



AOC Automated Off-load of Cartridges

for Filling lines with manual outlets.

Pilot for R&D facility

RAYA 2023 Finalist Event

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Introduction

Pilot to R&D facility, for Filling lines with manual outlets.

<https://youtu.be/OkHA-5jFydQ>

Drivers

Drivers

Improved process quality

Handling cartridge
carefully.



Drivers

Improved process quality



Handling cartridge
carefully.

Detecting cartridge
overloads.

Drivers

Improved process quality

OPERATIONAL

**Force controlled
actuators.**



Drivers

Improved process quality

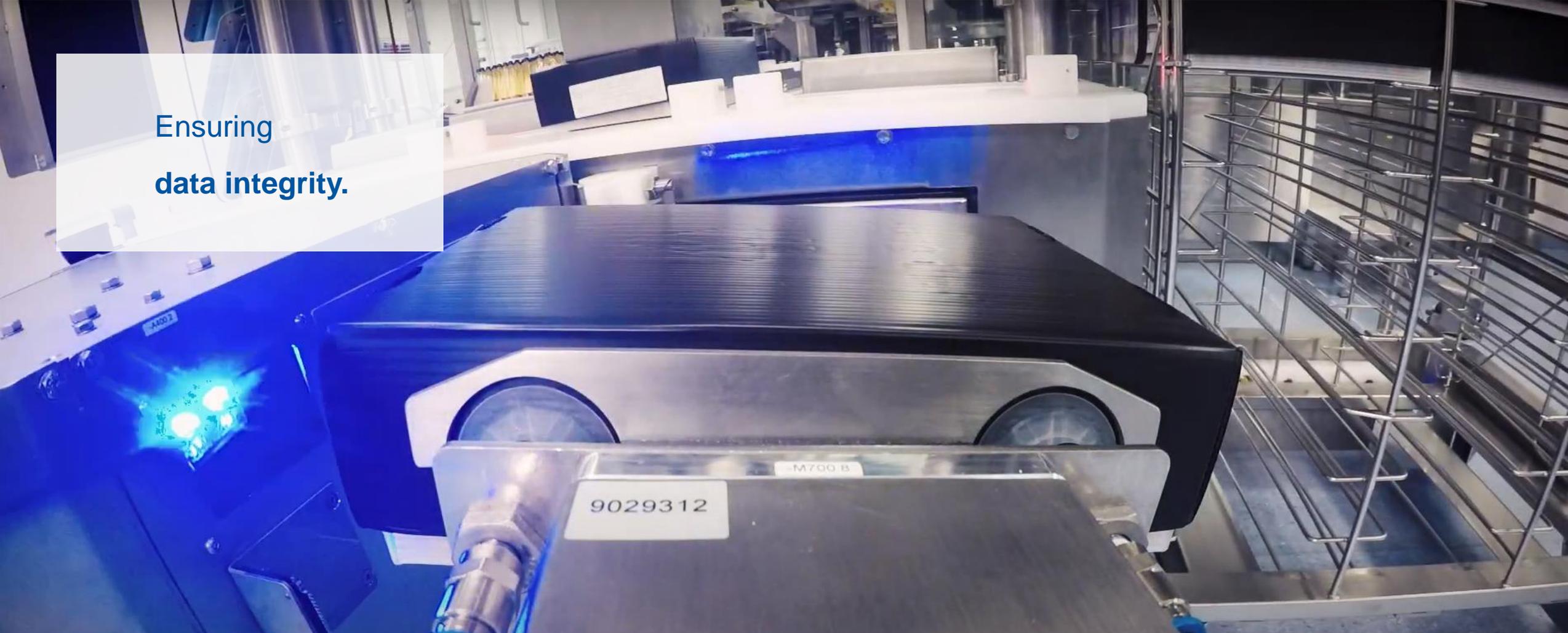
Robotic arms with
force surveillance.



Drivers

Improved process quality

Ensuring
data integrity.



