# GAME ON!

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What is the potential of **gamification** in shaping the cities of tomorrow? Find out how **video games** like Minecraft and SuperBARRIO are revolutionising community engagement and making cities more inclusive and sustainable.

The importance of engaging local communities in the design and development of public spaces has been widely recognised by policymakers and urban planners. Involving citizens in such processes is key to creating truly inclusive, safe, and accessible cities, but to do so effectively has not come without its challenges: balancing the needs of multiple stakeholders, communicating harmoniously between professionals and individuals without any technical knowledge, and engaging with a wide variety of social groups in any community are just some of the barriers to public participation in urban design.

***Kids playing Minecraft during one of the WohnRegion project workshops (previous)***

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This is especially beneficial for specific user groups such as children: youth involvement has long been a significant challenge for public participation in urban design, and integrating the innovative and fun nature of video games into public space design could help bridge this gap, empowering young people to have a say in shaping the cities they will eventually inherit.

So, what does gamification look like in the context of urban planning? How can this participatory method bring together different kinds of users, including children, to create more liveable cities?

## Leveraging existing video games: The Minecraft case

Several video game-based urban planning approaches have proven successful and popular with citizens. One of the first was the Block by Block initiative, a collaboration between UN-Habitat and Mojang Studios to integrate the computer game Minecraft into public space planning and get community members more involved. Minecraft is a user-friendly game that helps players visualise three-dimensional environments in a format designed for rapid iteration and idea-sharing.

Through participatory workshops, Block by Block seeks to help neighbourhood residents design the public space that they would like to see. To date, this initiative has sparked dozens of projects in more than 55 countries worldwide.

Since then, many others have begun to leverage the potential of Minecraft and apply it to their specific contexts. In 2022, the Deutsches Architekturmuseum (DAM) (German Architecture Museum), together with Minecraft YouTube influencer Josef Heinrich Bogatzki (under the alias TheJoCraft), conducted the 'WohnRegion' project, to test how Minecraft could be used as a tool for urban planning in the Frankfurt Rhein Main region, a POLIS member.

The identified context within the metropolitan area was that public space could no longer be negotiated on a local, small-scale level and that constructive dialogue between different stakeholders, including citizens, was essential to design the region's future in a manner beneficial to all concerned.

The WohnRegion project thus sought to encourage citizens to share their input on urban planning matters, with a specific focus on housing and shared living environments. Together with urban planners from eight districts in Hessen, the project team defined local challenges — some even related to transport, such as

***Section of Oberursel district transposed into Minecraft for the WohnRegion project (below)***

*© TheJoCraft*

*Digital version of the Kronberg district in the WohnRegion project*
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pedestrian crossings, parking management, and inclusivity — to be transposed into Minecraft's digital world. Each challenge was based on the unique context of each of the districts, and specific rules were created to reflect the inherent considerations of decision-making processes in planning. Players then had to develop their own solutions to the problem, sharing their vision of what their district should look like.

The project ran from 1 June to 30 September 2022. During this period, public participation was possible, with gamers able to play from home. Additionally, the project organised workshops in each of the districts to include citizens who lacked access to the game and to involve, above all, young children.

The project was a resounding success, with an outpouring of positive feedback from participants and parents alike. The conclusion was that Minecraft could be an excellent tool for engaging diverse age groups in planning processes, as it allows children and young people to critically and playfully address urban planning issues, participating in discussions in a manner that resonates with them. Moreover, because it helps planners and decision-makers understand and adopt the perspectives and language of young people, the project's approach was seen as a driver for inclusive and responsive design.

## Designing video games for inclusive urban planning: the SuperBARRIO case

Beyond using existing video games as a participatory method for urban planning, others have resorted to developing brand new options to meet the more specific needs of policymakers and city planners. This is something that the European project ELABORATOR has recently begun working on.

ELABORATOR uses a holistic approach for planning, designing, implementing, and deploying specific innovations and interventions for safe, inclusive, and sustainable urban mobility. The interventions will be demonstrated in several cities across Europe, starting with six Lighthouse cities: Milan (IT), Copenhagen (DK), Helsinki (FI), Issy-les-Moulineaux (FR), Zaragoza (ES), and Trikala (GR). Additionally, six Follower cities will learn and exchange with the Lighthouse cities to plan and implement their own sustainable solutions.

The interventions will be co-designed and co-created specifically with identified 'vulnerable to exclusion' user groups, such

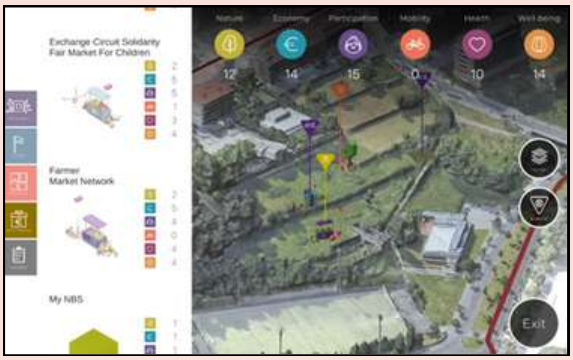
as women, children, older people, and people with physical or mental impairments, among others. Gamification will be used as one of the methodologies to achieve this goal: indeed, the Institute for Advanced Architecture of Catalonia (IAAC), one of the ELABORATOR partners, is currently working on the development of a new version of their video game specifically for the project.

IAAC designed SuperBARRIO as a digital participatory tool that broadens the potential target groups involved in collaborative design, addressing the limitations of more conventional co-creation techniques. Developed as an open-source video game for smartphones and tablets, it allows architects and public entities to engage citizens in the design of public space, collect data about their needs and preferences, and exchange ideas about sustainability and inclusiveness. Initially conceived for the design of Barcelona's Superblock, it was further developed in the URBiNAT H2020 project to focus on co-creating green corridors in deprived areas of three pilot cities (Porto, Nantes, Sofia) using nature-based solutions. Players could download the game as an application and create 3D design strategies for the public space, incorporating proposed solutions from the URBiNAT catalogue. This interactive process helped users see how different solutions would impact important indicators such as well-being, inclusiveness, and resilience.

A new version of the SuperBARRIO game will be developed for ELABORATOR, focusing on the co-design of urban spaces to specifically improve mobility. A 3D model will be created for each target area in the Lighthouse cities of Milan, Trikala, and Zaragoza. Players will navigate these spaces, highlight accessibility barriers and safety risks, and drag and test a diverse range of mobility solutions.

From temporary to permanent infrastructure, the new catalogue of SuperBARRIO for ELABORATOR will include solutions such as bike lanes, green spaces, traffic management measures, and tactical urbanism interventions. The updated game will also feature a new set of specific indicators related to mobility, such as road safety, noise impact, and traffic intensity.

As with the previous version, the goal of the game will be to place the solutions from the catalogue in the target area to understand their impacts. In the process, players will also provide data from the game sessions to support local decision-makers, urbanists, and mobility experts in making publicly informed choices. In the upcoming months, test-play workshops will take place with local partners and relevant target groups in the three Lighthouse cities.




***Gameplay of SuperBARRIO (URBiNAT)***
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***SuperBARRIO versions developed for URBiNAT***
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## Conclusion

The use of video games in urban planning offers a promising solution to the challenges of public participation. By creating engaging, accessible, and interactive platforms, urban planners can foster more inclusive dialogue and develop cities that reflect the needs and aspirations of all their inhabitants, including harder-to-reach target groups, such as children. As efforts to address the climate crisis accelerate in the next decades, gamification holds great potential for a future of urban design that is safe, inclusive, and accessible for everyone.