MES & Industry
INTERNATIONAL SUMMIT 4.0
Connect for a smarter future
ALFÂNDEGA DO PORTO
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ASMPT
Unleashing the Power of Software: Revolutionizing Factories for Future Success

What is more expensive?

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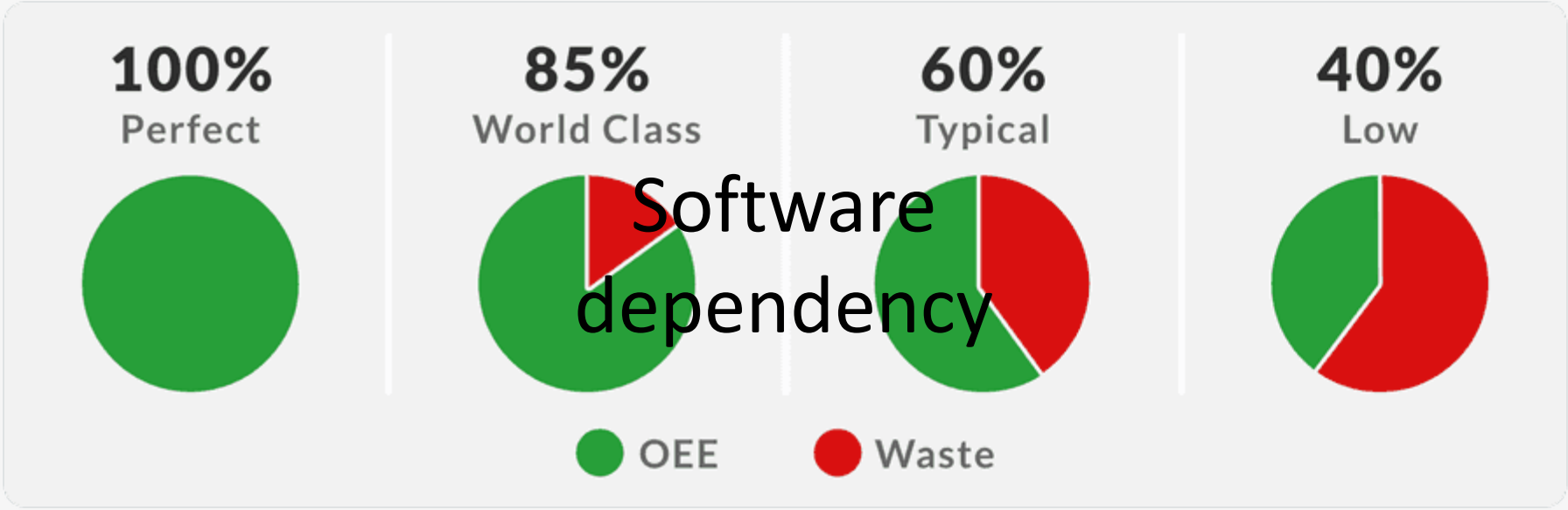
Overall Equipment Effectiveness

(Availability x Performance x Quality)

Connect for a smarter future

All Time
Planned Production Time
Schedule Loss
Run Time
Availability Loss
Net Run Time
Performance Loss
Fully Productive Time
Quality Loss

