



# Automation to the MAX: Robotic vial handling – PEWO-flex ROLAND WOELFLE, PESTER PAC AUTOMATION

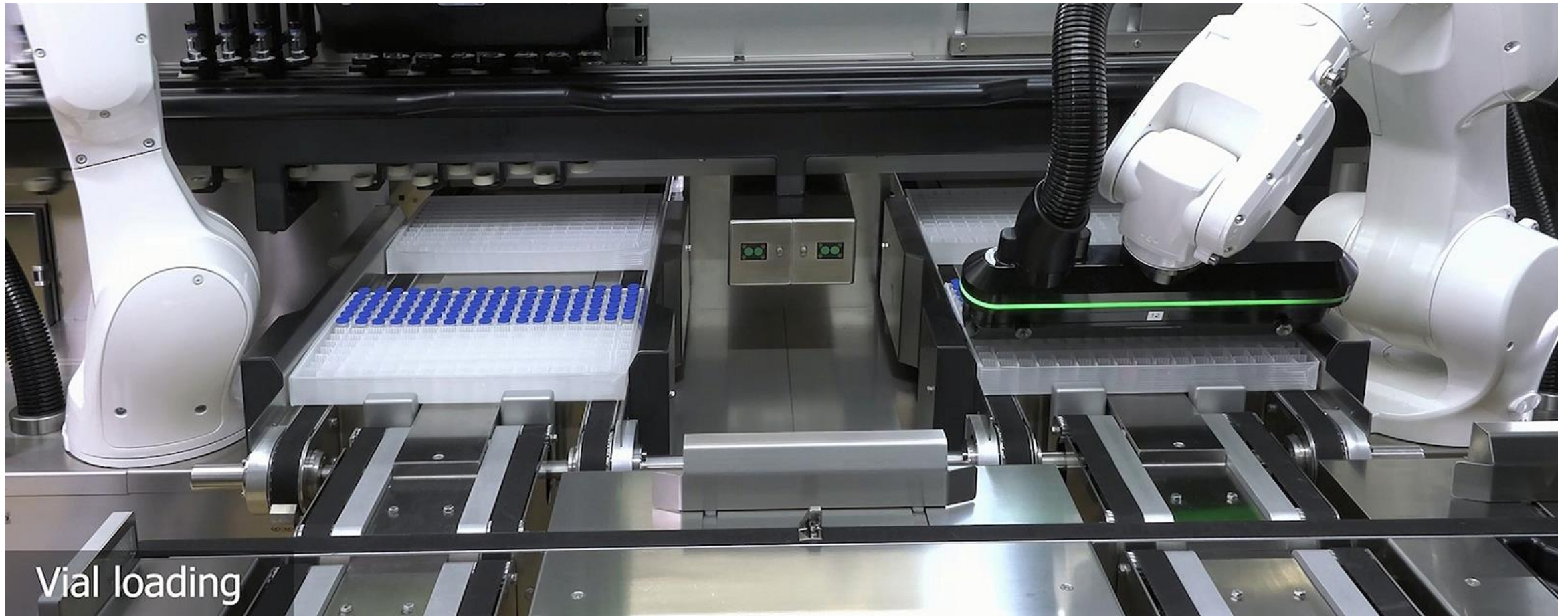
RAYA 2024 Finalist Event



// automation to the MAX

// 400 vials per minute

// 7 robots



