



ISO Group B.V. The Netherlands
Global Business Development - Joep Hendricks
October 15th 2024

> 1.000

machines in operation

> 500

Cutting planters in operation

We automate difficult and repetitive manual labor in the global food, flower and forestry industries.

~25%

revenue from recurring clients

131

Number of employees

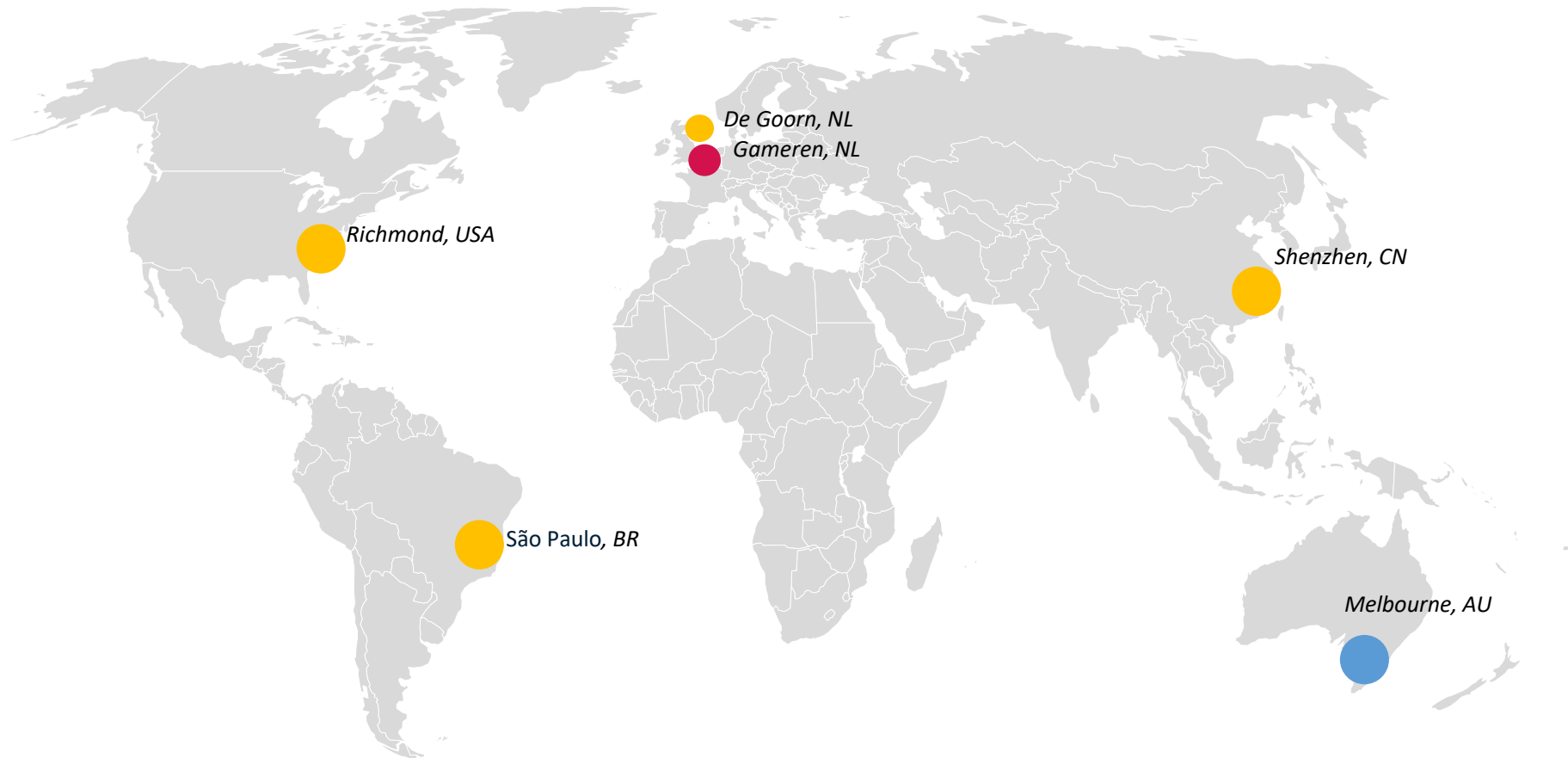
14 + 7

Patent families

7.000.000.000

Plants handled per year

ISO Locations



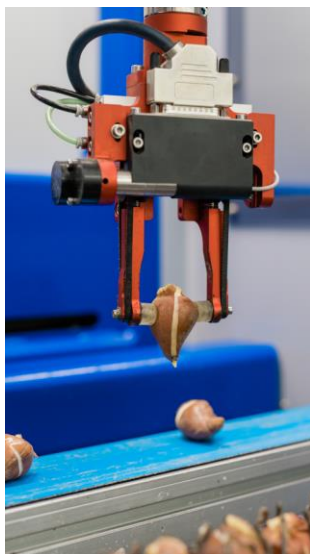
- *Headquarters*
- *Sales & Service*
- *Partner*

*“We enable our clients to optimize
key breeding, propagation and cultivation processes”*

Cutting
Planting



Bulb
Planting



Grafting



Grading &
Sorting



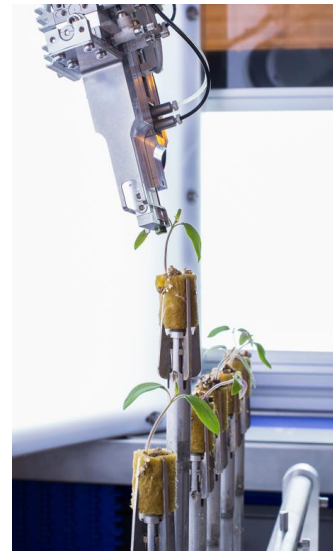
Harvesting
Robot



Planting
Robot



DNA
Sampling





[Automating labour within the horticultural industry - ISO \(isohorti.com\)](http://isohorti.com)

WHEN CONSIDERING
AUTOMATION....

...innovating or optimizing..?

