



Automation in THT Production SEHO StreamLine: Key to Securing Competitiveness

Complete Solutions for Soldering Processes and Automated Production Lines

SEHO StreamLine

Challenges in THT Manufacturing

1

Product variety

Increasing number of assemblies and variants.

2

Fluctuations in demand

Flexible adjustment of quantities.

3

Quality requirements

Consistently high level required.



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Human Factor in the Production Process



Sick leave

result in production delays



Shortage of skilled workers

rising labor costs
higher susceptibility to errors

TM

Traceability

complete process
documentation required

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Actual Situation in THT Productions

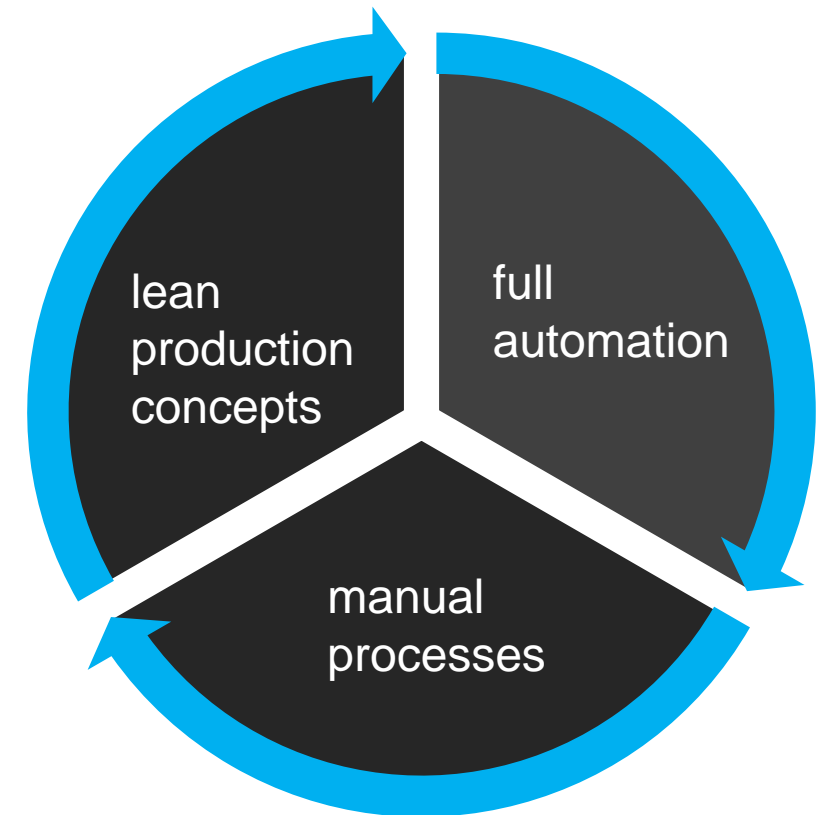
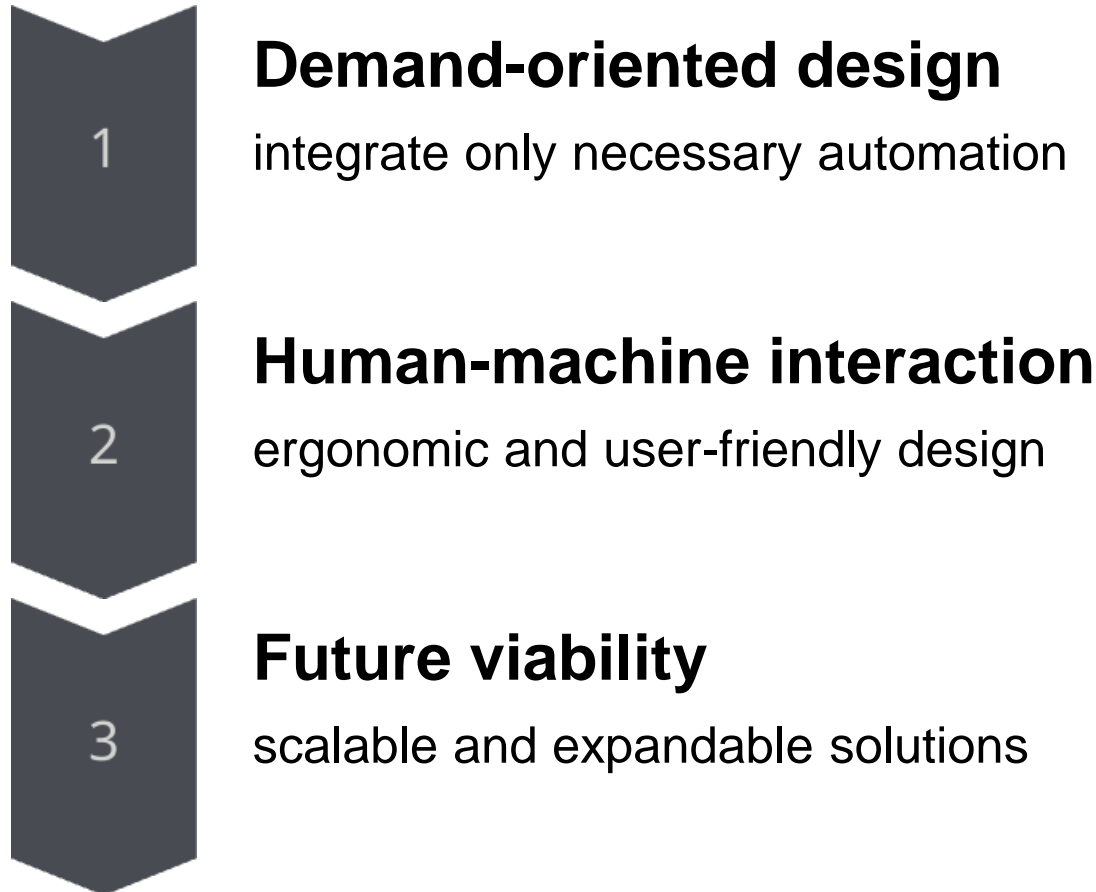


