

Lean Champions – 2025 Annual Projects Summary

Continuous Improvement through 5S & Kaizen



Annual ceremony – January 2026, Pravets

www.lean.bg

Team



Plant



Products:



Total area: 17000 m²

Total number of employees: 180

Scope of activities:

- Industrial printers
- Automotive printers (tachograph printers)
- Medical printers
- Electronic modules and sub-assemblies

 **AUMOVIO**
METTLER TOLEDO

 **Stoneridge**
HERTZ
SYSTEMTECHNIK GMBH

 **GE Healthcare**
 **Omnicell**

Customers:
stryker
GEAE

Annual performance – KPI table



APS - Printers

Quarters 2025	5S				Kaizen projects					Voting score		Quarterly results 2025
	First audit result	Second audit result	Target	5S score %	KPI	Before	After	Target	Score %	Avg. score	Avg. score %	
Q1	25%	81%	45%	100%	Man-hours per unit	0.57	0.35	0.51	100%	5.0	80.0%	93.3%
Q2	31%	89%	70%	100%	Material preparation time reduction	246	74	20%	100%	1.82	61%	87%
Q3	44%	93%	75%	100%	TPH line efficiency improvement	37.5%	26.7%	30%	100%	2.14	71%	90.4%
Q4	67%	92%	88%	100%	Increase of productivity per shift	625	724	724	100%	---	---	---

Color indicator: above 90% | 80–90% | below 80%

Note: Final quarterly results are calculated as a weighted average of 5S, Kaizen and Voting scores.

Q1 Kaizen Project – Problem, Scope and Targets



Problem

Defining the problem:

The production area shows low productivity and high manufacturing costs due to unclear performance standards, missing work instructions, and a lack of visibility on actual capacity. Frequent overtime is used to meet targets, increasing costs and reducing efficiency. The project aims to improve workforce allocation and establish clear efficiency measurements in line with the company's strategic goals.



Project Scope

Define the scope of the project :

The project focuses on one production line within the machining area, aiming to analyse performance losses, establish visual work standards, and implement actions to improve productivity and reduce overtime. The scope includes all operations directly affecting cycle time and equipment utilization



Target and result

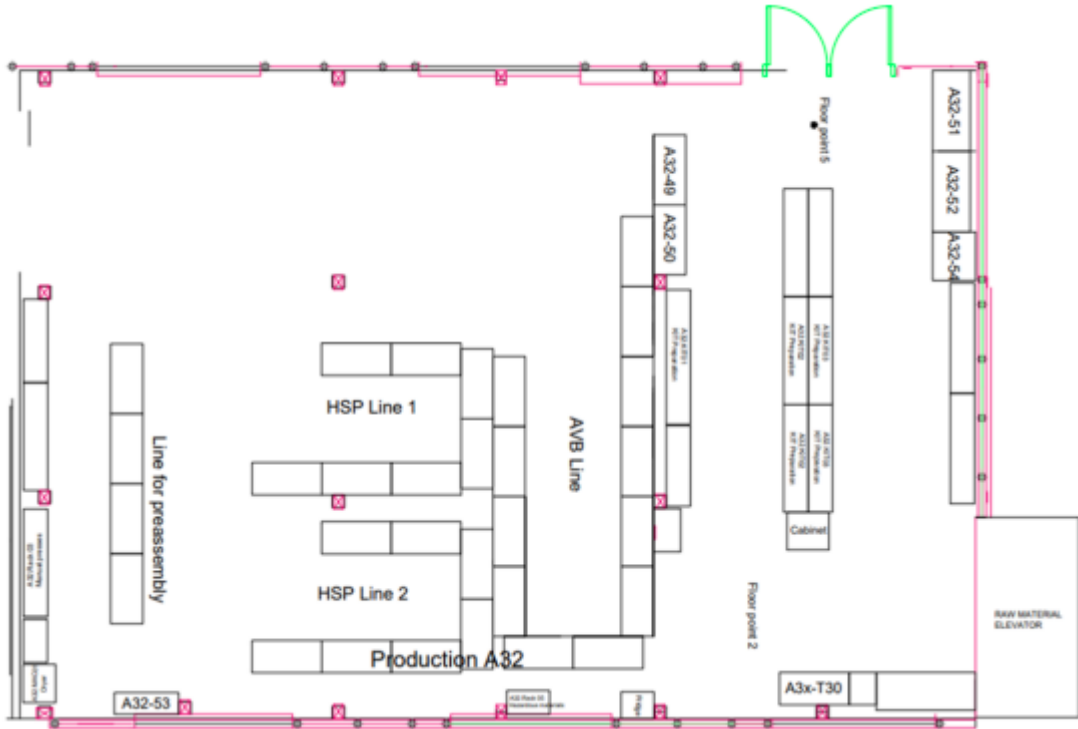
KPIs	Measurement unit	Baseline	Target	Result	Savings
Production time of 1 module (minutes)	minutes	34,2	30.78	21	48 903,66€
Loss of production area	M ²	93.639	63,19	63,19	
Overtime Losses	hours	1472	0	0	
Period		2024	March 2025	April 2025	

Q1 Kaizen Project – Before & After

Before



After



Q1 Kaizen Project – Before & After

Before



After



Q1 Kaizen Project – Before & After

Before



After



Q2 Kaizen Project – Problem, Scope and Targets



Problem

Defining the problem:

The production flow was negatively affected by long material preparation times and an inefficient packaging process. Material issuing from the warehouse required excessive waiting time, while the packaging of finished goods was not standardized and involved long transportation distances and crossed flows. These issues led to delays on production lines, inefficient use of manpower, and increased operational costs.



