="list-style-type: none"> Welcome and recap module 1-2 Building the technology foundation, managing content creation and development. Immersive Environments & Data Visualization: Linking data and (gen)AI to Immersive technology Immersive Tech landscape and solutions 	3-10-2024 900-1230
3b	Products and service development approaches	<ul style="list-style-type: none"> Products & Service development using Immersive Tech Setting up a structure for experimentation & innovation Growth hacking & change management approach Exploring the impacts on customers/employees' behaviour 	3-10-2024 1330-1730
	Visit to immersive experience	<ul style="list-style-type: none"> Visit to immersive experience Dinner 	3-10-2024 1800-2100
4a	From experiments to scaling and implementation	<ul style="list-style-type: none"> Welcome and recap module 3 Moving from experiments to operations Integration across processes, platforms and channels Guest lecture -experiences from practice In-class exercise: Developing an actionable implementation plan 	4-10-2024 900-1230
4b	Future Trends Action plan pitches	<ul style="list-style-type: none"> Future trends outlook – by inspirational speaker Pitch Session: Pitch your personal Action plan toward panel of experts Closing event, certificate hand-out, drinks and bites 	4-10-2024 1330-1730
5	Reconnect with alumni Visit to ITW	<ul style="list-style-type: none"> Welcome alumni Workshop sharing learnings. Reflection on personal action & Implementation plans Visit to Immersive Tech Week Rotterdam / expo 	4-6 December 2024

7. Key Faculty, Speakers and Partners



Prof. Ting Li is the Professor of Digital Business at Rotterdam School of Management (RSM), Erasmus University. She is the founding member and the Academic Director of Digital Business Practice of the Erasmus Centre for Data Analytics. Ting Li is an expert in Digital Strategy, Ecommerce, Social Media Analytics, Mobile Marketing, Business Analytics, Online Advertising, and Pricing and Revenue Management. She has been a Visiting Professor at the Wharton School of Business, Temple University, Arizona State University, City University of Hong Kong, and Tsinghua University. In 2017, she was named by Poets & Quants as one of the Top 40 Professors Under 40 Worldwide



Prof. Yvonne van Everdingen is is Professor of Marketing and Innovation at Rotterdam School of Management, Erasmus University. Professor Van Everdingen leads the expert practice on Immersive Technologies of the Erasmus Centre for Data Analytics. She is member of the Special Interest Group Virtual Reality (SIG VR) at the Erasmus Behavioral Lab. Her research interests include the international adoption and diffusion of new products, the use of new technologies, such as virtual reality and augmented reality, for the

development and marketing of new products, and the marketing of refurbished products



Prof. Elmar Eisemann is a professor at TU Delft, heading the Computer Graphics and Visualization Group. Before, he was an associate professor at Telecom ParisTech (until 2012) and a senior scientist heading a research group in the Cluster of Excellence (Saarland University / MPI Informatik) (until 2009). His interests include real-time and perceptual rendering, visualization, alternative representations, shadow algorithms, global illumination, and GPU acceleration techniques



Prof. Pablo Cesar leads the Distributed and Interactive Systems (DIS) group at Centrum Wiskunde & Informatica, CWI, (The National Research Institute for Mathematics and Computer Science in the Netherlands). He is Professor ("Human-Centered Multimedia Systems Chair") at TU Delft, in the Multimedia Computing group. His research combines human-computer interaction and multimedia systems, and focuses on modelling and controlling complex collections of media objects (including real-time media and sensor data) that are distributed in time and space.

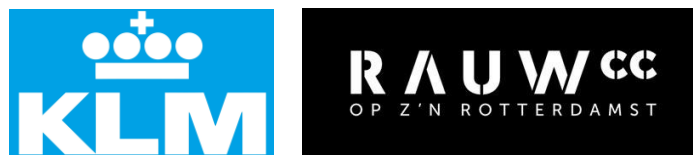


Frederike Manders is Immersive Experience Programme Manager of the Erasmus Centre for Data Analytics. In this role she provides advisory support to ErasmusX and ECDA, concerning immersive tech content and programs. This includes guiding experiments at the intersection of immersive technology and education. Frederike is CEO of MaMaProducties.



Jan Verwoerd is founder of 360Fabriek, an Immersive Media Studio based in Rotterdam.

Programme partners & expert speakers



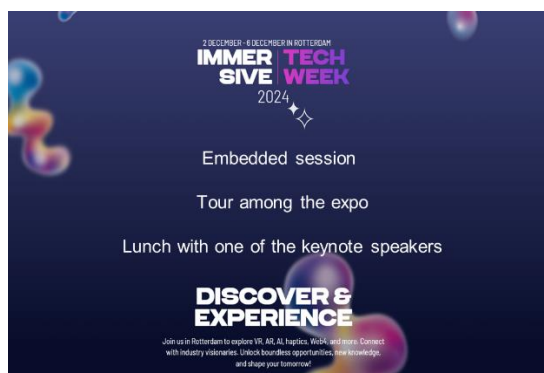
8. Programme Fees and class size.

The programme fee for the open enrolment of this leadership programme is **4.000 euro (excl VAT)**. Teams with 3 or more persons receive a discount of 10 %. This fee includes

- access to the online learning environment and materials
- four lunches and 2 dinner sessions
- ticket to the Immersive Tech Week in Rotterdam
- Embedded alumni session during the Immersive Tech Week in Rotterdam.

Minimum class size is 15 people, maximum class size is 25 people.

Fees for customized programs are discussed, based on a proposal of the required programme design.



9. Information and registration

Information on the programme including new dates:

[Leadership Programme Realizing Value Using Immersive Technology \(XR\) - Erasmus Centre for Data Analytics \(eur.nl\)](https://www.erasmus.nl/leadership-programme-realizing-value-using-immersive-technology-xr)

For more information:



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