Vial loading

# Drivers

// manual

// repetitive

// quality critical



# Drivers

// no glass-to-glass



// condition monitoring



// easy cleaning



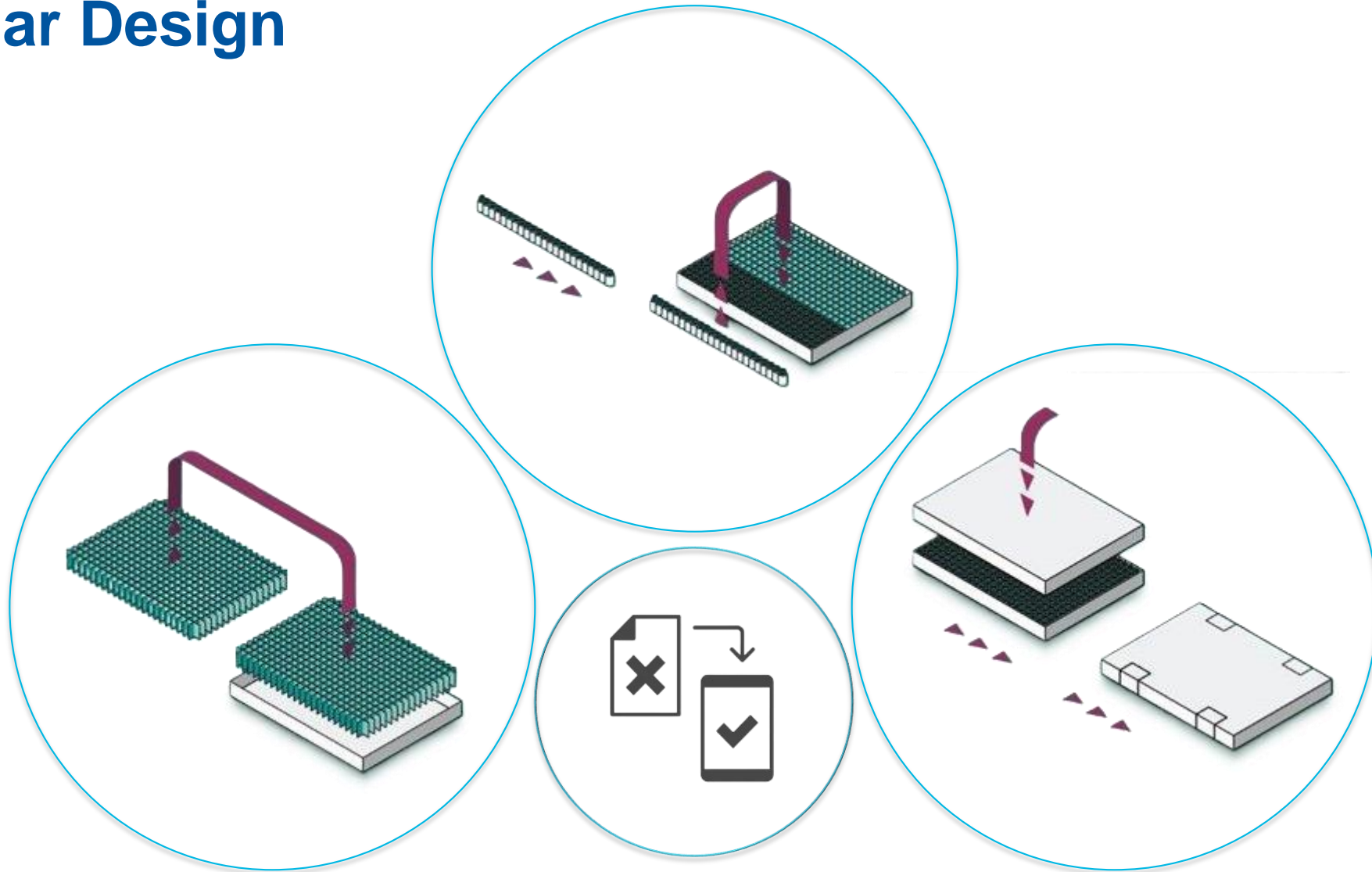
// high-end gmp



// usability