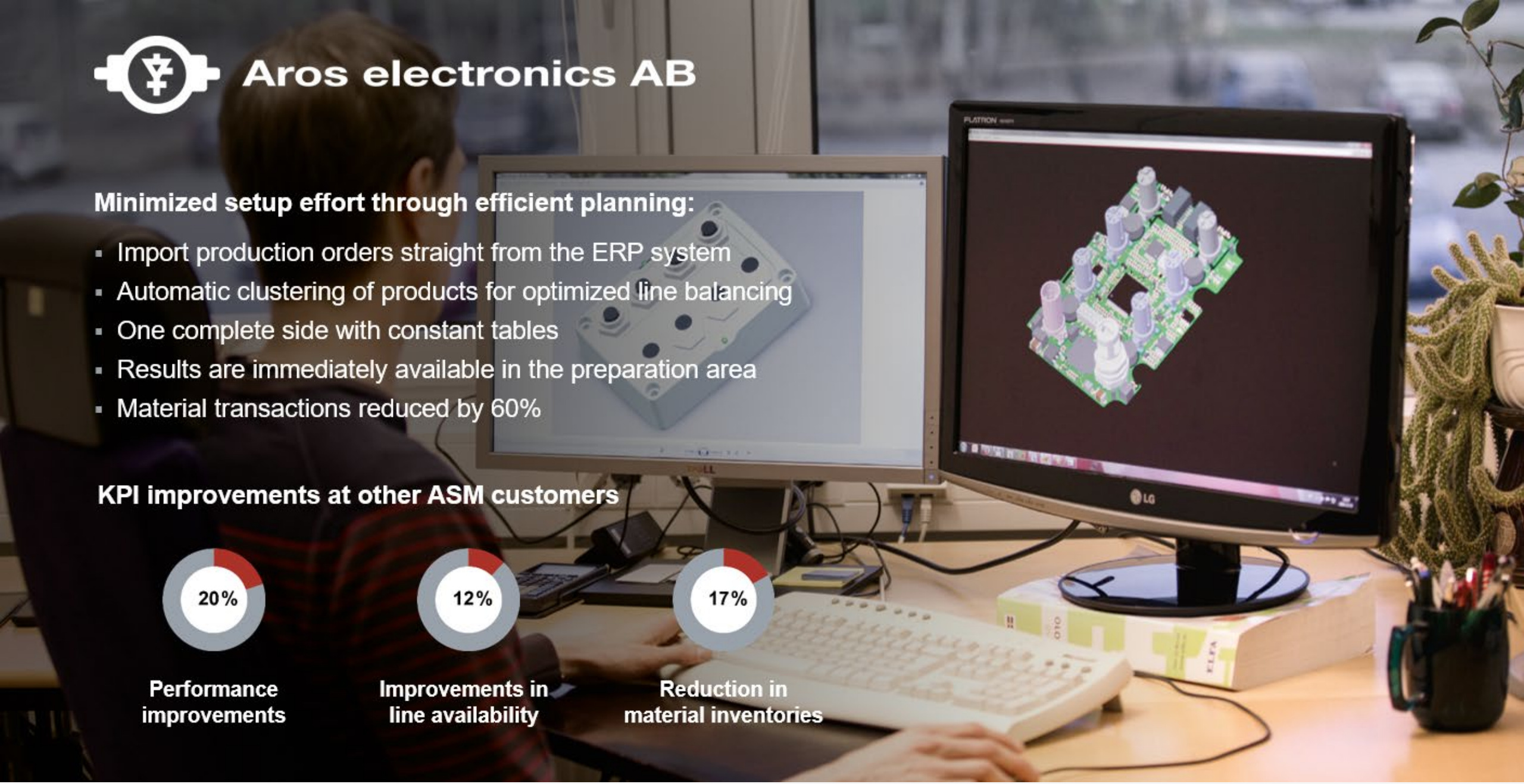


Software dependency

HIGH

LOW

Aros electronics AB



Minimized setup effort through efficient planning:

- Import production orders straight from the ERP system
- Automatic clustering of products for optimized line balancing
- One complete side with constant tables
- Results are immediately available in the preparation area
- Material transactions reduced by 60%

KPI improvements at other ASM customers

Performance improvements

Improvements in line availability

Reduction in material inventories

Zero downtime during New Product Introductions (NPIs)

- Offline generation of printing and placement programs
- Virtual printing and placement before production
- Automatic transfer of programs to the line
- Expert system for autonomous process optimization