Project Scope

Define the scope of the project :

The project focused on the **Warehouse (Alpha)** and **Packaging areas**.

The scope included:

- Material issuing process from the warehouse
- Packaging preparation and packaging of finished products
- Internal material flow, layout, and visual management
- Standardization through 5S and work instructions

All activities directly impacting preparation time, packaging time, and operator efficiency were included in the scope.



Target and result

KPIs	Measurement unit	Baseline	Target	Result	Savings
Material preparation time	minutes	246	197 (-20%)	74	22 876€
Packaging time	minutes	347	312 (-10%)	276	
Annual cost savings	€	0	20,000	22,876	
Period		2024	June 2025	July 2025	

Q2 Kaizen Project – Before & After

Before



After



Q2 Kaizen Project – Before & After

Before



After



Q2 Kaizen Project – Before & After

Before



After



Q2 Kaizen Project – Before & After

Before



After



Q3 Kaizen Project – Problem, Scope and Targets



Problem

Defining the problem:

The production process of TPH (Thermal Print Head) was physically split between different buildings (Alpha and Bravo), resulting in significant inter-operation material transportation. These transfers generated losses in time, labor and internal logistics costs. The lack of a standardized production flow and non-optimized workstation layout led to duplicated efforts, reduced traceability and lower overall production efficiency. Manual transportation between buildings created non-value-added activities and hidden losses.

Project Scope

Define the scope of the project :

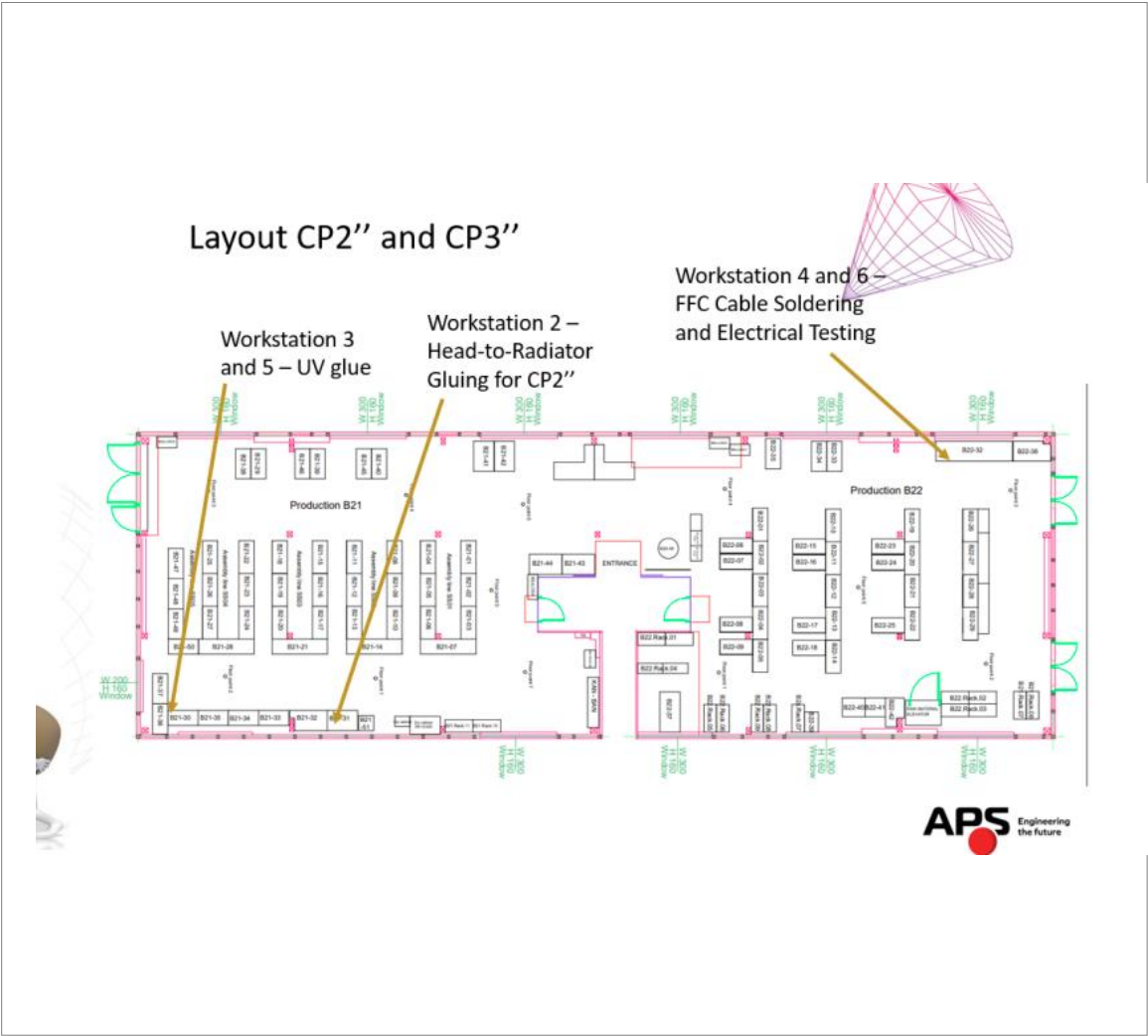
- Production line: **TPH (Thermal Print Head)**
- Buildings involved: **Alpha and Bravo**
- Scope includes:
 - Consolidation of production operations into a single production flow
 - Optimization of workstation layout
 - Reduction of internal transportation and manual handling
 - Introduction of standardized flow and visual management
 - Support for future scalability and automation readiness

