Policy Summary

User Satisfaction in Smart Environments: The Case "Stadhuistoren" Smart Office Building of Municipality of Eindhoven

The introduction of smart technologies in office environments is often technology driven, meaning that user satisfaction is hardly systematically studied. In this project the impact of new smart technologies on user satisfaction in smart office environments is researched when relocating to a smart office building (De Stadhuistoren in Eindhoven). Science, society and industry are involved in this project represented by different persons: Bauke de Vries (project leader, TU/e), Deniz Tuzcuoglu (researcher, TU/e), Michiel Oomen, Joyce Vercoelen, Garry Whitrick (Partners, Municipality of Eindhoven), and Marc Horsten (Partner, Impuls B.V.). This research provides possibilities to contribute to the knowledge development of successful smart environments, but also for smart region development such as the Eindhoven region which is well known for its technological innovation.

The results of this project provide understandings of user behaviour and satisfaction from smart offices, as well as insights and suggestions for future smart office projects. The project reveals that the process of experiencing a smart office environment consists of four phases: pre-relocation phase, confrontational phase, progressive phase, and stabilised phase. Each user of the Standhuistoren experienced the phases differently. Understanding this process provided insights about users experience and expectations of technology in office environments. The results provide facility managers of building stock with guidelines on the transformation from a traditional office into a smart office. The results of this study suggest a clear definition of the smartness characteristics is important, which can enhance user satisfaction by enabling users to be well informed before relocation and prevent confusion. Also, providing a accessible, decent workplace variety and innovative elements in the office environment can encourage user's perception of smart office environments. Furthermore, the results of this study suggest identifying the user needs and variations among them and a good understanding of existing working behaviours for designing successful smart office environments. The results of this study further suggest that the spatial configuration, and if possible smart applications, should facilitate social interaction in an office environment.
Finally, designers, decision makers and relocation managers can use these insights to identify elements that are critical for users in a smart office building. Future studies can employ the method of this study and focus on how user behaviour and satisfaction vary when different combinations of smart technology and office design are applied. In the future more data can be collected to measure long term effects.

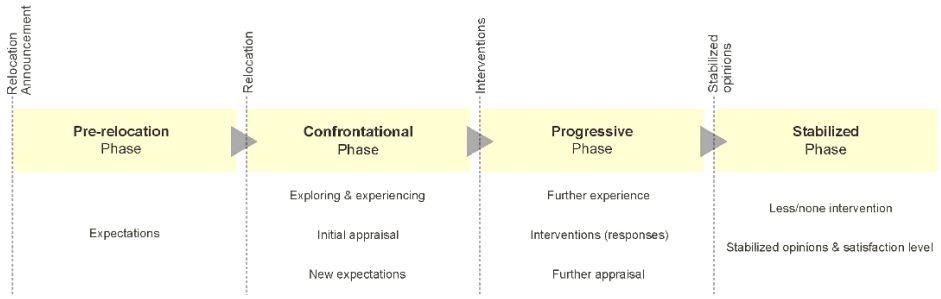

Figure The process of experiencing a smart office environment

The project website: https://www.verdus.nl/project/user-satisfaction/
The contact person: d.tuzcuoglu@tue.nl, Deniz Tuzcuoglu