KPI improvements at other ASM customers

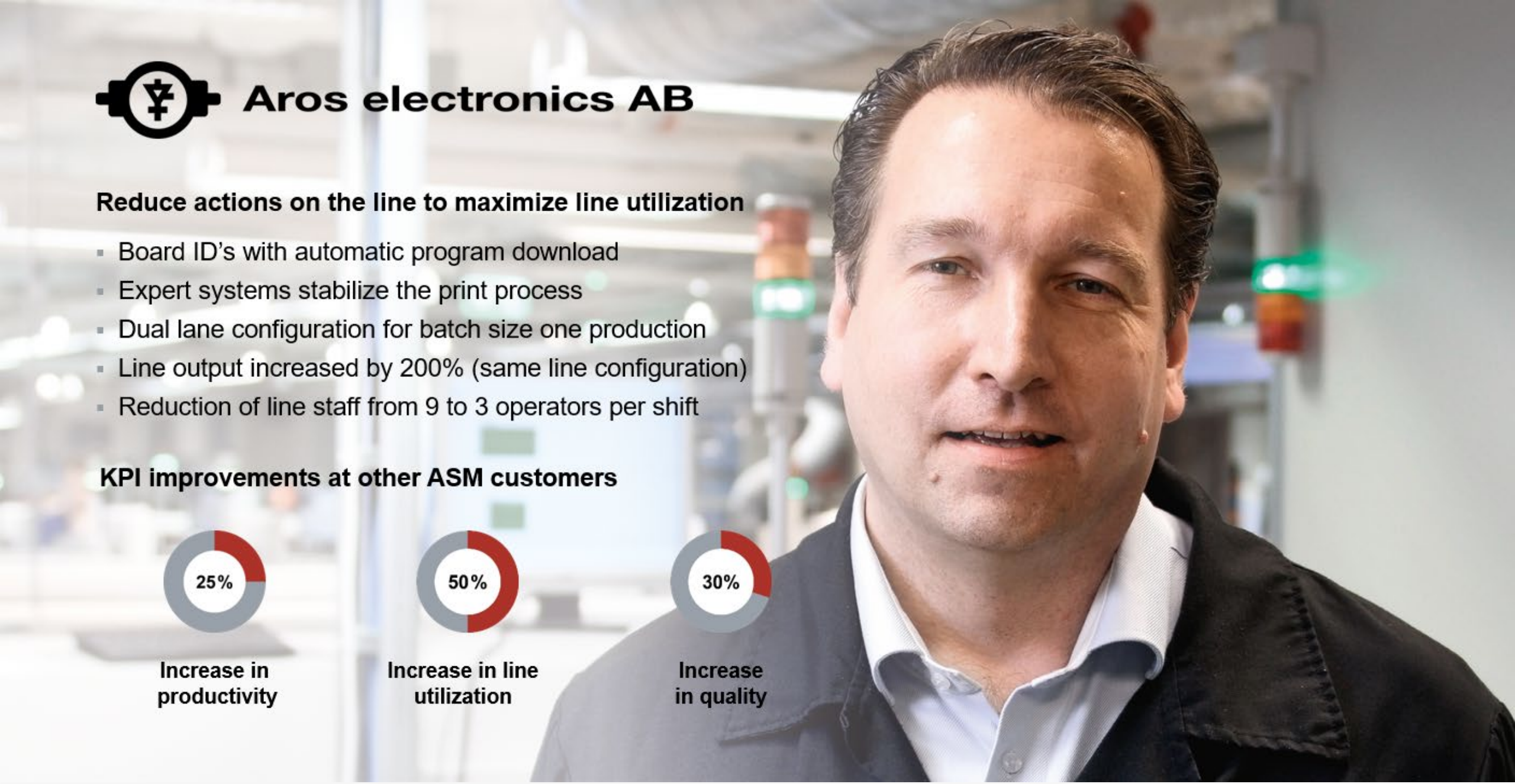
Reduction in design and optimization costs

Reduction in setup times

Reduction in material costs

RENA
Stabilize the print process to maximize throughput
DFM HealthCheck before production starts
Recommended parameters stabilize the process
Automatic offset correction and wipe cycle optimization
Autonomous DOE's to improve results
SMT line is four times faster than before
90% yield improvement
KPI improvements at other ASM customers
60%
Reduction in operator assists
20%
Increases in yield
40%
Increase in throughput

Aros electronics AB



Reduce actions on the line to maximize line utilization

- Board ID's with automatic program download
- Expert systems stabilize the print process
- Dual lane configuration for batch size one production
- Line output increased by 200% (same line configuration)
- Reduction of line staff from 9 to 3 operators per shift