Drivers

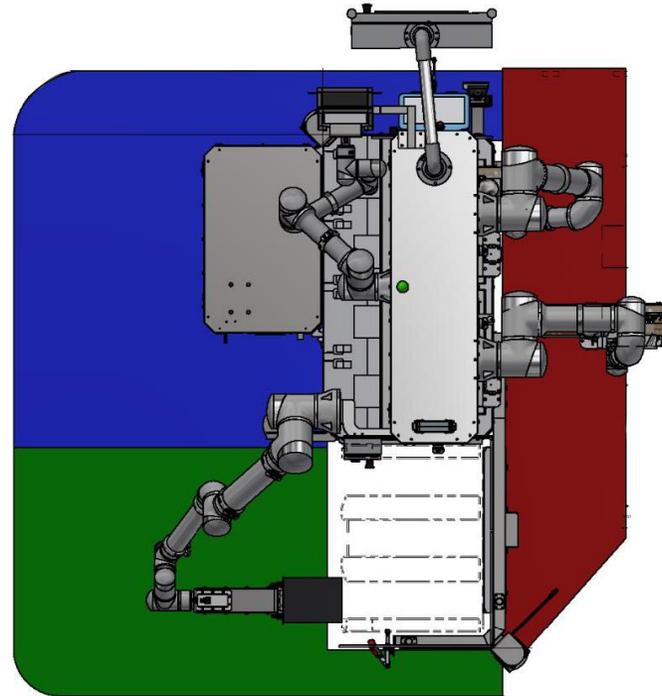
Human protection

Collaborative Robots

Safety scanners

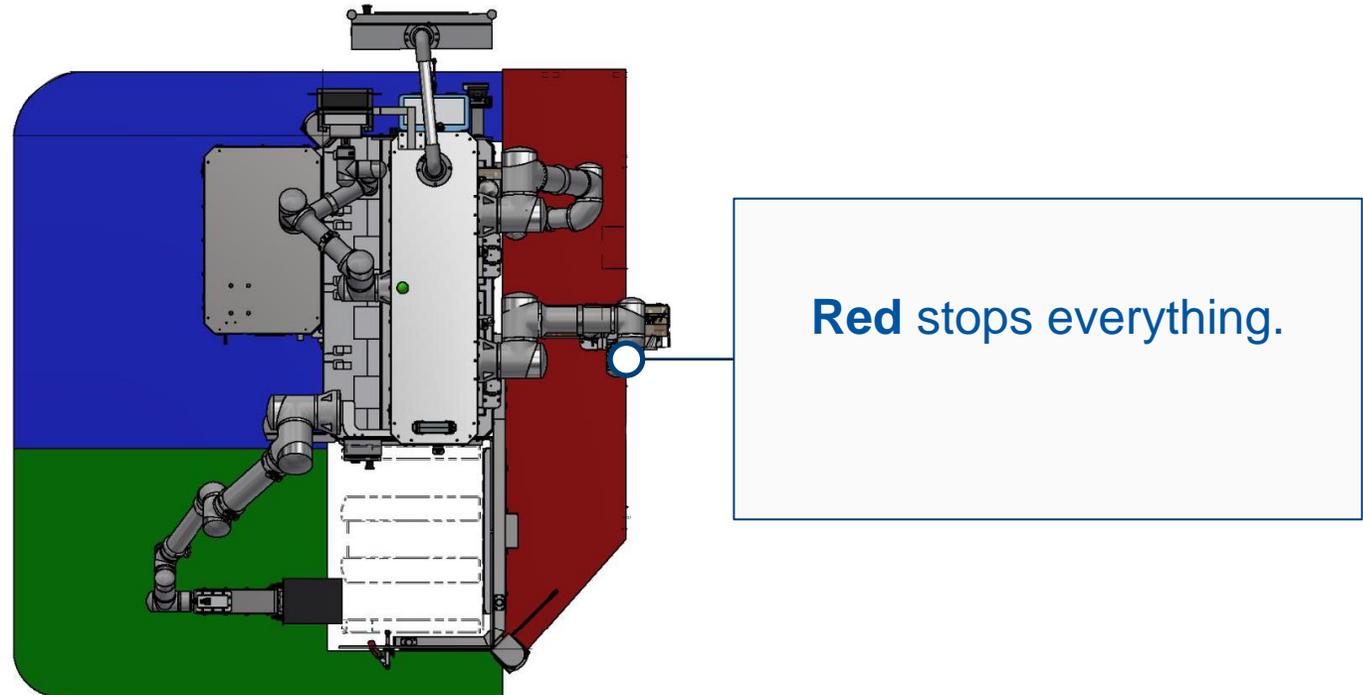
Drivers

Human protection – safety zones



