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## Design Games as a creative co-creation tool for planning public infrastructure.

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Design Games provide a playful approach to generating ideas through participatory design (Sanders, 2002). An actual game, including gaming material and a specific set of rules, is designed to be played with potential users or other relevant stakeholders. Through the course of the play, the players need to articulate their perspectives on certain tasks explicitly and this provides new insights and ideas for the designers of public infrastructure. Furthermore, design games can be used to develop a common understanding of complex problems and challenges. Usually, design games are realized as haptic games, such as a board game or a card game (Brandt, 2006; Pedersen & Buur, 2011). In the SmartHubs project planners and researchers who usually do not apply creative gaming methods in their workflow, were supported in designing their own design games. Researchers and planners from four living labs across Europe designed individual games to collect ideas and perspectives from citizens in order to design smart mobility hubs. The labs were provided with blank gaming materials and a structured guide, specially developed to support non-designers in designing a Design Game. This process also included occasional feedback sessions with designers and led to four individual analogue design games. Based on one of the resulting games, an enhanced augmented realitysupported digital game was realized as proof of concept. The application of Design Games in the SmartHubs project clearly shows its potential to act as a game changer in co-creation processes. A new creative method to understand the needs and wishes of citizens and other stakeholders was introduced to planners. The method supports creative thinking and opens up new perspectives on how to co-create public infrastructure. Design Games provide a joyfully structured framework for exchanging perspectives, acting in different roles and expressing arguments. They support an intensive confrontation with a topic and deliver clear suggestions directly from players. Design Games can easily be generalized and scaled. The basic rules and the goals of the game can be applied in many different locations (with similar research questions). The needed effort to adapt the gaming materials to specific locations is low. Tokens, playing cards, gameboards and other materials can easily be tailored to specific locations and contexts. This allows the application of Design Game throughout a long period of time in different planning processes, cities and structures. Design Games are a powerful method for including citizens in decision-making and getting insights into the perspectives of various stakeholders. If non-designers design these games, they need to get the proper support at each stage of the design process. This includes providing the right amount of information at the right point of the process and supporting the designers with high-quality information and materials at the right time.

## References

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