System engineering & Software Development @ Lely



Arjen Mateboer | Director Product Development

Lely
In 2025

€ 1,014 mil.
annual sales

2,800
employees

~4,000
Lely Center employees

>8%
turnover
invested in R&D

1,500
living patents

3
factories

> 50
markets




A **sustainable**, **profitable**, and
enjoyable future in farming

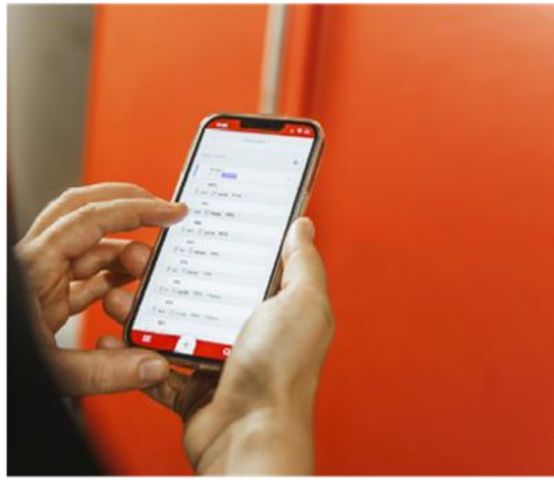

Creating **the future in farming** through **innovative** and **valued solutions**













Discovery
Collector

Lely Astri-L
Lely Astri Lin

We operate in the Agritech market

Farmers (our customers) have little economic power and spending power which drives strict cost limitations

Labor shortages and demand for productivity, flexibility, and sustainable care accelerate the use of autonomous robotics.



Agri



We operate in the Agritech market

Farmers (our customers) have little economic
spending power driving strict cost limitations

Labor shortages and demand for productivity,
sustainable care accelerate autonomous robot



Autonomous farm robots operate in complex, dynamic environments shared with cows, people & other moving vehicles

We operate in the Agritech market

Farmers (our customers) have little econ
spending power driving strict cost limitat

Labor shortages and demand for product
sustainable care accelerate autonomous

Autonomous farm robots operate in com
environments shared with cows, people &



Running a farm brings together a diverse range of activities, stakeholders and data sources

We operate in the Agritech market

Farmers (our customers) have little economic power and spending power driving strict cost limitations



Labor shortages and demand for productivity, flexibility, and sustainable care accelerate autonomous robotics.



Agri

Autonomous farm robots operate in complex, dynamic environments shared with cows, people & other moving vehicles



Running a farm brings together a diverse range of activities, stakeholders and data sources

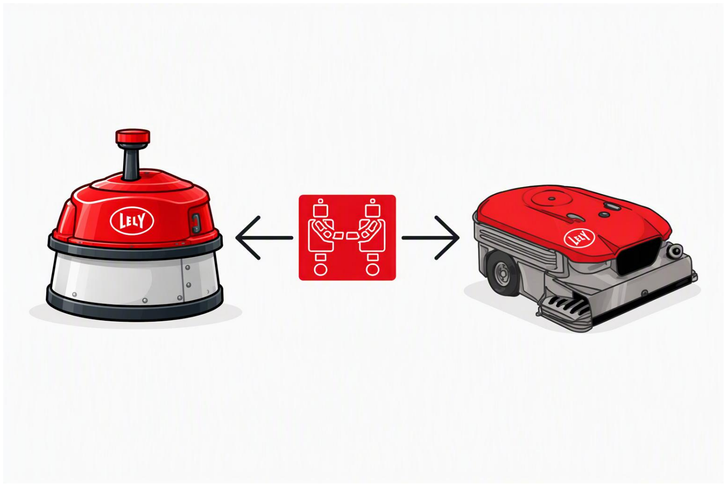


Tech

LELY

Product complexity grows fast

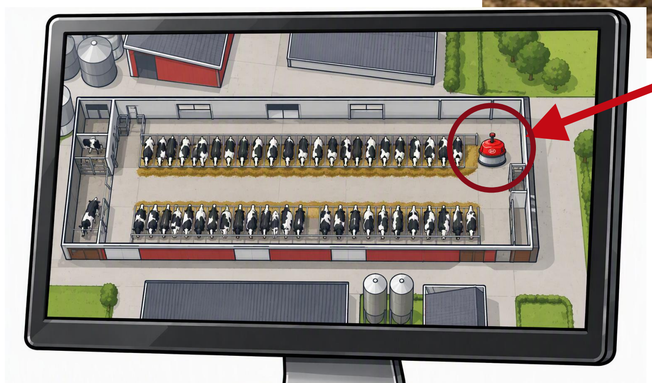
Comply with new Machine Regulation
& with NIS2 and RED and BPA
PFAS, CSRD, Data-act, CRA, etc















System Engineers are keeping it together



Continuous management of user needs, regulatory reqs, Lely-common building blocks & multi-disciplinary interfaces

Guide the teams through projects & Control Cost

Innovate faster with less iterations

Balance customer value of System of Systems with NRE investment

We are becoming a SW company… (selling robots)



SW architects don’t get Hardware?

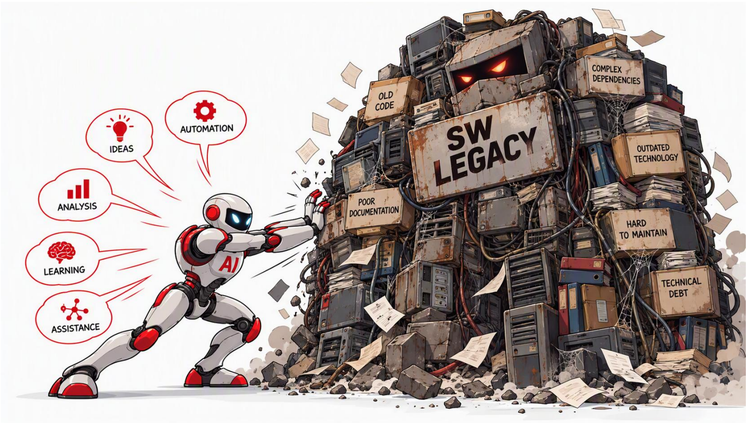
System engineers need to manage interfaces with SW (legacy) & Data

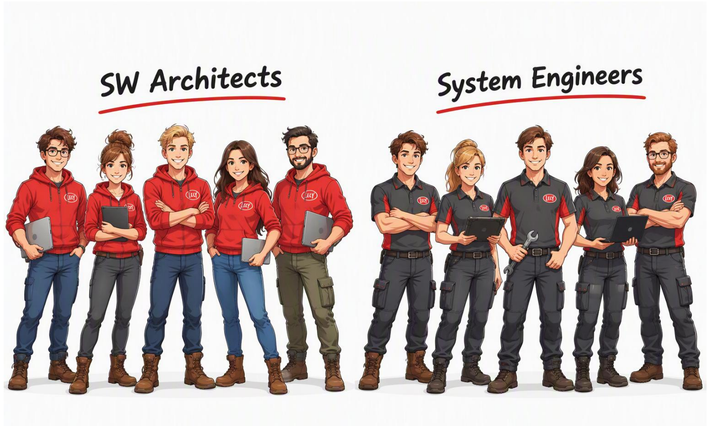
Common language & WoW urgently needed

Complexity of System of Systems grows fast
System Engineering theory falls short
Technically, SoS is mainly SW architecture…

How to win?

Short term





Hire **more** (if you know someone …☺)

Long term

Politics: Regulate only what you are willing to enforce on parties from outside EU

Universities: Solve mixed SW-HW development!




LELY