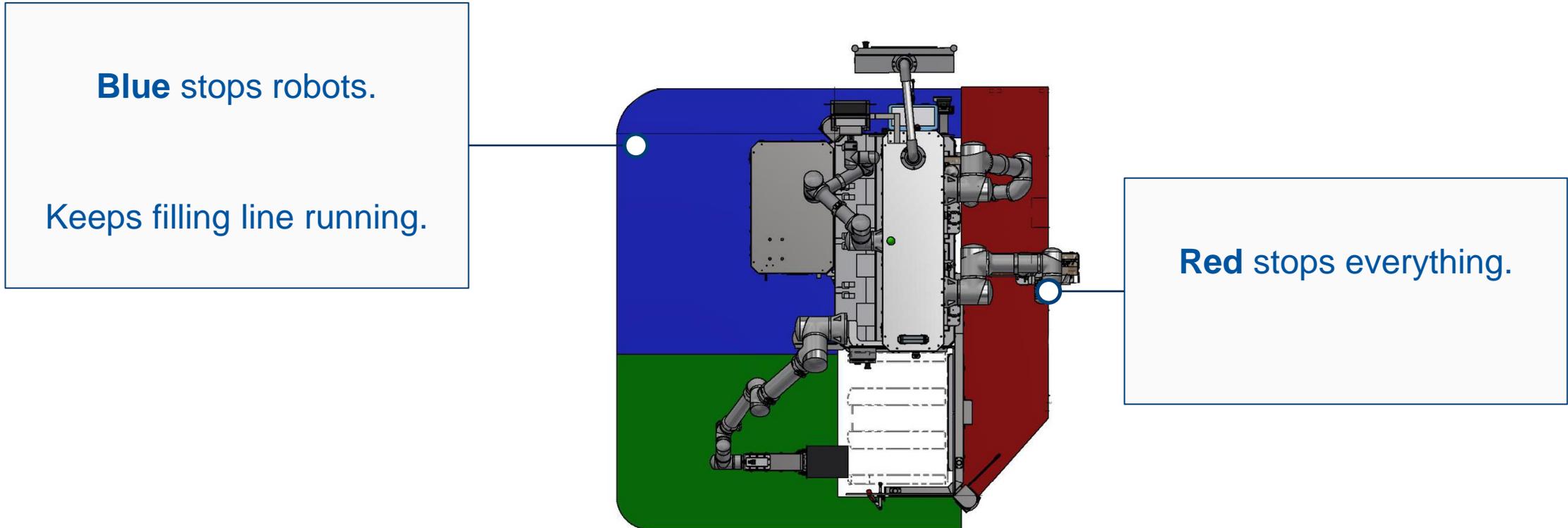
Drivers

Human protection – safety zones



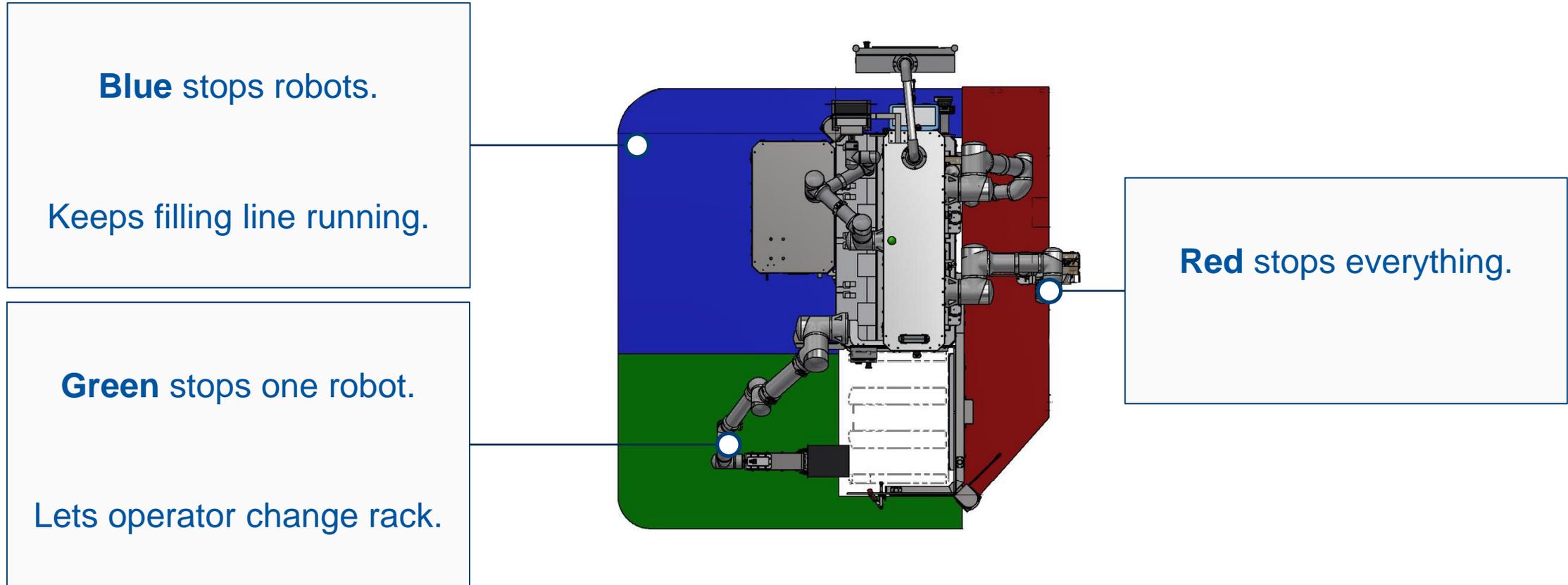
Drivers

Human protection – safety zones



Drivers

Human protection – safety zones



