Company: Raad voor Arbeidsverhoudingen in de Schoonmaak- en Glazenswassersbranche (RAS)

Project: Responsible Implementation of Technology in the Cleaning Sector

EngD trainee: Roy van Zijl, University of Twente

Robotics

Working in a clean office is beneficial for work enjoyment and productivity. Cleaners are an important part of this. However, their work is often seen as 'inferior' to other jobs. This stigma is causing mental problems within the cleaners' community with a significant group of cleaners stating that their work is underrated and underappreciated. Furthermore, many suffer from physical injuries due to the intensive labor. Repetitive tasks and challenging working positions put a lot of stress on their bodies.

There are many questions relating the implementation of technology into this sector, which is naturally conservative and wishes to be kept 'simple'. The main goal of this project is to create a technological solution that improves the mental and physical working conditions of cleaners whilst also accepted by them.

The project uses a systems engineering approach by looking into the system architecture of the technology under design, as well as its relationship with the cleaner that will use it and its surroundings. Thorough research into sociotechnical relations and human-machine interactions is required. The final results will be prototypes of technologies that can ease cleaning tasks, as well as a future vision on how technology can be further implemented in the sector.



