



## Smart Factory Assembly

A digital assembly solution for  
**Medical & Life Science Industry**

## CHALLENGES FOR MEDICAL MANUFACTURERS

### Challenges in your Shop floor

*In contrast to any other field, medical assembly technology is exposed to the highest demands and is a designated place for innovations in assembly.*

*Smart Factory Assembly applied to Medical Device Assembly Process combines optimal process control, ensuring the highest quality achievement, digitalization of work instructions and tool interactions, and data traceability of production steps according to the most common industry regulations.*

We help you to solve the following challenges in your assembly process...



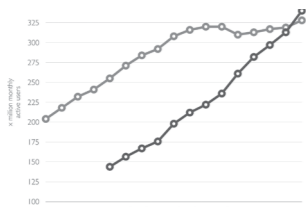
Fully connectivity of assembly tool to ensure process traceability and data record.



Digitize work instructions to adapt to every product variation and worker level.



Keep track of process and production changes to comply with industry-specific regulations



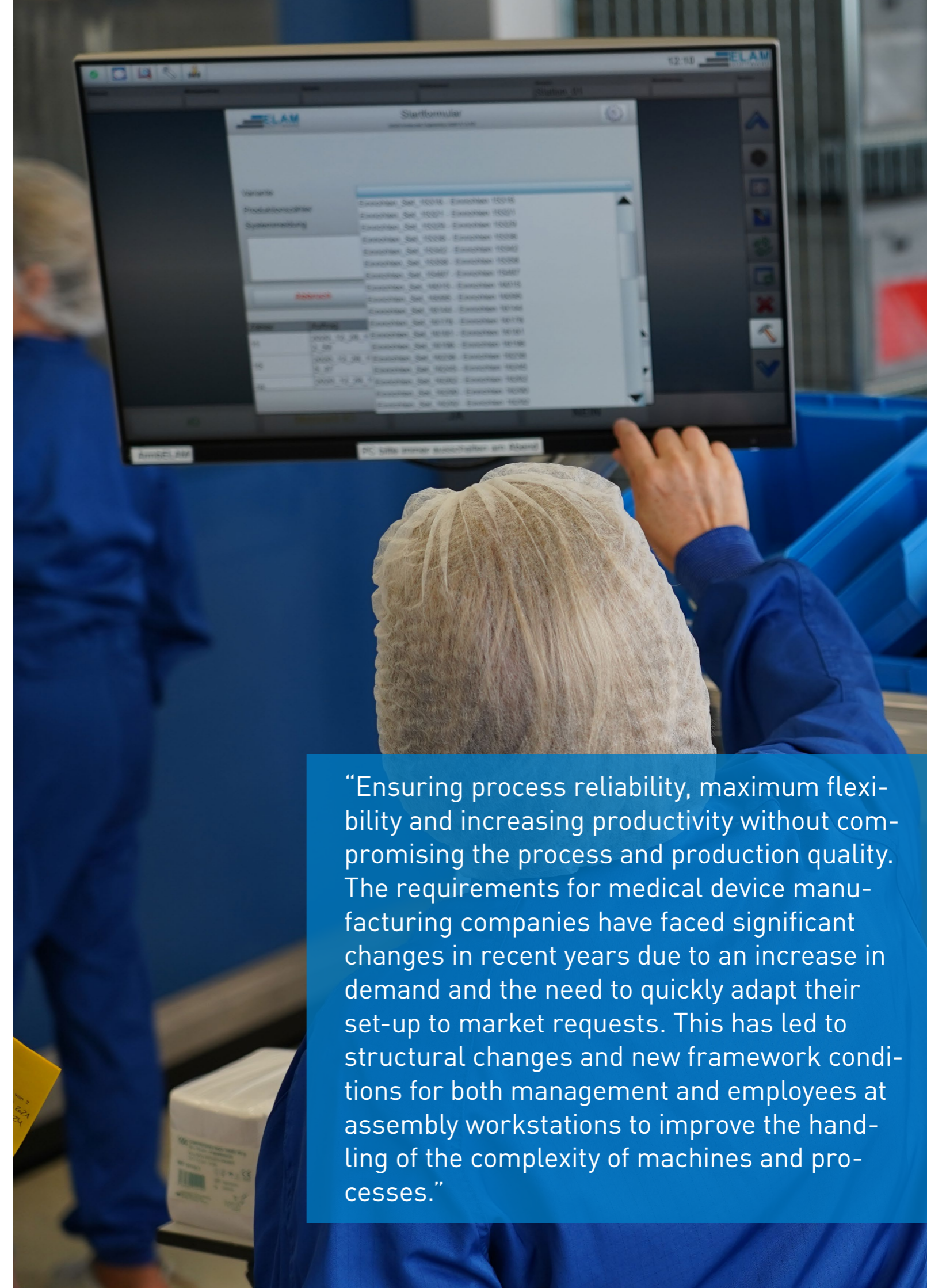
Maximize flexibility and quickly adapt your production to different product variations.



Ensure full process reliability to achieve your quality objectives consistently under all conditions.



Assembly data record to provide full process transparency and facilitate process improvement



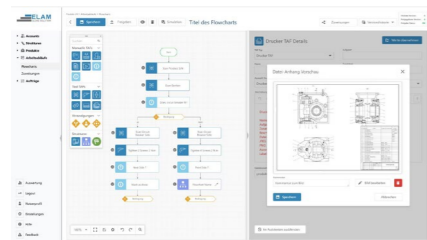
“Ensuring process reliability, maximum flexibility and increasing productivity without compromising the process and production quality. The requirements for medical device manufacturing companies have faced significant changes in recent years due to an increase in demand and the need to quickly adapt their set-up to market requests. This has led to structural changes and new framework conditions for both management and employees at assembly workstations to improve the handling of the complexity of machines and processes.”