Drivers

Efficiency

+99% up time.

ROBUST SOLUTION
+99 % UP TIME



Drivers

Efficiency

+99% up time.



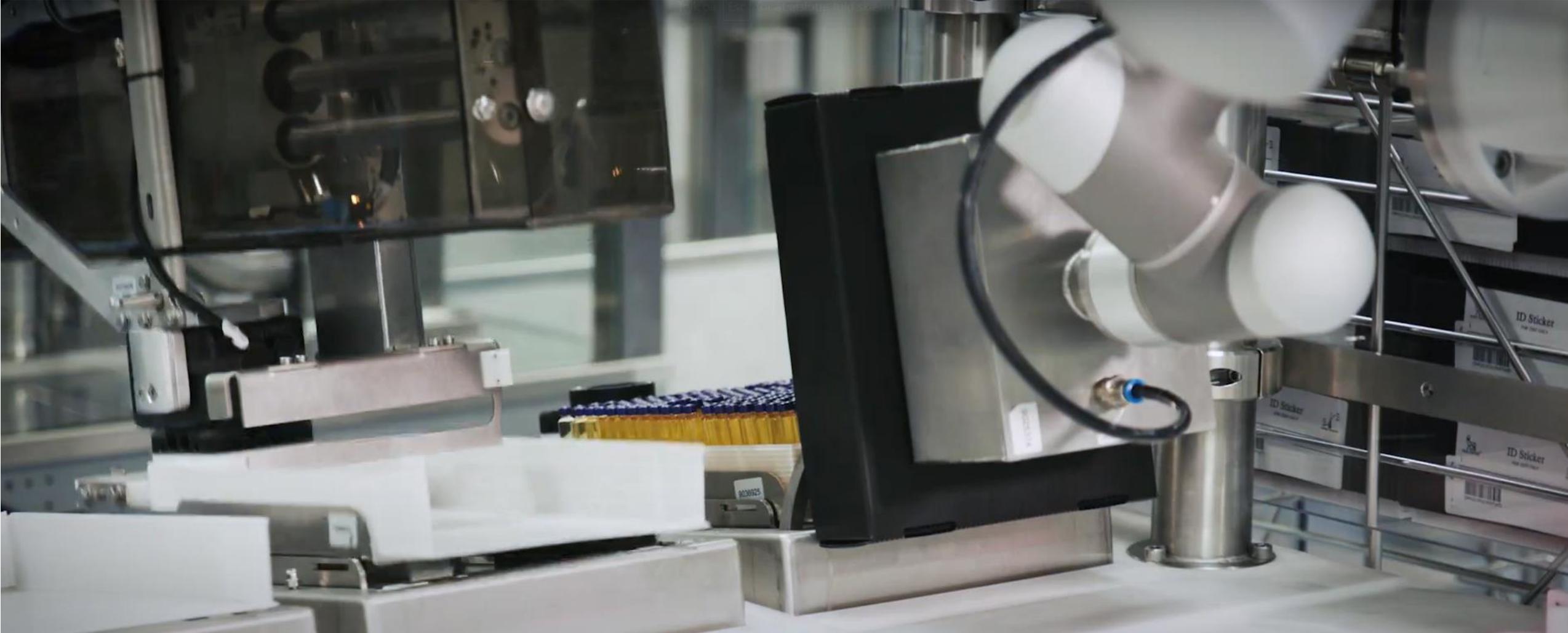
Allows workers to enhance performance of the Filling line.