MANUAL PROCESSES

time-consuming, cost-intensive,
quality and cycle time problems

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Approach to Increase Automation Level



SEHO StreamLine Individual Adaption



Ergonomics

Spatial Conditions

Operational Processes

Budget

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The Future of THT Production Customized Automation



1

Analysis

needs assessment and current status

2

Planning

individual solution concepts

3

Implementation

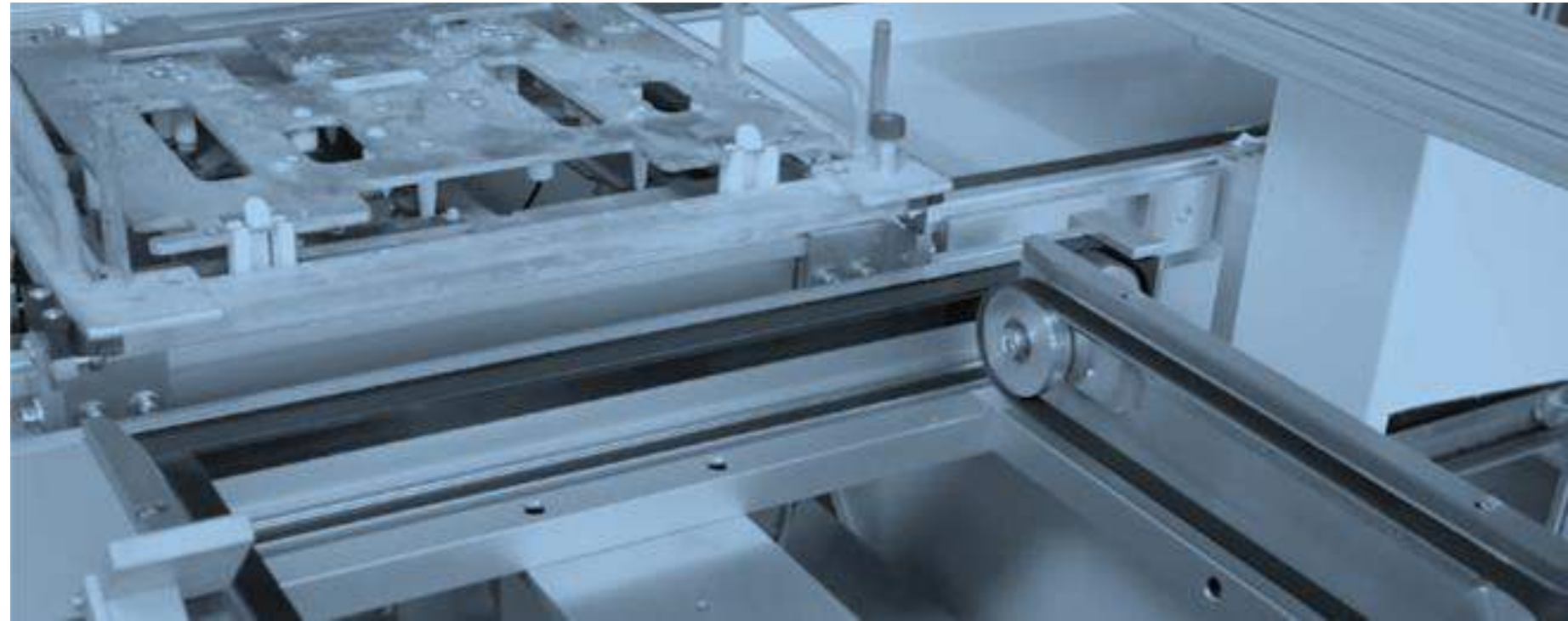
step-by-step automation

4

Optimization

continuous improvement





Examples of Automation Components
in THT Production

SEHO StreamLine Handling Workcell



e.g. for water
pumps with
Bosch feed
conveyor



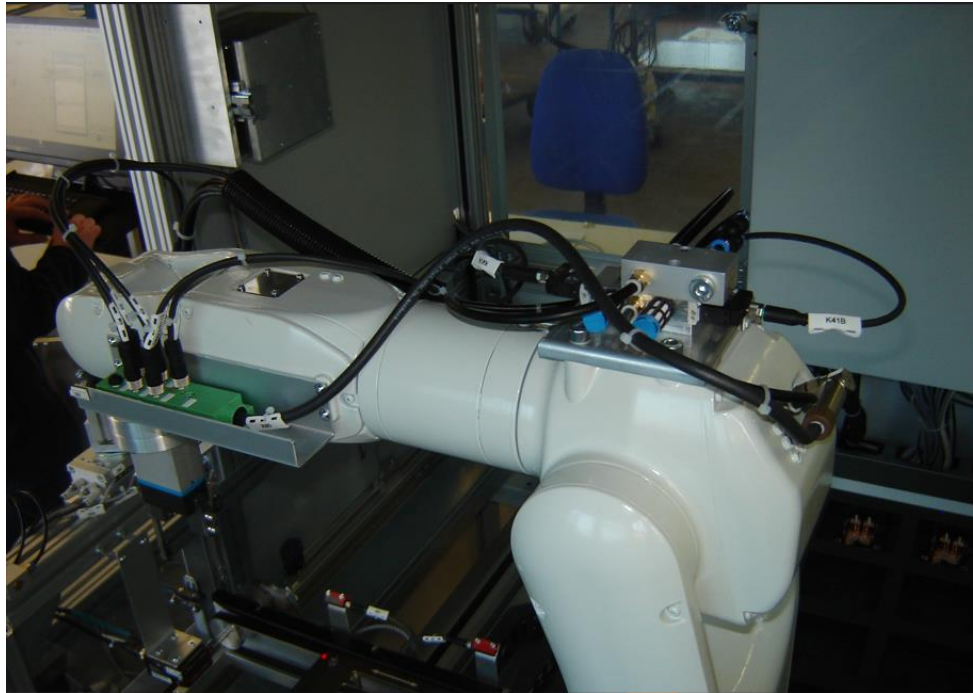
SEHO StreamLine Handling Workcell



for gearbox control



SEHO StreamLine Manipulators



6-axis robot



pick & place axis
with parallel gripper

SEHO StreamLine Buffer Systems

- buffer with 34 storage compartments
- separated loading and unloading module
- output station for unloading and pre-assembling printed circuit boards, in combination with a cobot, for example



SEHO StreamLine Buffer Systems



- loading unit
- unloading unit
- single or double unit
- good/bad sorting possible at the unloader
- also suitable for logistics
- SMEMA interface, can also be used with third-party systems



SEHO StreamLine Buffer Systems

- for bare boards and workpiece carriers
- 4 buffer locations
- cooling optionally available
- SMEMA interface, can also be used with third-party systems



passage module

SEHO StreamLine Handling with FlexBot (AGV)