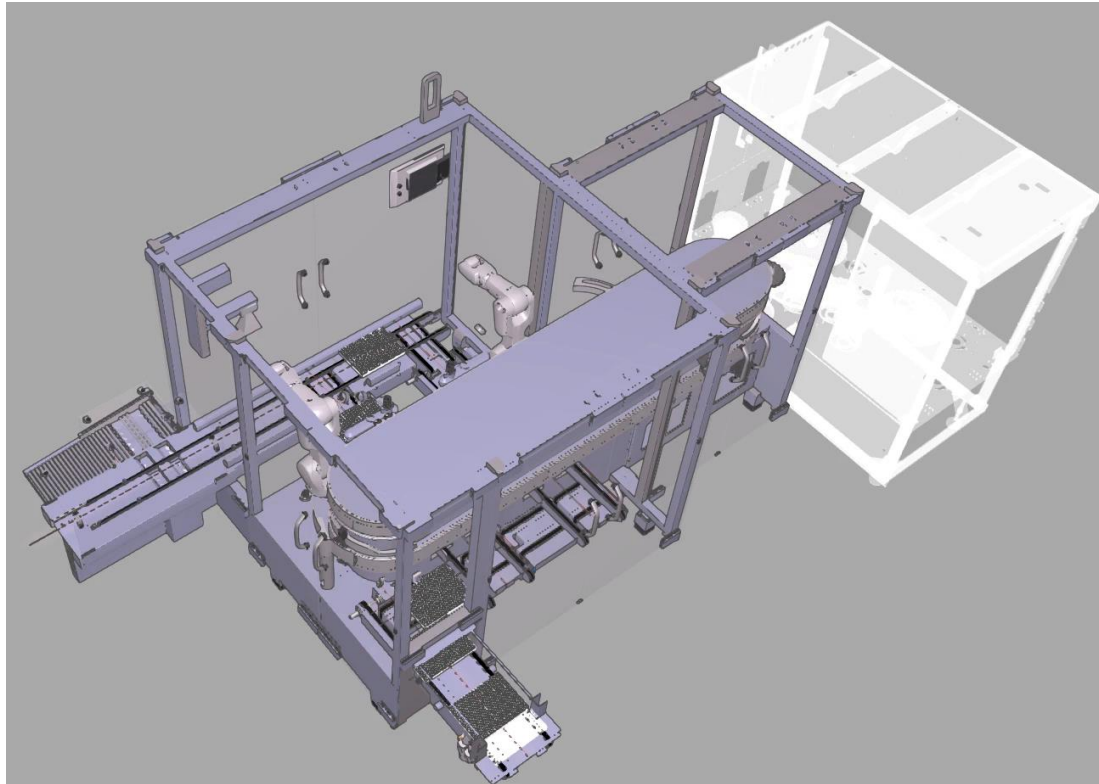
# Modular Design



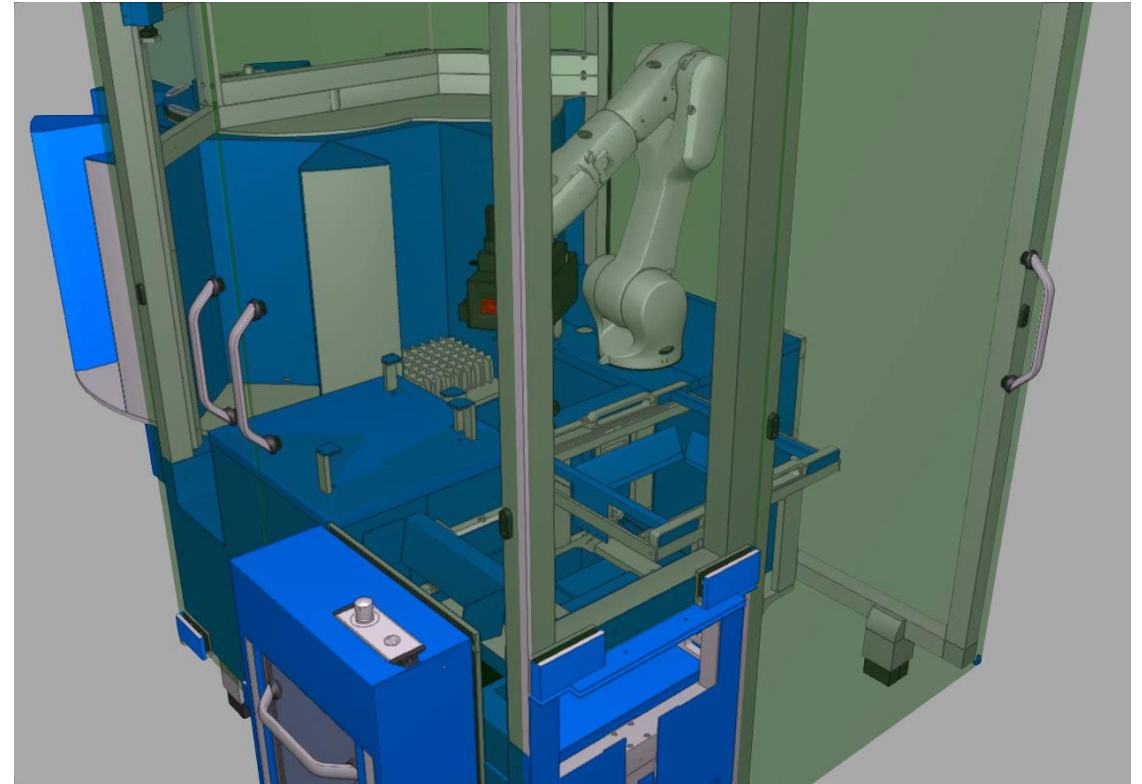
// paperless mes integration

# Modular Design

// material flow simulation

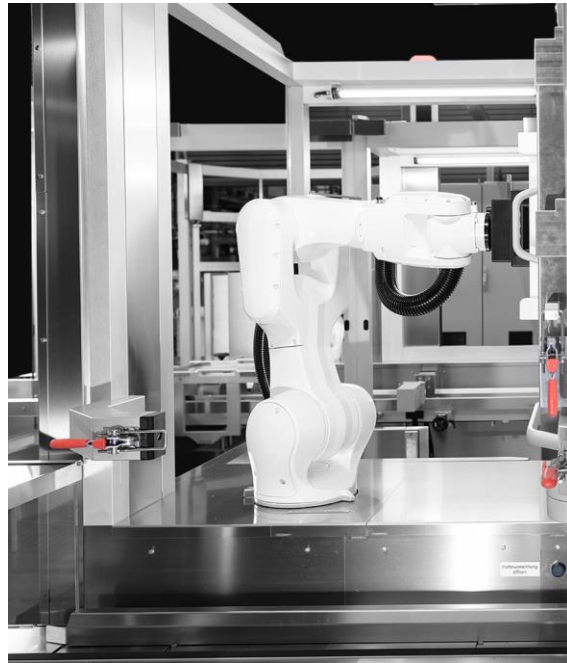