ROBUST SOLUTION
+99% UP TIME



Drivers

Ergonomics



Drivers

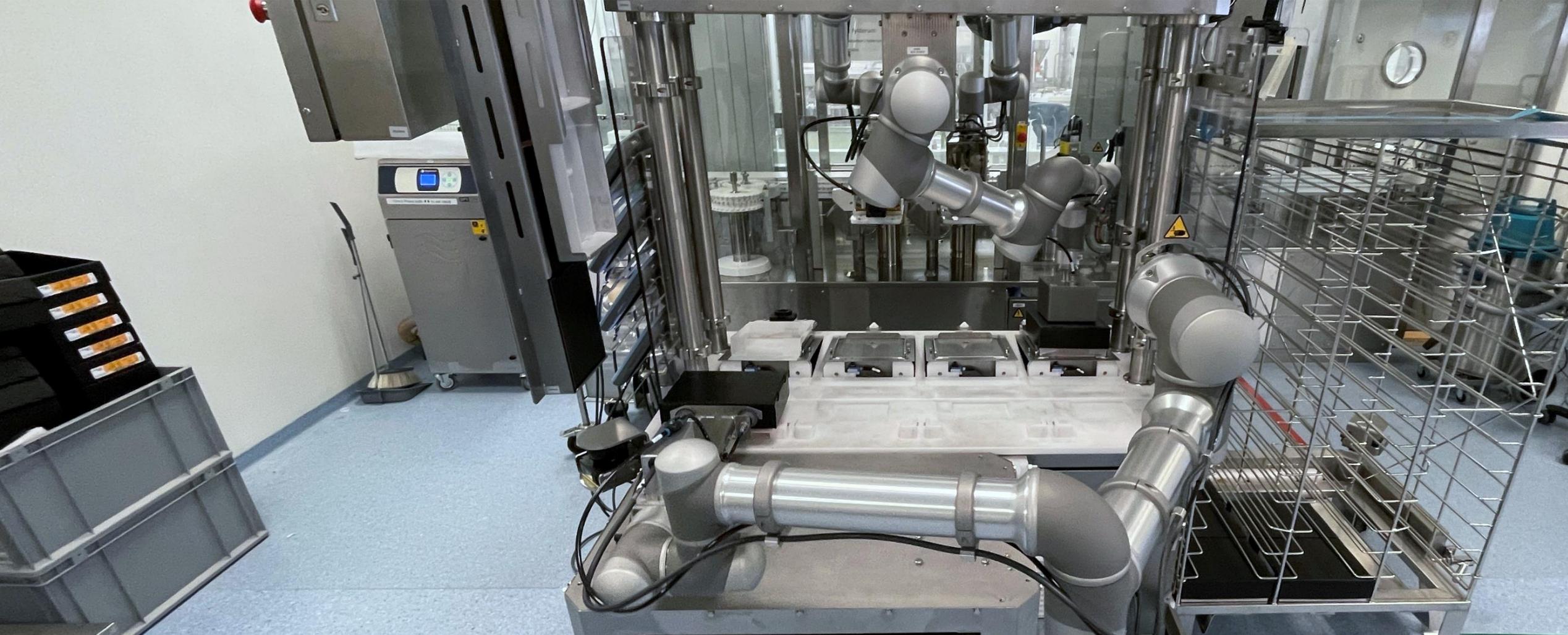
Ergonomics



No need for **repetitive** manual packaging or cartridges.

