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## 1. History of Willy

### 1.1. The birth of an idea

In 2015 a 'waste competition' was organized at a primary school, with the aim to provide the pupils of this primary school with a solution to the question 'how to keep the Grote Markt in Zwolle clean'. Eventually, six students won this competition with their idea to keep the Grote Markt clean with the help of a 'cleaning robot (Willy)'. An important aspect of Willy had to be that he would be able to interact with bystanders and thus influence them on their waste behavior. For example, Willy might point out to people that it would be better to deposit waste in a waste bin instead of throwing it on the floor; this would enable Willy to influence people positively. In short, Willy must be able to act in a corrective as well as a preventive (i.e. interaction) manner.

The primary school contacted the township of Zwolle to see if the 'Willy concept' could be realized. The township of Zwolle reacted positively to the Willy concept and then looked into whether it

could involve a partner who could take on Willy's realization.

Eventually the township of Zwolle found 'The Art of Robotics (TAoR)'; a foundation that works to increase the awareness of robot technology in today's society. 'The team of TAoR responded enthusiastically to this proposition and subsequently made a plan on how they could best realize Willy. Ruud van der Burg contacted Hogeschool Windesheim on behalf of TAoR with the proposal to see if it would be possible to let students (of different disciplines) work at Willy. Windesheim has agreed to this, with which the realization process of Willy started.