

Research on

# Digital Technologies for Circular Asset Management



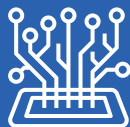
## Climate crisis and the building industry

The rapid growth of the human population in the last century has caused significant environmental problems due to the tremendous material, nutrition, and energy demand. The building sector has a considerable potential to tackle these problems as it is responsible for up to 50% of the natural resource consumption, 36% of the final energy use and 39% of the energy and process-related emissions. The Circular Economy concept is an alternative solution which proposes a resource-effective model as opposed to existing linear wasteful systems.



## Digital technologies for circular housing

Within a circular economy no waste is generated because all materials turn into new products. To enable reuse in the construction sector, it is important to know the location, quality and availability of building components to keep their value at the highest level possible at all times. Digital technologies allow to access information that is necessary to reuse, refurbish and recycle, share idle materials, harvest building components at their end-of-life, extend product life, etc. Also, they are crucial for the implementation of circular business models like product as a service and sharing platforms.



## Housing organizations are at the heart of the problem

In the EU, social housing comprises of 11% of the total housing stock. Increasing resource efficiency in the social housing sector, therefore, is an important step towards reaching a resource efficient society.

At Delft University of Technology, we are developing strategies for circular construction and renovation of social housing, aimed at the prevention of down-cycling. We are the lead partner of an Interreg North-West Europe project, called CHARM. Together with seven partners, four of which are housing organizations from Belgium, France, the Netherlands and the UK, we strive to bring the circular economy to the housing sector.

## Your opinion matters!

In 2020 March, we are going to conduct a study to map the state of art in North-Western European housing organizations in terms of their circularity goals and how they assess the use of digital technologies. We hereby call for panelists who are willing to contribute to our research. If you are a manager, advisor or decision maker in asset management, IT or sustainability in a housing association in Belgium, France, the Netherlands and the UK, we would like to hear your opinion. You have a chance to contribute to shaping the future of digitalization and circularity in the housing sector. Your opinion matters!

Please contact me at [s.cetin-ozturk@tudelft.nl](mailto:s.cetin-ozturk@tudelft.nl) to get more information and participate in our research.