Drivers

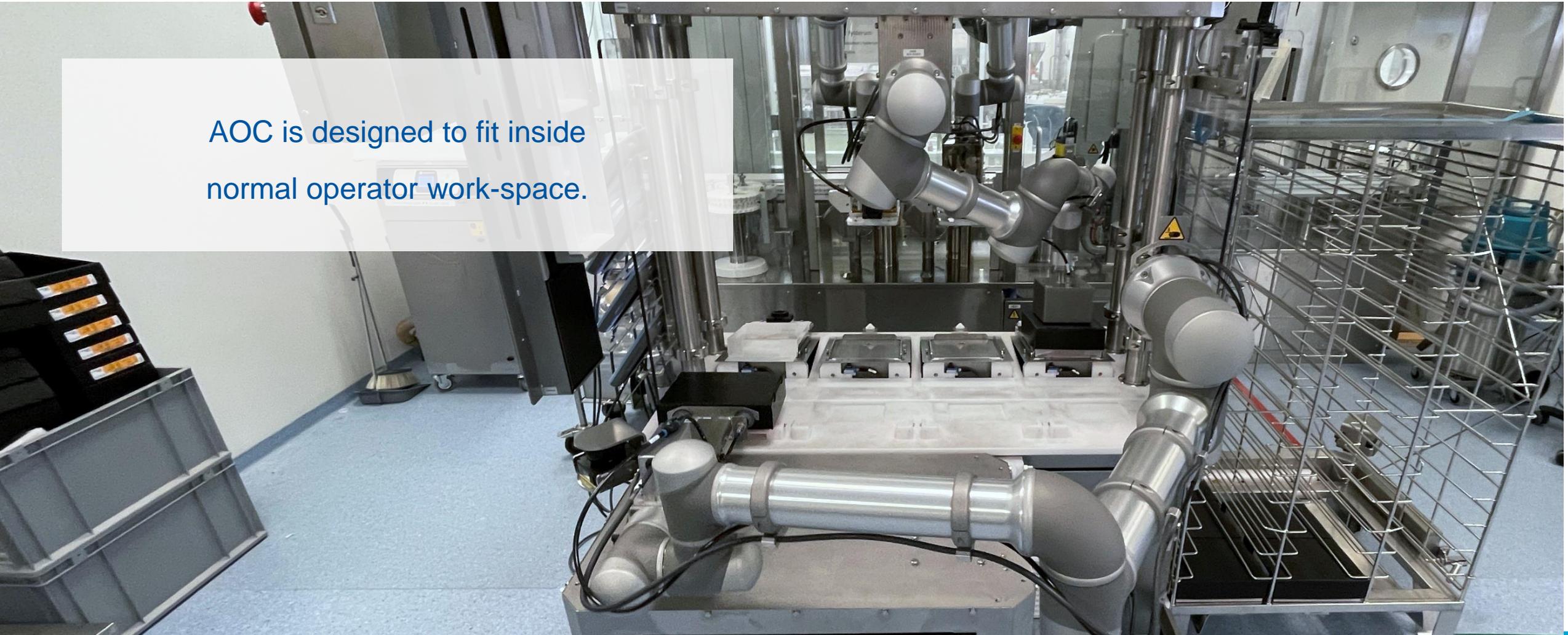
Small footprint



Drivers

Small footprint

AOC is designed to fit inside normal operator work-space.



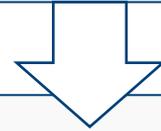
Cost Effectiveness

Cost Effectiveness

AOC **raise** the Filling lines **OEE** by at least 1%.