// robot path optimization

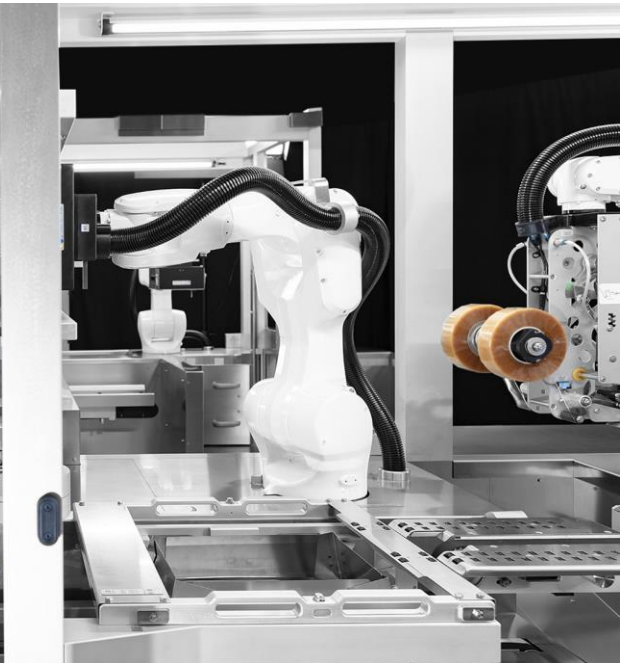


# Application

// tray and lid forming



// box loading



// divider insertion



// closing and labeling



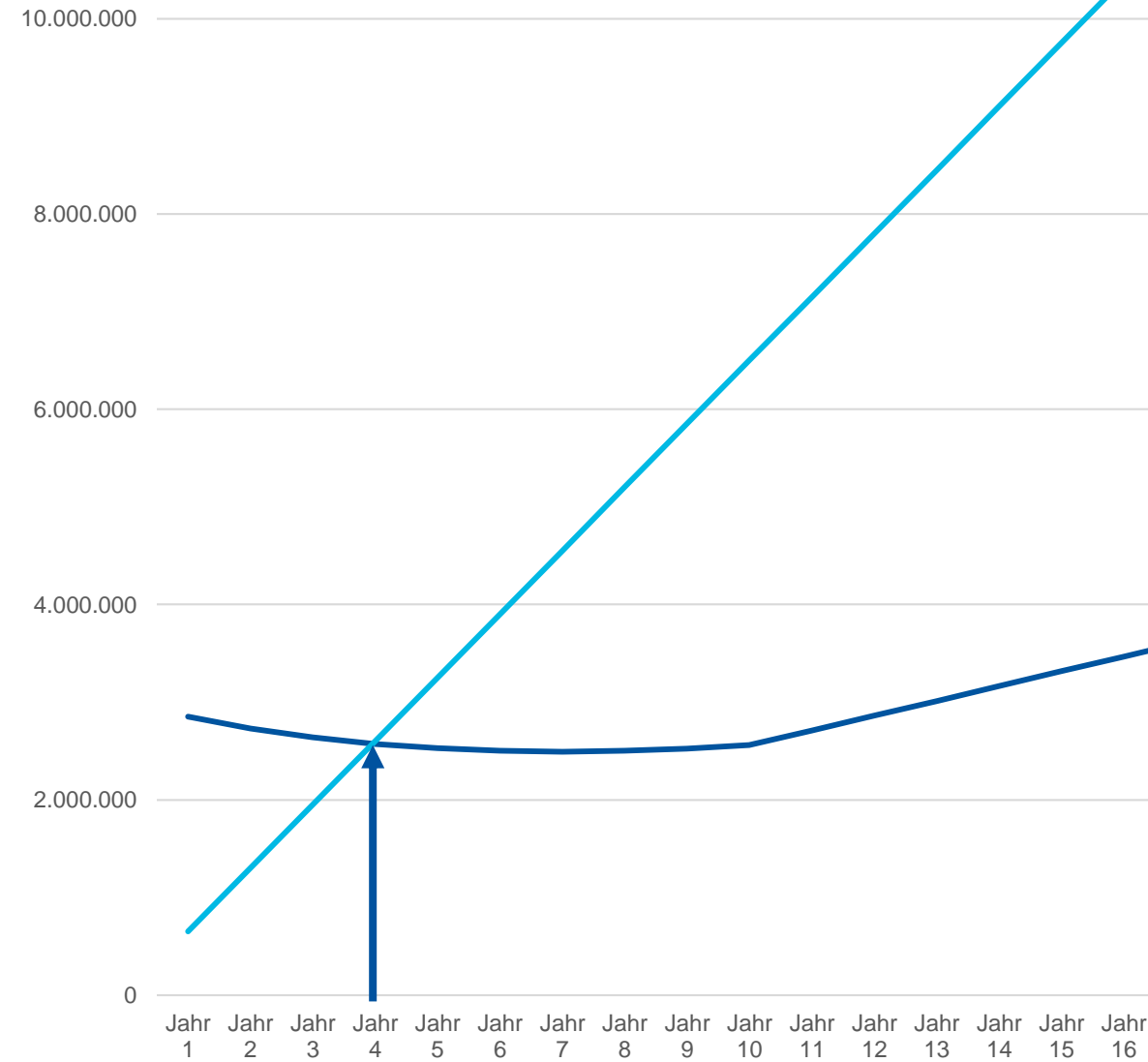