- routing via tape
- bar codes on the floor for selection of action
- communication with controllers via smart box

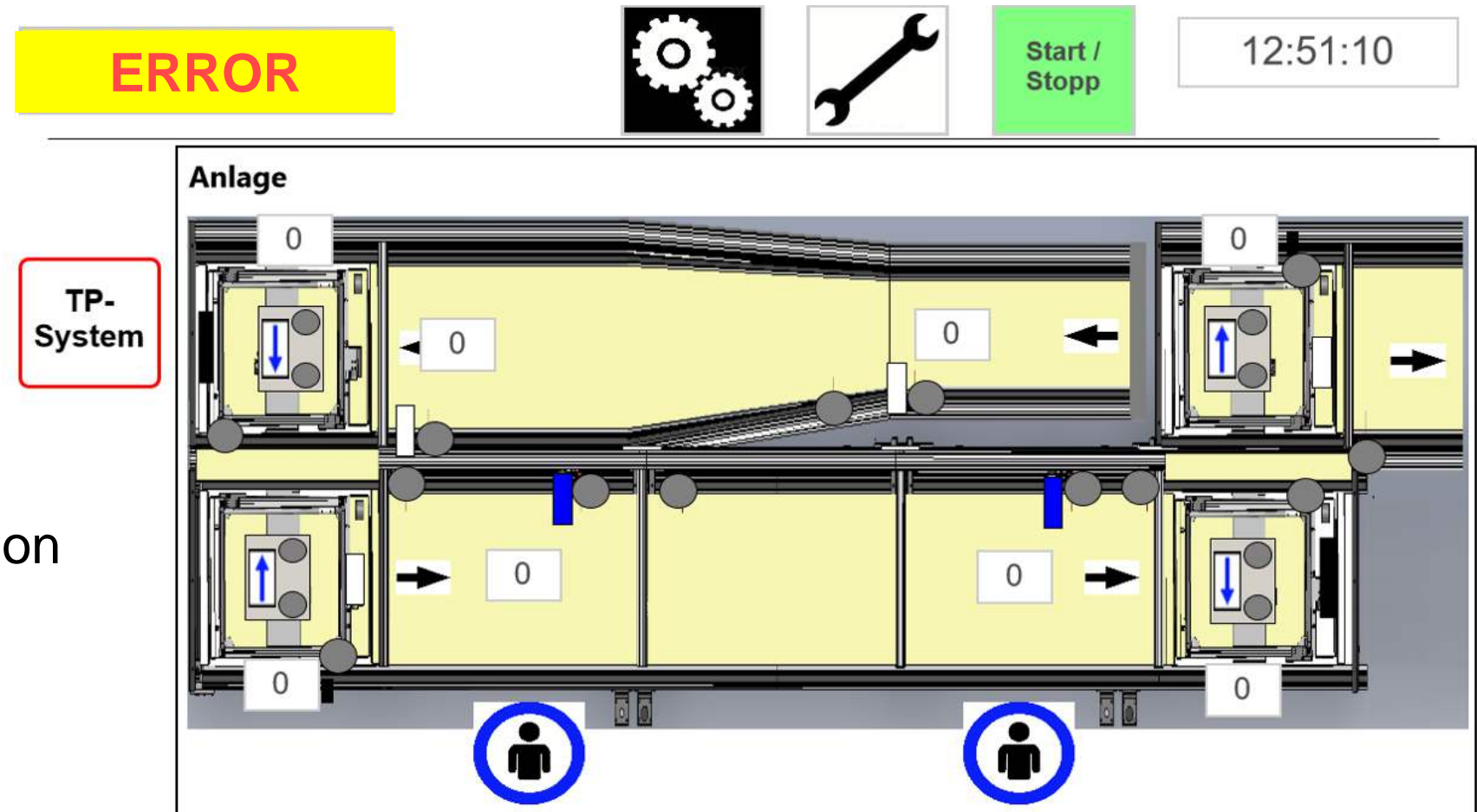


vehicle

- battery life: 12-16 h
- load-carrying capacity net: 25 kg
- roller conveyor
- conveyor belt
- automatic loading function also available