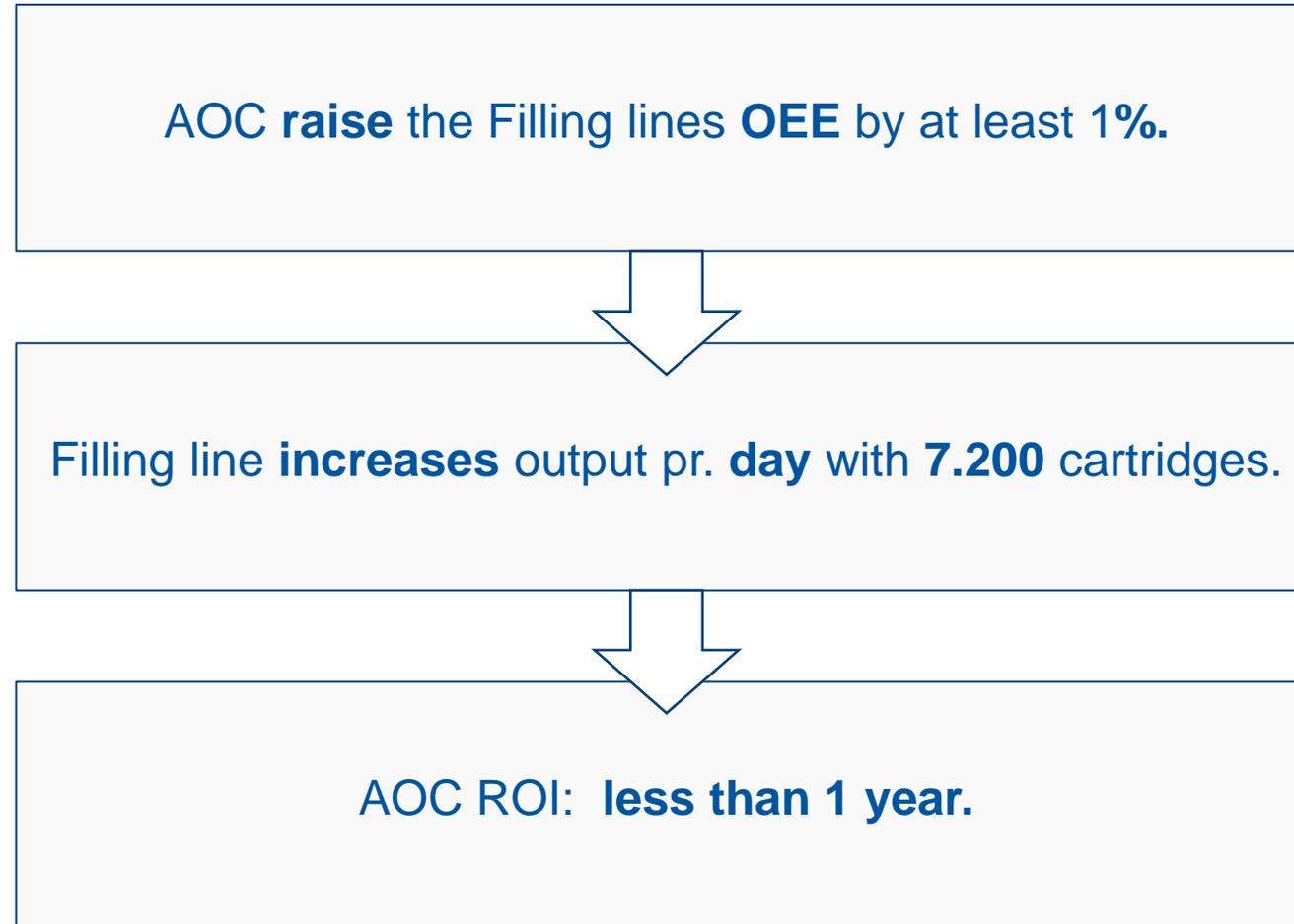
Cost Effectiveness

AOC **raise** the Filling lines **OEE** by at least 1%.



Filling line **increases** output pr. **day** with **7.200** cartridges.

Cost Effectiveness



Area of Application

Area of Application



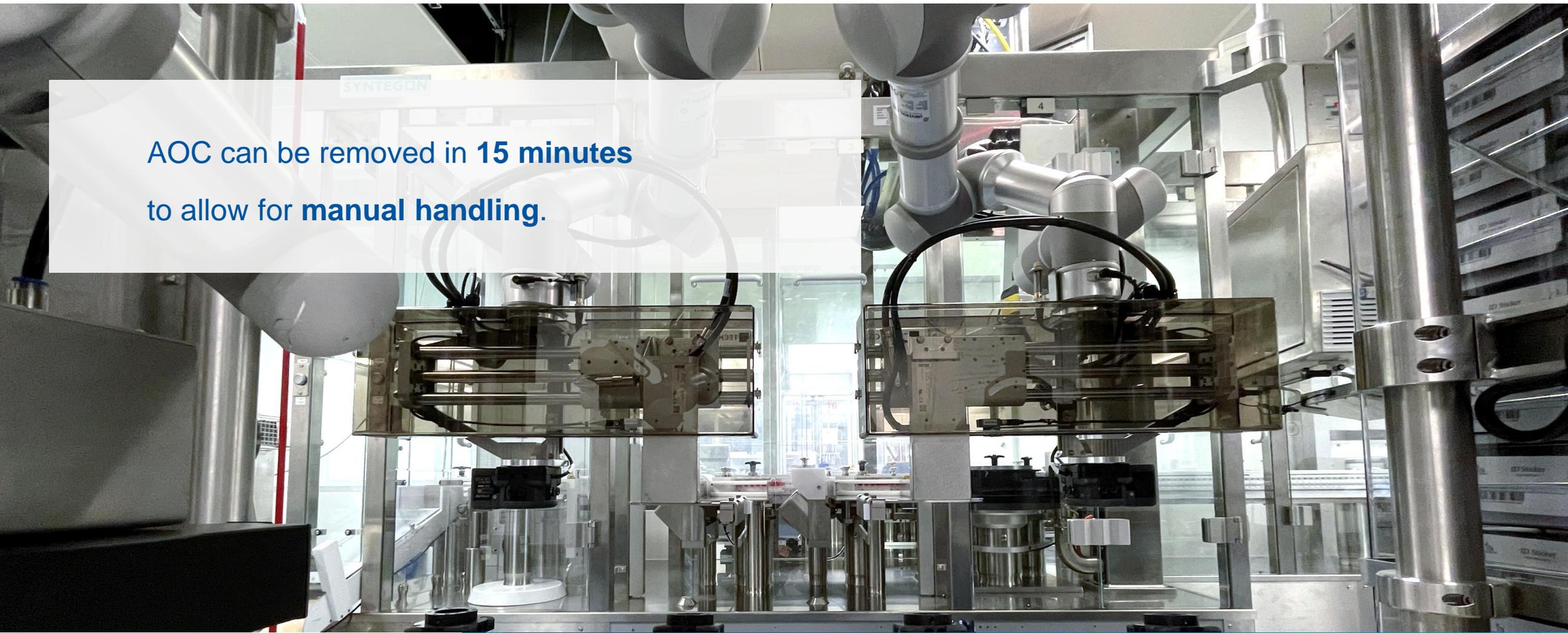
Flexibility

to quickly change to manual handling



Flexibility

to quickly change to manual handling



AOC can be removed in **15 minutes**
to allow for **manual handling**.