# ROI

// one operator VS five worker

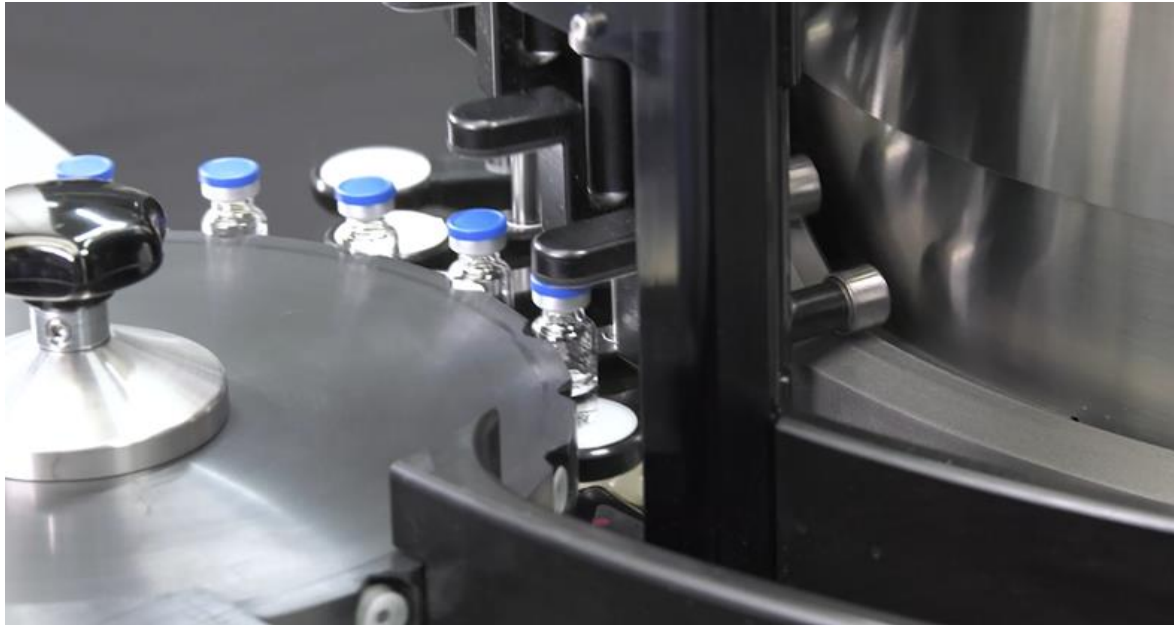
// two-shift calculation

- initial investment 3 mio. €
- depreciation over 10 years
- annual cost per operator 65.0 k€
- annual cost of equipment 36.5 k€