KPI improvements at other ASM customers

Increase in productivity

Increase in line utilization

Increase in quality

VEGA

Highly efficient setup preparations process

- One operator handles offline setups for 3 SMT lines
- LEDs and target track guidance for fast and easy setup preparation
- Significantly reduced material transactions
- 30% time savings when moving materials to/from storage
- 30% space savings thanks to automatic storage systems
- Twice as fast in the setup preparation area

Reduction in material movements

Reduction in storage space

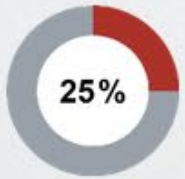
Reduction in setup time

VELANKANI

Increase transparency to optimize material flow

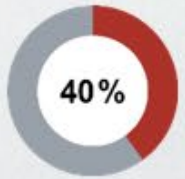
- Transparent, paperless material management
- Optimized material flow with automated line side stock
- Reduction of material-related line stops and setup errors
- Operators per line reduced from 5 to 3 (target is 1)
- 70% increase in throughput (same line configuration)
- 1,300 spliced reels per shift

KPI improvements at other ASM customers

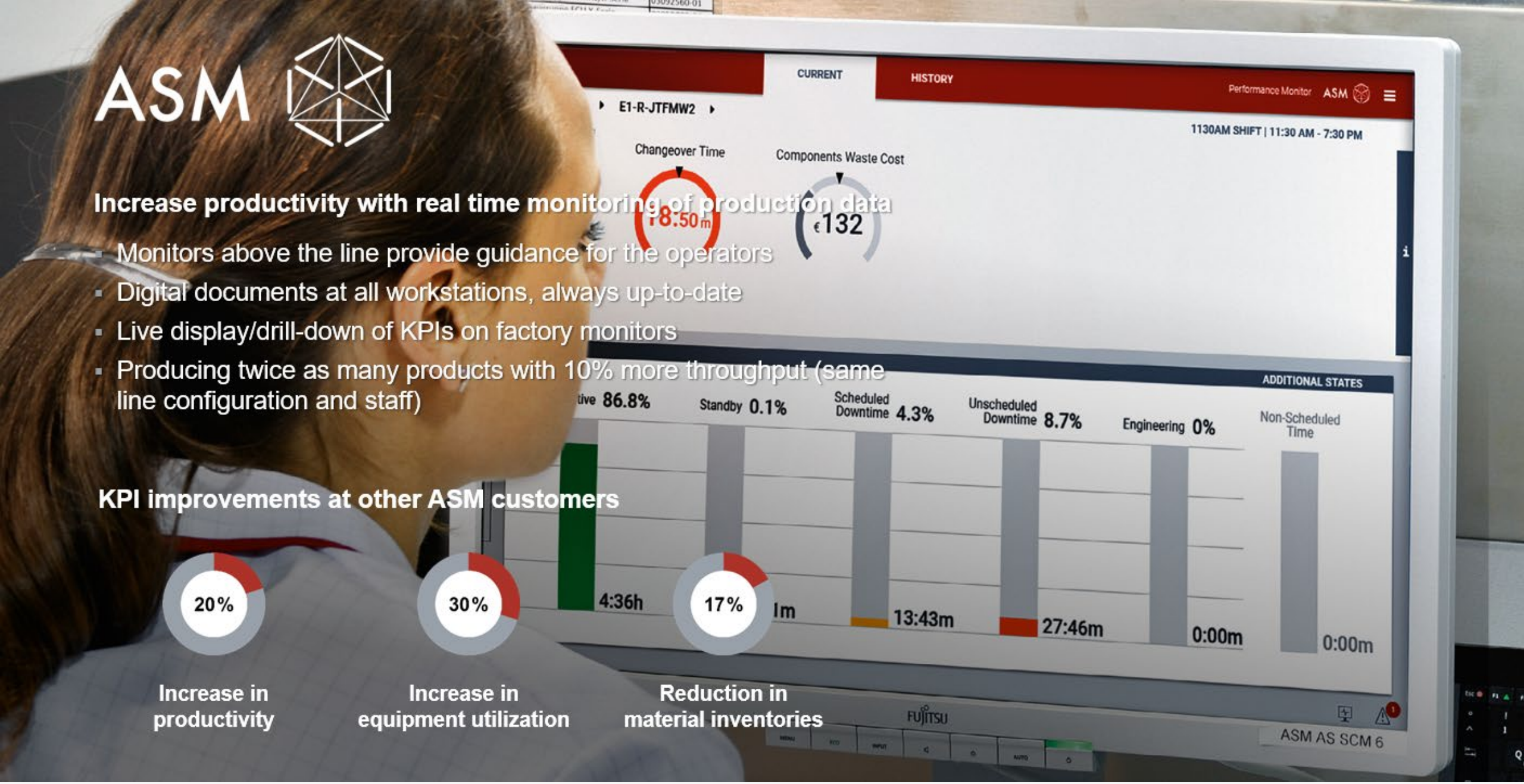


Reduction in material procurement effort

Less line downtime



Reduction in material inventories



Increase productivity with real time monitoring of production data

- Monitors above the line provide guidance for the operators
- Digital documents at all workstations, always up-to-date
- Live display/drill-down of KPIs on factory monitors
- Producing twice as many products with 10% more throughput (same line configuration and staff)

KPI improvements at other ASM customers

Increase in productivity

Increase in equipment utilization

Reduction in material inventories

CIG

Comprehensive automation through factory integration

- Two highly automated SMT lines with a downstream robot-supported line for final assembly, testing and packaging
- All equipment is fully integrated and controlled by CIG cloud
- Line staff reduced from 63 to 13 operators per shift
- First-pass yield improved by 2%
- Lead time reduced from 5 to 2 days

Reduction in operator assists

Increases in yield

Reduction in lead time

The integrated smart factory
When MES meets “specific applications”