Flexibility

to quickly change to manual handling

AOC can be removed in **15 minutes**
to allow for **manual handling**.

AOC can be deployed again in **30 minutes**.
Interfacing **robots** calibrates them self by
'feeling' the filling line.

Integration

Real life example



Integration

Real life example



Integration

Real life example

Preparation

- Modify Filling line outlet.
- Prepare utility cable.



Integration

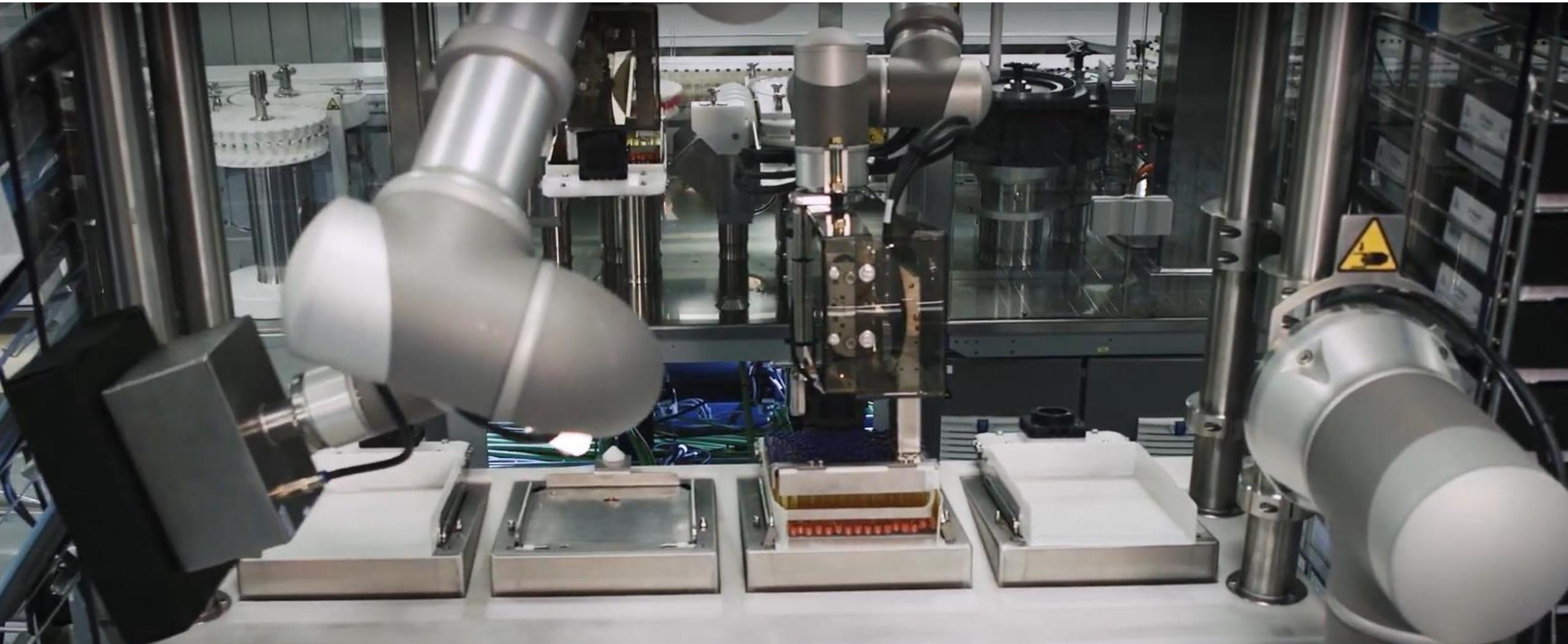
Real life example

Integration

- Roll in the AOC. (One unit)
- Plug-in and power up.
- Calibrate.
- Ready.



Final message



Final message

The AOC should win for being a...

Performance robust

Small footprint

Low risk machine.

That can be rolled out to the
customers existing filling lines.