*...Changing the process or the
system...?*





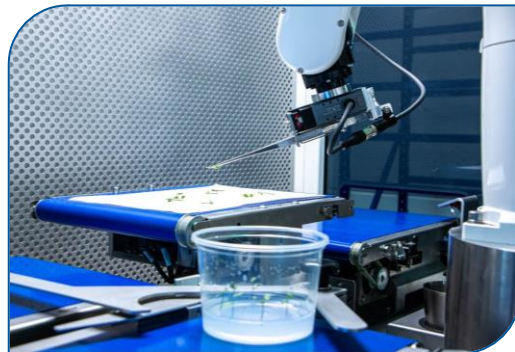
TISSUE HARVEST

INVITRO
PLANTING

CUTTING
PLANTING

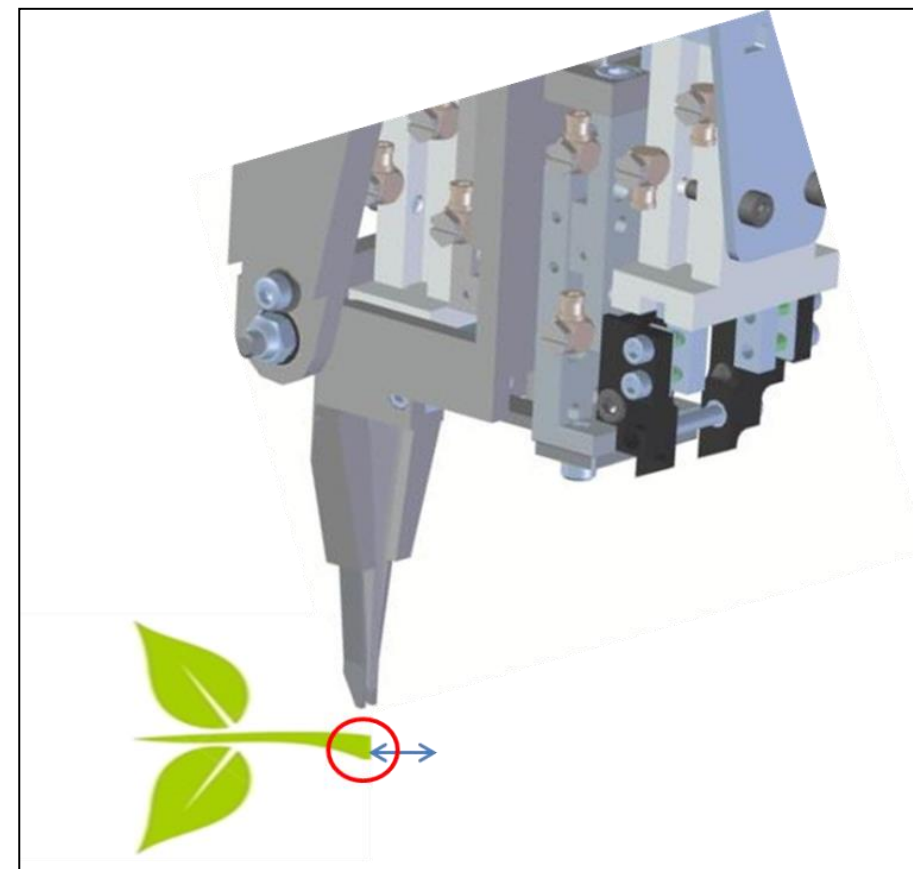
1ST
SELECTION

FINAL
SELECTION



Uniform Starting material with ISO Cutting Planters

- Vision can select cuttings to grower's specs
- Planting consistent and uniform
- Centered planting in every target cell
- Uniform planting depth

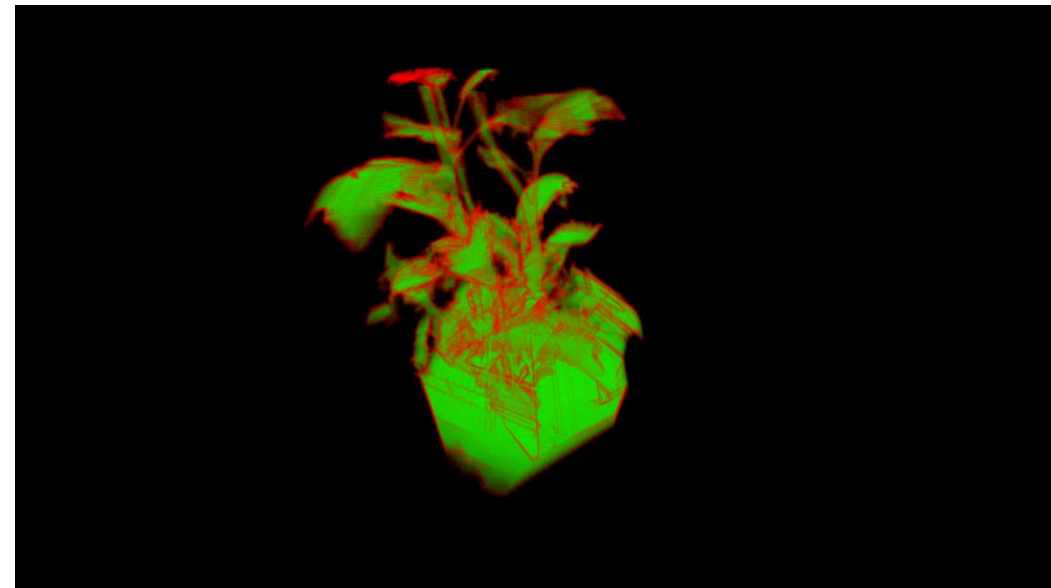


Uniformity in Nursery Production

- Grading based on your criteria
- Sorting in your classifications
- Every individual plant has a 3D model

Result:

Uniformity across all growing stages, maximising nursery capacity.



KEY TAKE AWAYS

- Automation is never a silver bullet; you will need a combination of biology and technology and tweak either one or both to align them to maximise your benefits from automation
- A robot is always part of a bigger system. Pay attention to the process around the robot. The entire logistic process of plants, trays containers needs to align not only in terms of volume and timing but also quality uniformity and reliability.
- Keep an open mind to alternative processes, perhaps (semi)-manual is a better option for your situation;
- Accept a success rate below 100%; just as people and plants there is no absolute perfection (yet)
- Never underestimate the economics! Regularly validate your assumptions on the business cases.



Thank you for your attention

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1.435 mm





HORTI INNOVATORS