SEHO StreamLine Control and Software



handling visualization

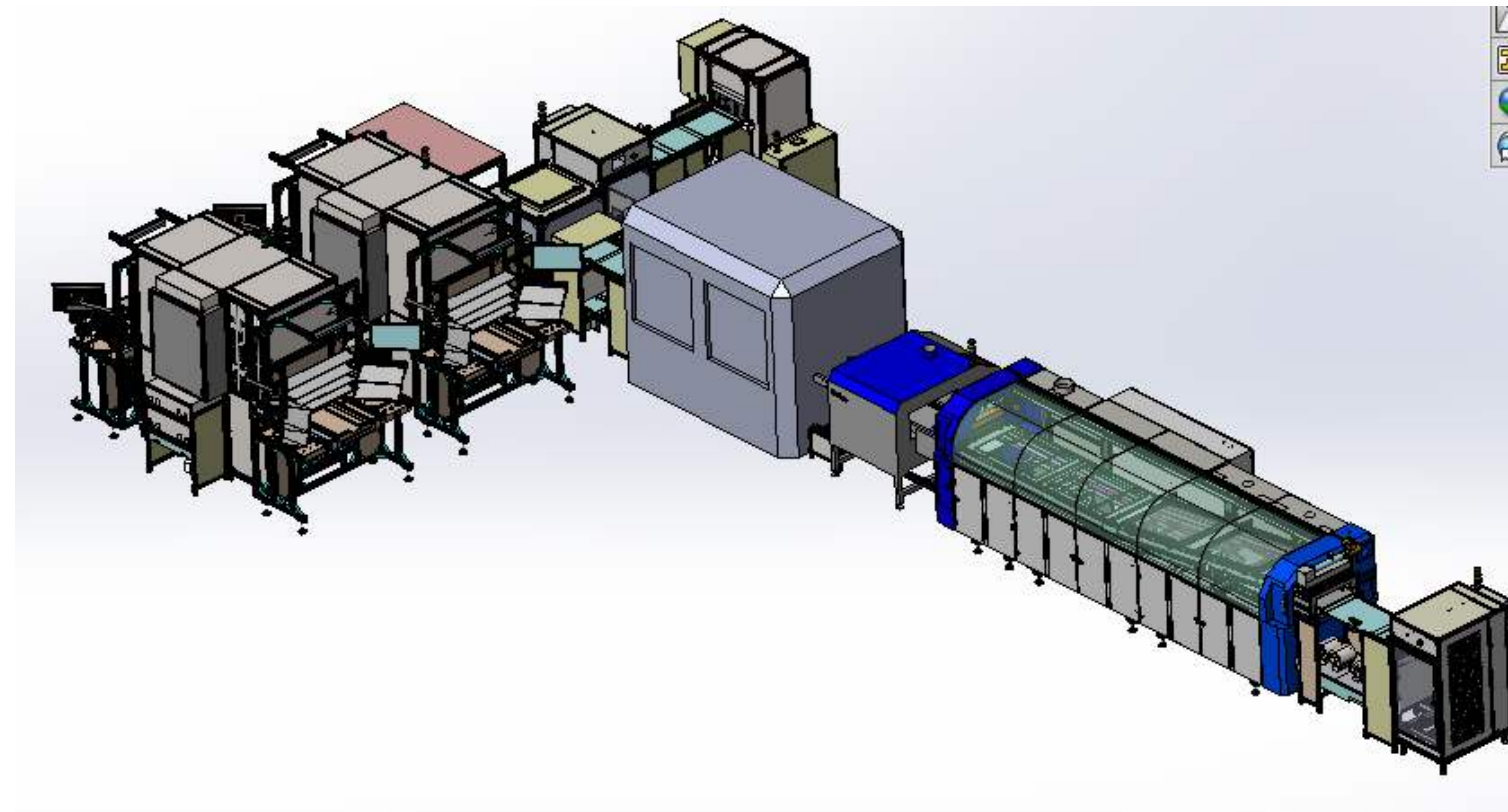
SEHO StreamLine

Complete Solution made by SEHO



MWS 2340 with handling system

- unloading stack buffer with cooling
- turning station with 3 levels for routing and direction compensation
- double handling units, each with 4 buffer compartments
- ergonomic work places
- integration of THT placement system



