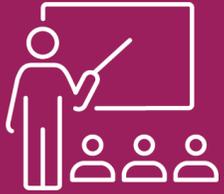


Test and validation

2025WP3_GTBNL_001
Status: Competed



Business case
Minimum Viable Product analysis

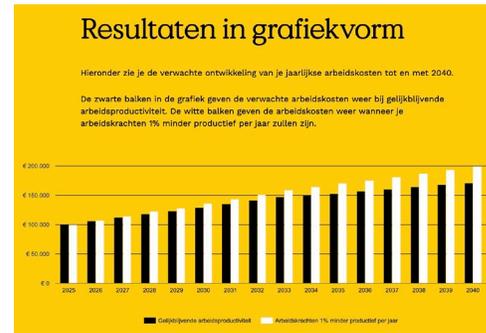
Problem owner :
Glastuinbouw Nederland

Involved:
Gibbs analytics, Robocrops, telers

More information?
Colinda de Beer



User acceptance – Labor Cost Tool



(Verwachte) stijging arbeidskosten



Reden investering in robots

Broad knowledge question

How can growers effectively deploy robotics and AI to future-proof the organization of labor, despite high costs, limited testing opportunities and a lack of trust? The core challenge is bridging the gap between technological development and practical application in the greenhouse. A key component is gaining insight into future labor costs in order to build a realistic business case.

Approach

The project was carried out using a Minimum Viable Product approach. First, a basic cost calculation tool was developed and then iteratively refined based on feedback from Glastuinbouw Nederland study groups. In parallel, robust labor cost forecasts were developed for each subsector using data from Statistics Netherlands and the Netherlands Bureau for Economic Policy Analysis, combined with time series models incorporating macroeconomic factors. Assumptions, data and outcomes were continuously validated with industry stakeholders to ensure practical applicability for growers.

Objective

To develop a working MVP that provides growers with concrete, evidence-based insight into the future development of labor costs per subsector, as a foundation for strategic investment decisions. This makes it possible to realistically weigh investments in robotics and AI against labor, based on data rather than intuition. The tool supports growers in building a clear and sector-specific business case.

Results and reflection

Initially, the intention was to include more data in the first version of the tool. However, discussions with growers showed that it was not clear which data should be included in the business case tool. What could be delivered in the short term was a tool providing a forecast of the increase in labor costs. In the next phase, it will be examined which additional factors should be included to enable a more comprehensive business case calculation.

Access the tool at: <https://www.gibbs.ac/arbeidskosten/>