Test and validation

2024WP3_Hortiv_001
Status: Completed

Business case
Minimum Viable Product Analysis
BC-3

Problem Owner:
Hortivation

Involved:
Tomatoworld
TNO
Octiva
30MHZ
Robocrops / InnovationQuarter

Greenhouse
Horticulture

Validation of the Hortivationpoint

The essential step in improving interoperability and automation in greenhouses through validation of a standardized reference point for positioning.
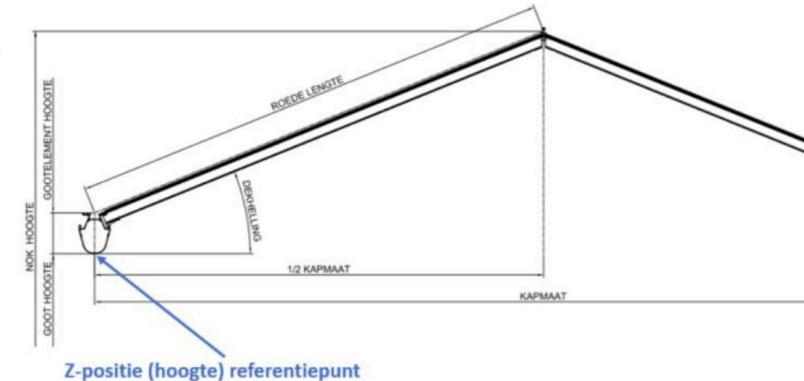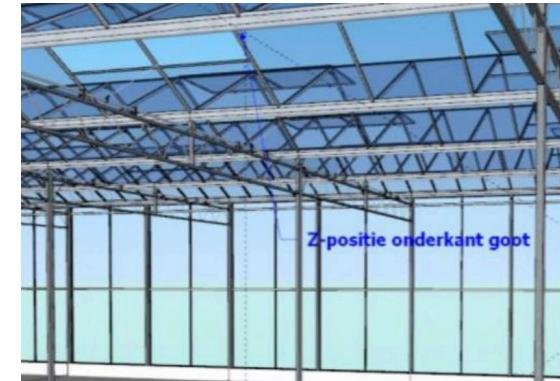
Broad knowledge question
How can a standardized reference point in greenhouses (the Hortivationpoint) help improve positioning and cooperation between autonomous systems in greenhouses?
This addresses system failure caused by the lack of a universal standard for positioning (x, y and z coordinates) within greenhouses, and transformation failure due to the absence of uniform positioning methods.

Approach
Execution of an MVP analysis by
• defining an MVP for the Hortivationpoint
• obtaining geometric data from Tomatoworld in line with ISSO 88
• implementing the Hortivationpoint
• linking objects to this reference point

Objective
To validate the applicability of the Hortivationpoint through an MVP of the Hortivationpoint in Tomatoworld.
This is done by determining the Hortivationpoint of Tomatoworld and relating objects from NXTGEN partners to this reference point. The project focuses on the practical feasibility of this standardized reference point in greenhouses.

Results and reflection
[The MVP Hortivationpoint in Tomatoworld has been delivered, defining the x, y and z location in relation to the CASTA data. For visitors, the Hortivationpoint is physically presented in the field lab.The successful delivery and initial testing of the MVP indicate opportunities for standardization and innovation, as suppliers of objects are not yet accustomed to sending data to a central system. To contribute to this standardization and the resulting innovation, follow-up steps will focus on technical validation by combining data from robots and sensors in Tomatoworld into a single data pool.