



WAGENINGEN UR

For quality of life

Sweet Pepper Harvesting Robot

ICT Robotic Use Cases project in the H2020 programme of the EU

Wageningen UR Greenhouse Horticulture

Sweeper

SWEEPER's main objective is to put the first generation greenhouse harvesting robots

onto the market. It will ensure Europe's leading role in agricultural robotics. Until now this has never been achieved.



In modern greenhouses there is a high demand to automate labour. The availability of a skilled workforce that accepts repetitive tasks in the harsh climate conditions of a greenhouse is decreasing rapidly. The current state of the art in automated harvesting of fruits and vegetables has remained remarkably stationary in the past decades.

In the EU-FP7-project CROPS (www.crops-robots.eu) extensive research has been performed on agricultural robotics. One of the applications was a sweet pepper harvesting robot. SWEEPER will use the technology developed in CROPS to introduce, test and validate a robotic harvesting solution for sweet pepper under real-world conditions.



The robot consists of a manipulator (robotic arm and gripper), a camera system for fruit and obstacle detection, an illumination system and an autonomous mobile platform. Fruits will be picked using a lip-type gripper, as was developed in CROPS.



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Project partners

SWEEPER involves 6 partners from 4 different countries (The Netherlands, Belgium, Sweden and Israel). The consortium consists out of fundamental and applied research organisations, a system integrator and a modern grower of sweet pepper. In the consortium a wide-range of disciplines are available, including: horticulture, horticultural engineering, machine vision, sensing, robotics, control, intelligent systems, software architecture, system integration and greenhouse crop management.

Start: February 1st, 2015. Duration: 36 months.

Information: <http://www.sweeper-robot.eu>



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**PROEFSTATION
VOOR DE GROENTETEELT**

אוניברסיטת בן-גוריון בנגב
Ben-Gurion University of the Negev



de tuindershoek

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HORIZON 2020

The EU Framework Programme for Research and Innovation

For more information about our research and services:

Wageningen UR Greenhouse horticulture

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Advanced crop production systems