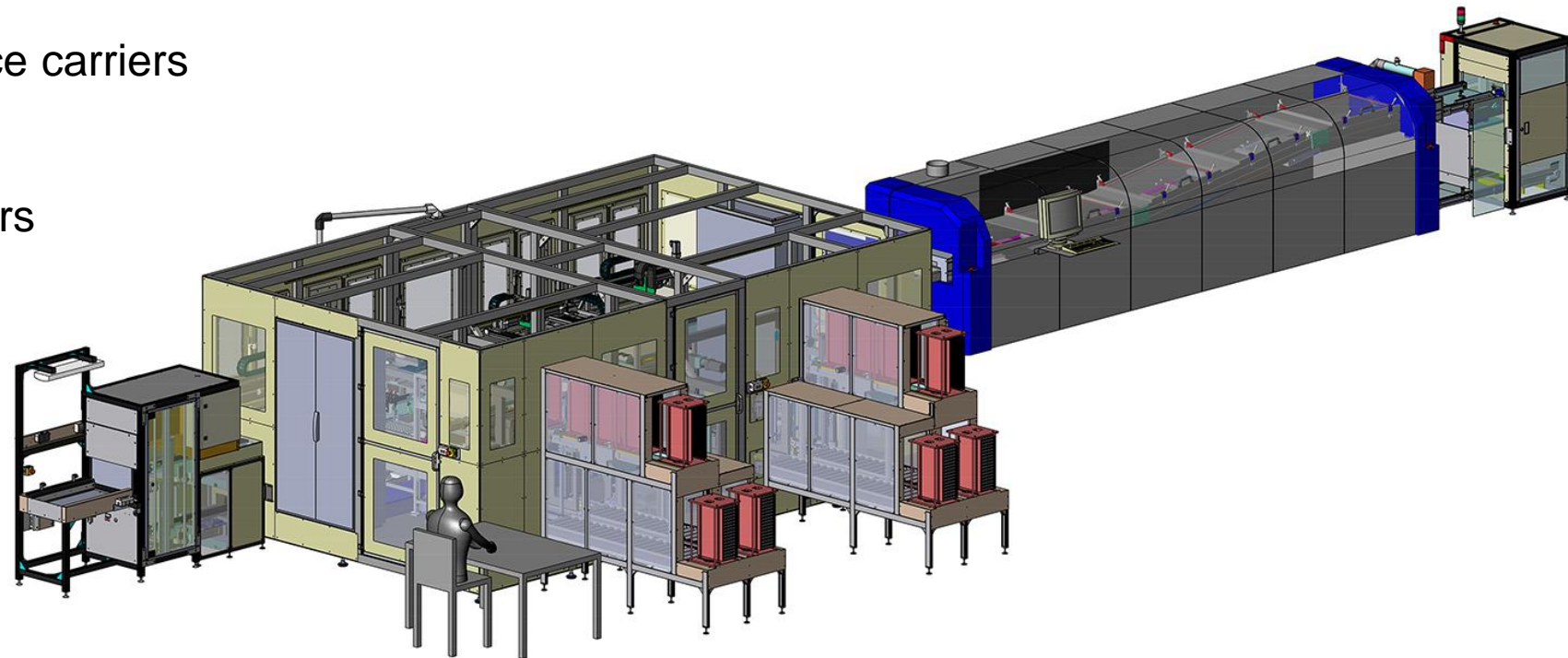
SEHO StreamLine

Complete Solution made by SEHO



MWS 2340 with fully automatic placement and handling of carriers

- THT component placement
- optical inspection: placement control
- insertion into workpiece carriers
- soldering process
- opening of downholders
- remove the assembly from carrier
- optical inspection top and bottom
- sorting: pass/fail