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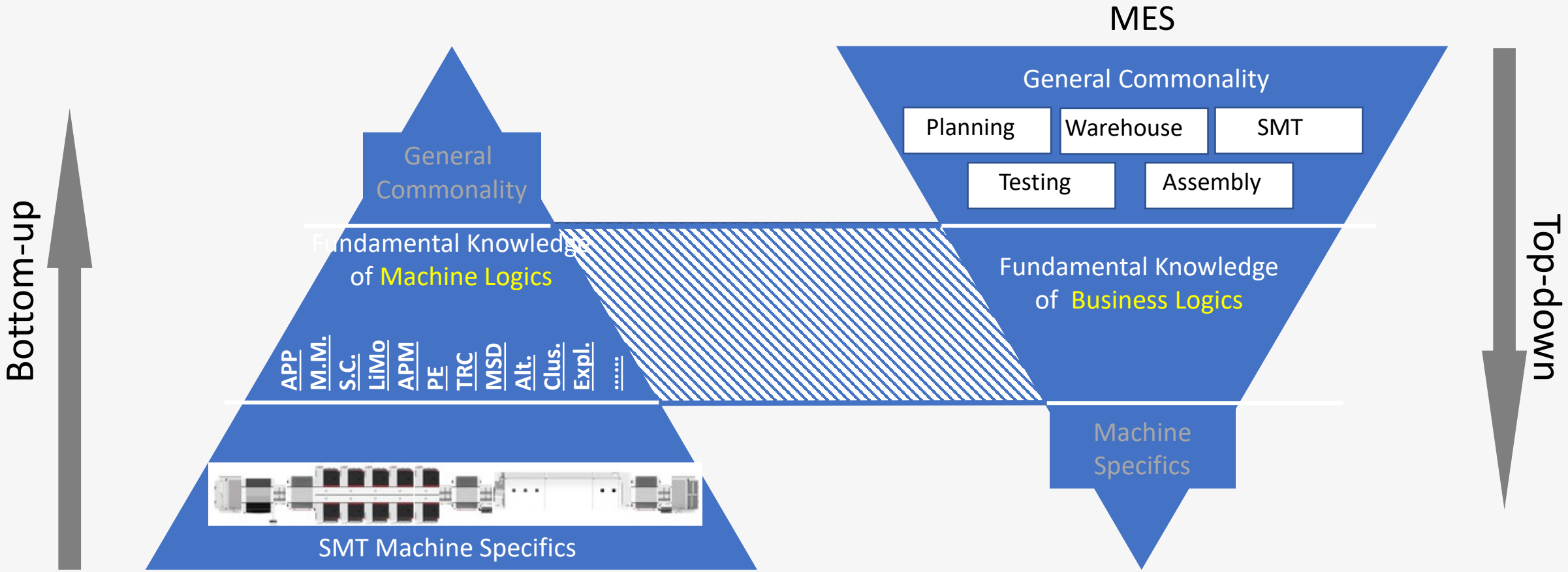
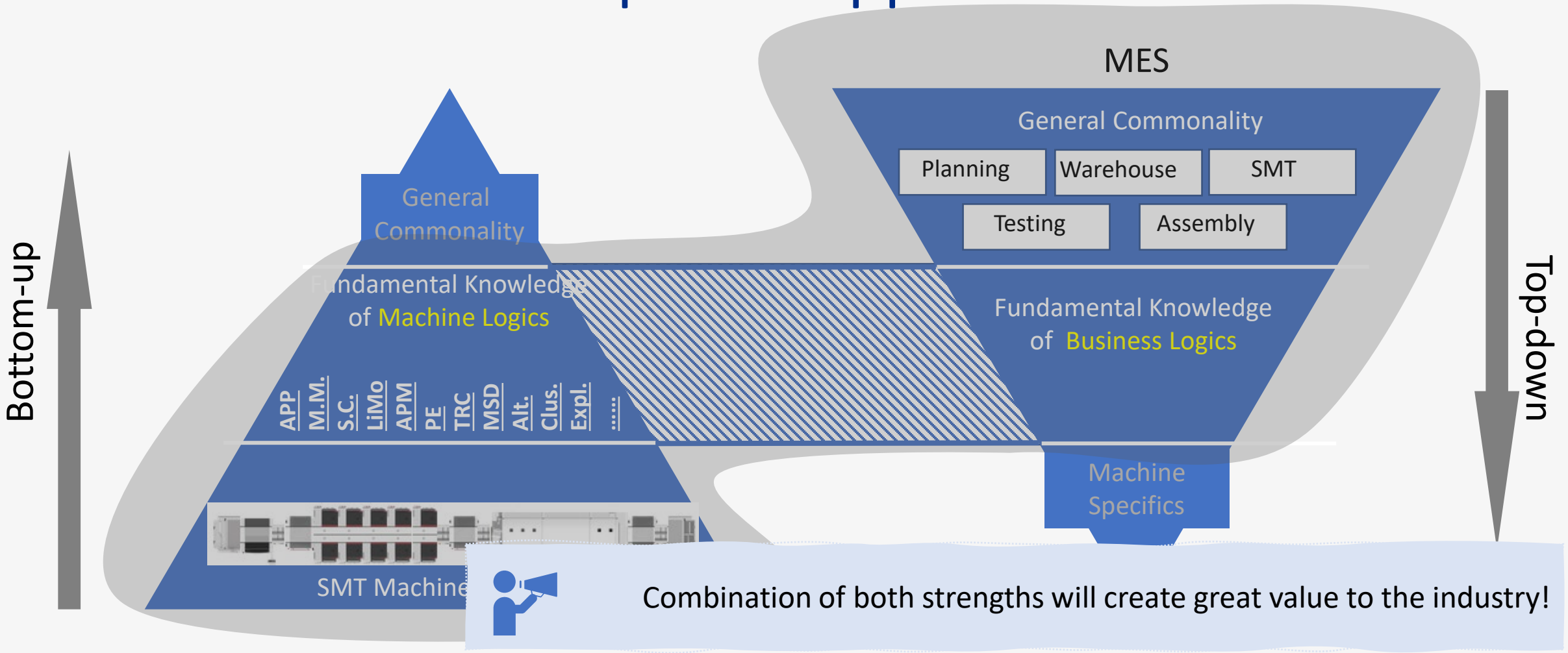


The integrated smart factory
When MES meets “specific applications”



THANK YOU!

Your email