# Integration

// full synchronization



// mes & batch report



# Integration



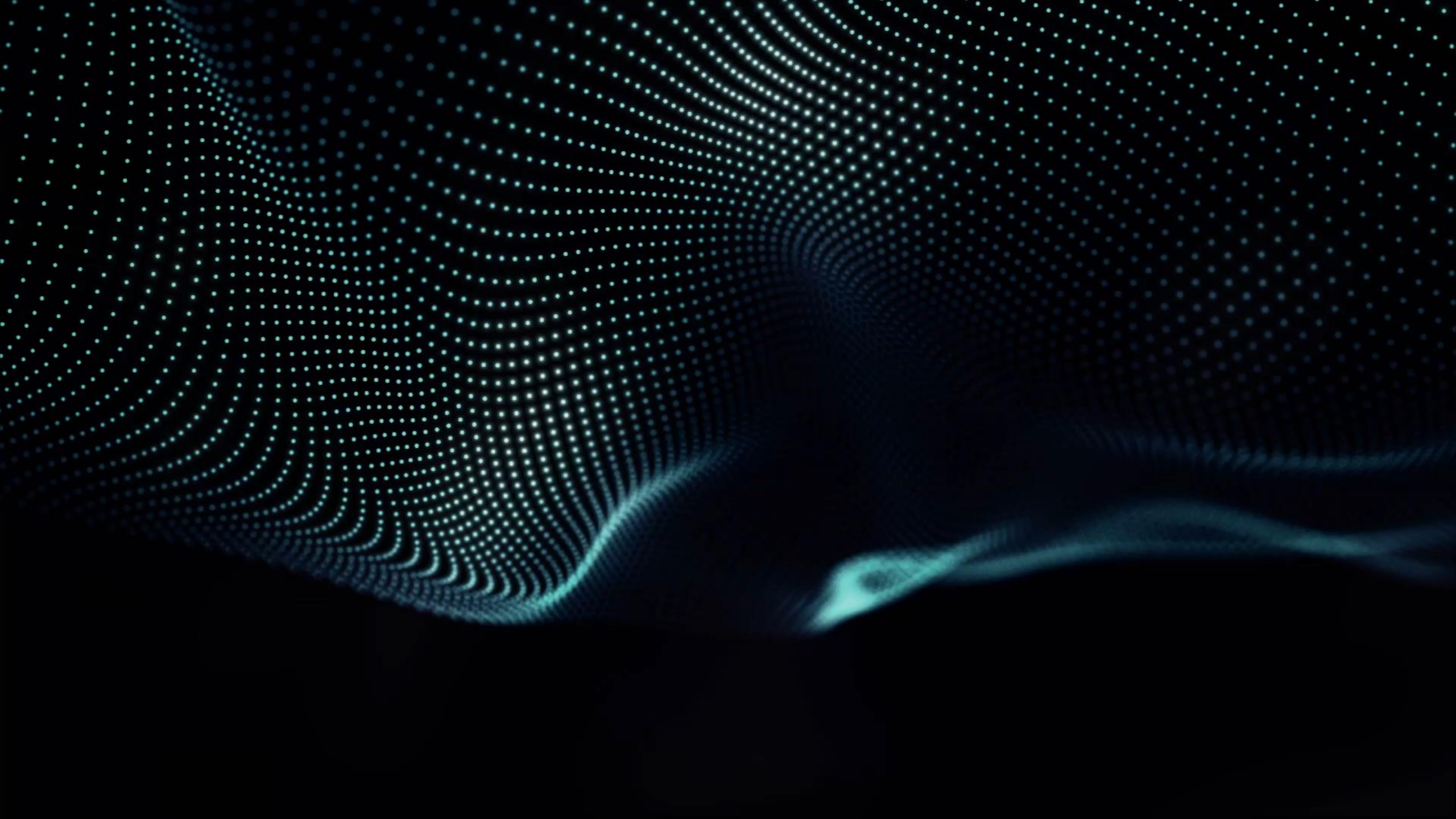
# Flexibility

// from 2R to 30R



// fast and flexible





**Got it? – Get it 😊**

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