SEHO StreamLine

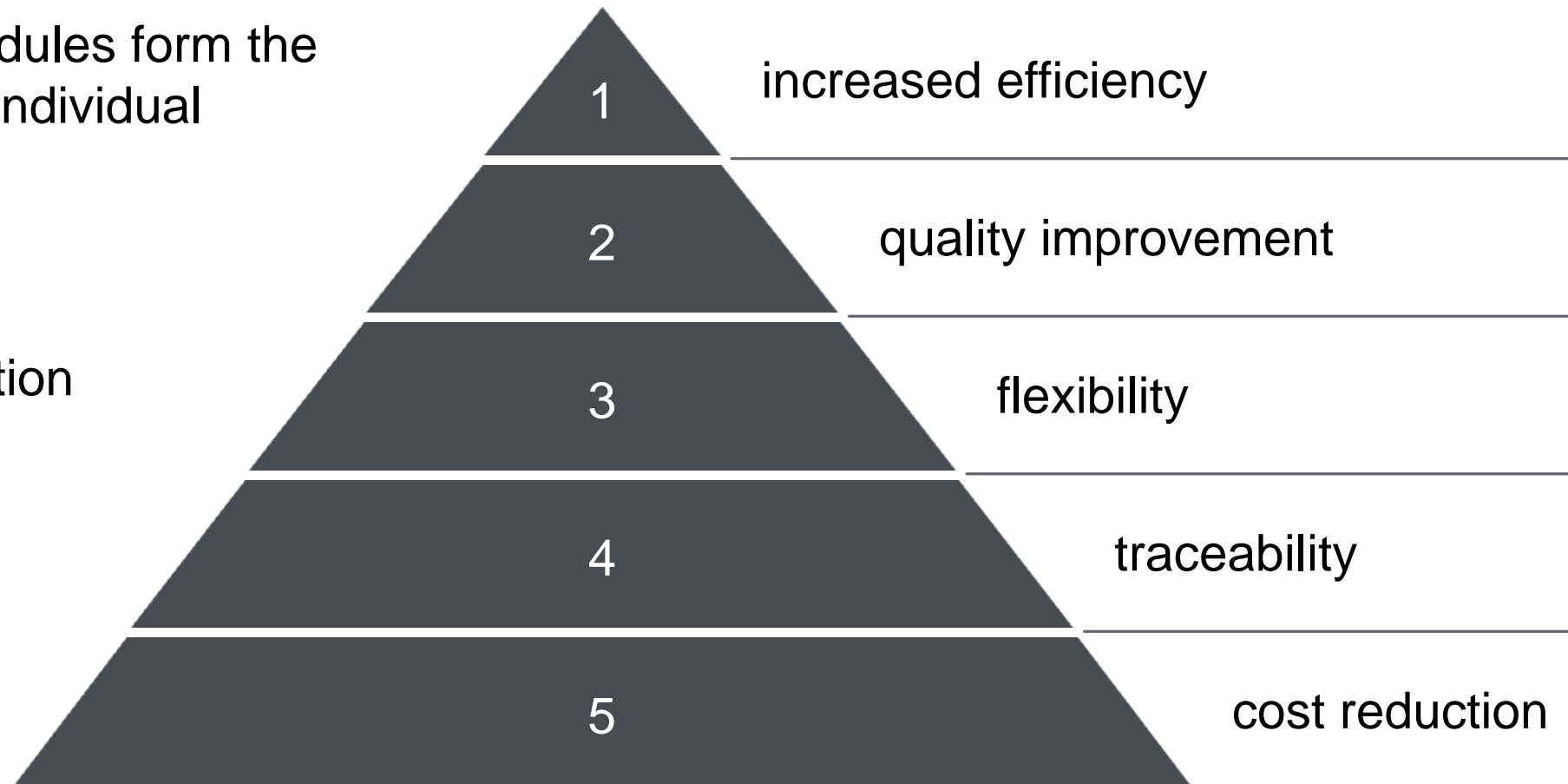
Benefits of Automation

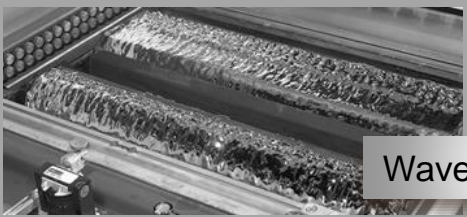


Standardized modules form the starting point for individual solutions.

Goal

Scalable Automation

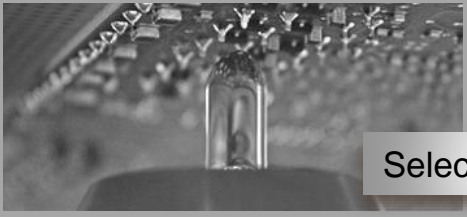




Wave Soldering



Reflow Soldering



Selective Soldering



THT-AOI



Automation



Know How

Thank You!

We look forward to getting in touch with you.