

## **Governance | Individual communication**

### **IC - (21127) - DEVELOPING A LIVING LAB TO IMPROVE TENANT PARTICIPATION IN RENOVATION PRACTICES**

Clarine Van Oel<sup>1</sup>; Jelle Koolwijk<sup>1</sup>; Huu Dat Nguyen<sup>2</sup>; Arno Freeke<sup>2</sup>; Chris Benning<sup>1</sup>; Meloek Mlihi<sup>1</sup>

1 - Delft University of Technology, department of Architecture and the Built Environment; 2 - Delft University of Technology, New Media Centre VR-Zone

#### **Background and objectives**

Sustainable renovation of homes is a necessary step to meet the EU goals of energy efficiency. In social housing, sustainable renovation requires the consent of tenants as typically the rents will be increased upon renovation. Tenant acceptance is thus of great relevance for the success of social housing upgrading (Blomsterberg & Pedersen, 2015).

In this context, we use the concept of a Living Lab as a means to introduce immersive visualization design models to communicate renovation measures to tenants. Living Labs were created as a social innovation to improve participatory processes. Therefore, we develop the project in close collaboration with the housing association and the involved contractor using a practice-based approach. As a first step, in this part of the project we aim to gain insight into how we are to understand the concept of participation. Second, we aim to investigate how virtual reality as a boundary object can support participatory design processes in Living Labs.

#### **Process and methods (for empirical research)**

We conducted (partly online) in-depth interviews with 6 professionals involved in the Living Lab, and are complementing these interviews with in-depth interviews on empowering social tenants from another Living Lab. Data was recorded as audio, and will be analyzed in Atlas.ti, using an interpretive lens.

#### **Main results (or main arguments in the case of critical reviews)**

Participation of social tenants in renovation processes is enforced by Dutch law. Interviewees defined participation in different ways, emphasizing either communicative aspects or empowering aspects as a core element. Outcomes of additional interviews will be used to investigate to what extent virtual reality goes beyond mere communication and empower tenants in their contact with the housing association and the contractor and helped tenants to master their situation.

#### **Implications for research and practice/policy | Importance and originality of the contribution**

Based on the interviews we proposed to use Cross Reality to enable social tenants to participate in redesigning their communal garden as a means to enhance social cohesion, and to support their well-being.

**Palavras-chave :** social housing upgrading, participation, communication, virtual reality, boundary object