cite Welcome to the Citiverse

Expanding the **Experience** of **Citizens** through **Extended Reality**

Sebastian Valkama

Project Manager
City of Tampere

Co-funded by the European Union

What is x-CITE?

A European project leveraging XR and AI to advance the CitiVerse as a human-centric tool for smarter, greener and more inclusive cities.

- Duration: Dec 2024 – May 2027
- 11 partners + 1 affiliated entity
- €6.49 million budget
- Co-funded by the EU Digital Europe Programme

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What is the CitiVerse?

“A virtual version of the city,
where citizens can see, explore and
influence plans in real time.”

A new kind of digital space where European cities **connect, collaborate, and co-create solutions** for real-world challenges.

It’s where cities use shared digital tools and data to **work smarter, plan better, and involve their citizens more directly** in shaping urban life.

It’s about **strengthening digital sovereignty**, promoting **inclusive innovation**, and making sure every city — and every citizen — can benefit from the digital transformation.

CitiVerse

Shaping Europe’s digital future

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Why x-CITE?

Cities already have or are developing:

- Digital twins
- Urban data platforms
- Planning tools

But citizens often lack:

- Accessibility
- Transparency
- Meaningful participation

How do we make Local Digital Twins understandable and participatory?

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What will x-CITE do?

- Build a **human-centric CitiVerse framework** based on European standards
- Test **12 use-cases** in the areas of urban planning, social engagement, culture and tourism in **3 pilot regions**: Rotterdam, Tampere and Flanders
- Engage citizens through immersive technology and co-creation

Story from Flanders

“Leen was lost in complex environmental reports. Now she sees how different planning options affect traffic, air quality and noise in her street — and shares her views directly.”

➔ She feels empowered and connected to her city.

Flanders uses CitiVerse to translate complex environmental reports into easy-to-understand 3D visualizations. This allows citizens to explore the real impact of planning decisions on their surroundings, fostering greater transparency and community participation in sustainable urban development.

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Story from Rotterdam

“Inaya takes a virtual stroll with her 70-year-old mother, who uses a wheelchair, through their neighbourhood. They greet neighbours, discuss local news, and give feedback on a new development plan.”

➔ They feel included and involved in their community, as they can easily meet, chat and co-create with their fellow citizens.

Rotterdam’s pilot will develop a local digital realm — a digital version of a Rotterdam neighbourhood, where citizens will be able to meet neighbours and chat with them and discover local news. This use case explores community development, citizen engagement and inclusion for a more citizen-driven city.

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Story from Tampere

“Mikko never liked history — until he walked through virtual scenes of Tampere’s past. Now he’s sharing heritage stories with classmates.”

➔ He feels connected to his city and proud to be part of a long history.

Tampere’s use cases bring culture and history to life through immersive experiences. With interactive public art maps, XR-enhanced exhibitions and live events, and gamified storytelling of the 1918 Civil War, citizens and visitors can explore Tampere’s cultural heritage in engaging new ways. The pilots foster cultural participation, education, and creative expression by integrating XR into museums, schools, and public spaces.

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Building on existing foundations

Across all pilots:

- Existing LDT infrastructures
- 3D city models and spatial data
- Open data interfaces

x-CITE adds:

- XR and immersive environments
- Scenario visualisation
- Participatory interaction tools

Enabling interoperable, standards-aligned CitiVerse integration.

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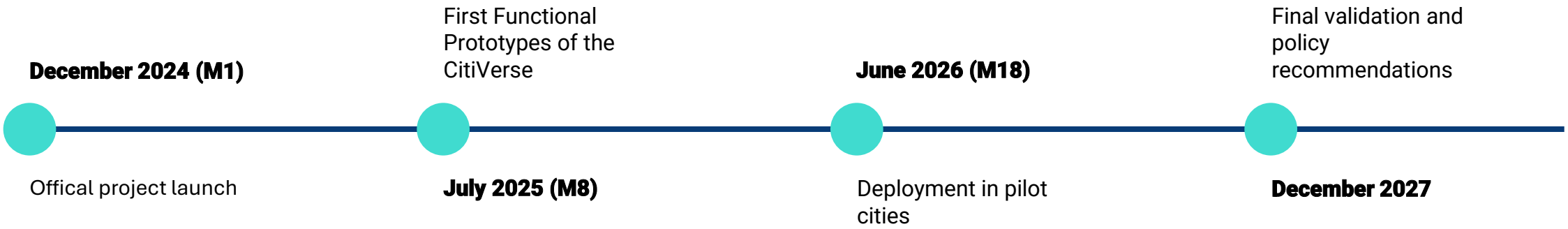
x-CITE – timeline



Key challenges and next steps

Key challenges:

- Interoperability across cities and digital infrastructures
- Translating complex data into intuitive citizen experiences
- Data governance, privacy and digital sovereignty
- Ensuring inclusive and sustained citizen engagement
- *Balancing innovation with responsibility*

Next steps:

- Advance implementation of city use cases
- Deepen integration with LDTs
- Expand citizen-facing deployments and structured user testing
- Assess usability, accessibility and engagement metrics
- Evaluate technical performance
- Refine governance and interoperability
- *Scalability, reusability and European policy recommendations*

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Key messages

- **Transforming Cities & Lives:** CitiVerse helps European cities become more competitive, improves residents' quality of life, and sets a standard for ethical and responsible digital urban development.

- **Bringing Smart Cities to Life**: x-CITE defines, tests, and validates CitiVerse solutions, ensuring they are interoperable, inclusive, ethical, and adaptable to real-world urban challenges.

- **Empowering Citizens through Technology**: x-CITE creates new digital tools that make citizen participation in urban planning more interactive, accessible, and impactful.

- **A Collective Effort for Smarter Cities**: x-CITE unites leading smart cities, research institutions, innovation agencies, and private sector partners to drive sustainable urban transformation.

- **Real-World Impact**: The x-CITE pilots in Tampere, Rotterdam, and Flanders demonstrate the value of CitiVerse in areas such as citizen engagement, sustainable urban development, tourism, and cultural heritage.

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