## SMART FACTORY ASSEMBLY

# Smart Factory Assembly Solution

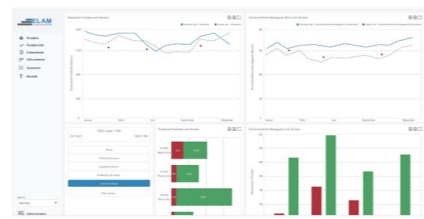
### Smart Work instructions

Design your interactive workflows including instructions, checklists etc.



### Customized dashboards

Track your data and improve your processes.



### Connected equipment

Integrate any device and tool that improves your quality and productivity.



### Combine work and material flow

Pick-To-Light helps to guide the process and automatically order new stock when needed.



### Assisting the operator

Easily modify the amount of content your employees need to view based on their experience levels and the product.



***"Intelligent solutions are needed that simplify the work and ultimately ensure optimal process control in manual assembly. It's about assured quality, the necessary flexibility, maximum transparency and the highest possible level of automation."***

## USE CASE

# A more flexible concept that ensures a high quality standard

***We have as a customer one of the world's largest manufacturers of high-precision instruments for chemical analysis based in Herisau, Switzerland. The partnership with Bossard began in 2020 by acquiring a workstation to test whether or not the technology could be used as a global standard for digitizing assembly. Upon a positive result, they have acquired another 10 standardized workstations.***

### Challenge

Their factory has high product variation (over 100 types) and many of them come in low volume and small batch-sizes.

1. Can't invest in additional workstations as they are limited by shopfloor space. Need to have very fast changeover setup to assemble different product variants.
2. Only products of a certain complexity have work instructions (paper based) while most products only have construction drawings that are not intuitive.
3. High error rate leading to frequent rework of products.
4. High turnover of assembly workers, need to onboard new workers quickly.
5. Requirement for tracking data for production optimization.

### Solution

With 10 standardized Smart Factory Assembly workstations, the company has experience a significant reduction in change over set up time by at least 50%, leading to higher shopfloor space utilization. In addition, digital work instructions can be created easily using flow chart or visualization, regardless of product complexity. With interactive step-by-step work instructions, rework has been reduced by 80%. Our solution allows new workers to start assembling immediately without the need for a lengthy training session.

### Outcome

With the new Smart Factory Assembly System, our customer can achieve maximum flexibility at the workstation. The system allows for maximum standardization in specific workbench, allowing for the production of various different products on site, including the ability to have one or more small-scale production workbenches in a row.

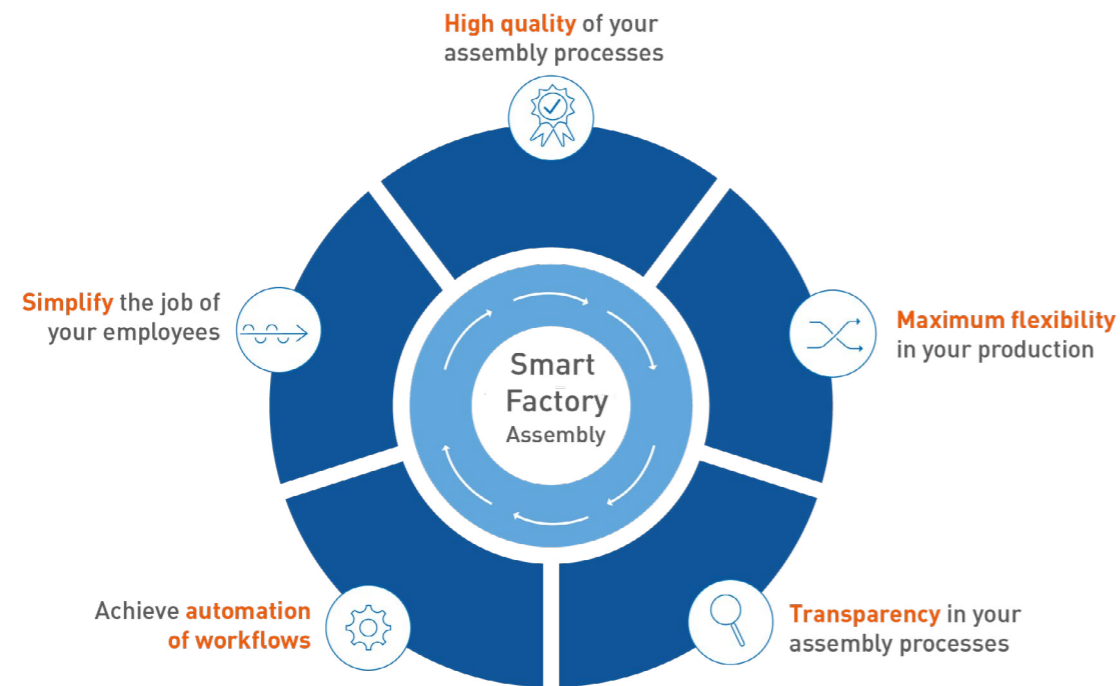
**Do you also want to take advantage of our Smart Factory Assembly expertise?**

Let us find the best solution for your company.

Learn more about the Use Case



# Summary and Benefits



## Quality

Maintain quality control and process reliability in all circumstances.

## Process automation

Automated data collection and workflow automation to avoid human errors.

## Simplify

Operator can follow the SOP while reducing the onboarding process.

## Flexibility

Ensure the highest level of flexibility while set up and change over your production layout.

## Transparency & Traceability

The automated tracking of what happens helps to fulfill the medical standards without additional effort.