Target and result

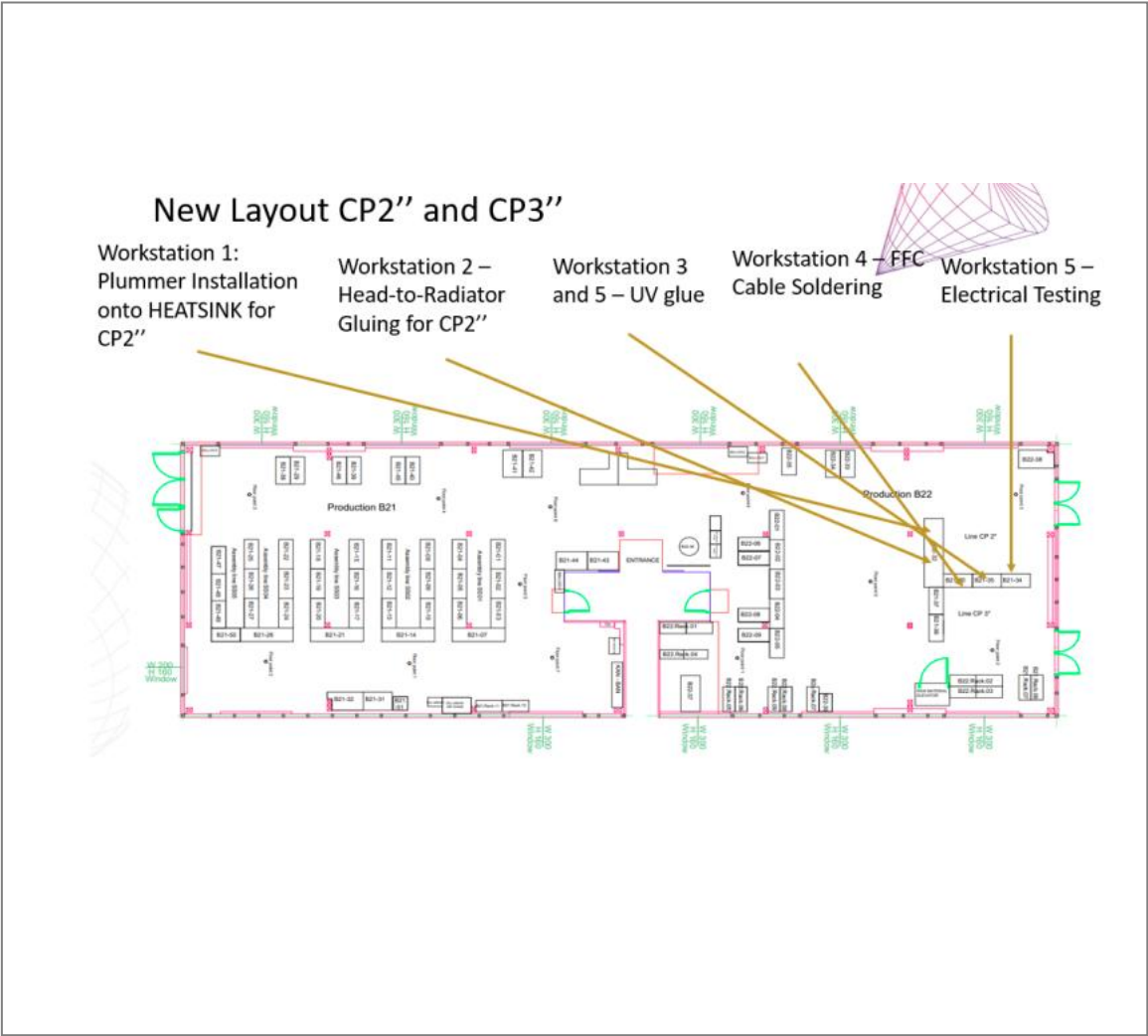
KPIs	Measurement unit	Baseline	Target	Result	Savings
Production cycle time	sec / unit	37.5	30.0	26.7	2 759,46 €
Internal transport distance	meters / unit	39.0	≤ 20.0	≈ 0 (eliminated)	
Planned improvement	%	–	20%	29% achieved	
Period		Q2 2025	July 2025	September 2025	

Q3 Kaizen Project – Before & After

Before



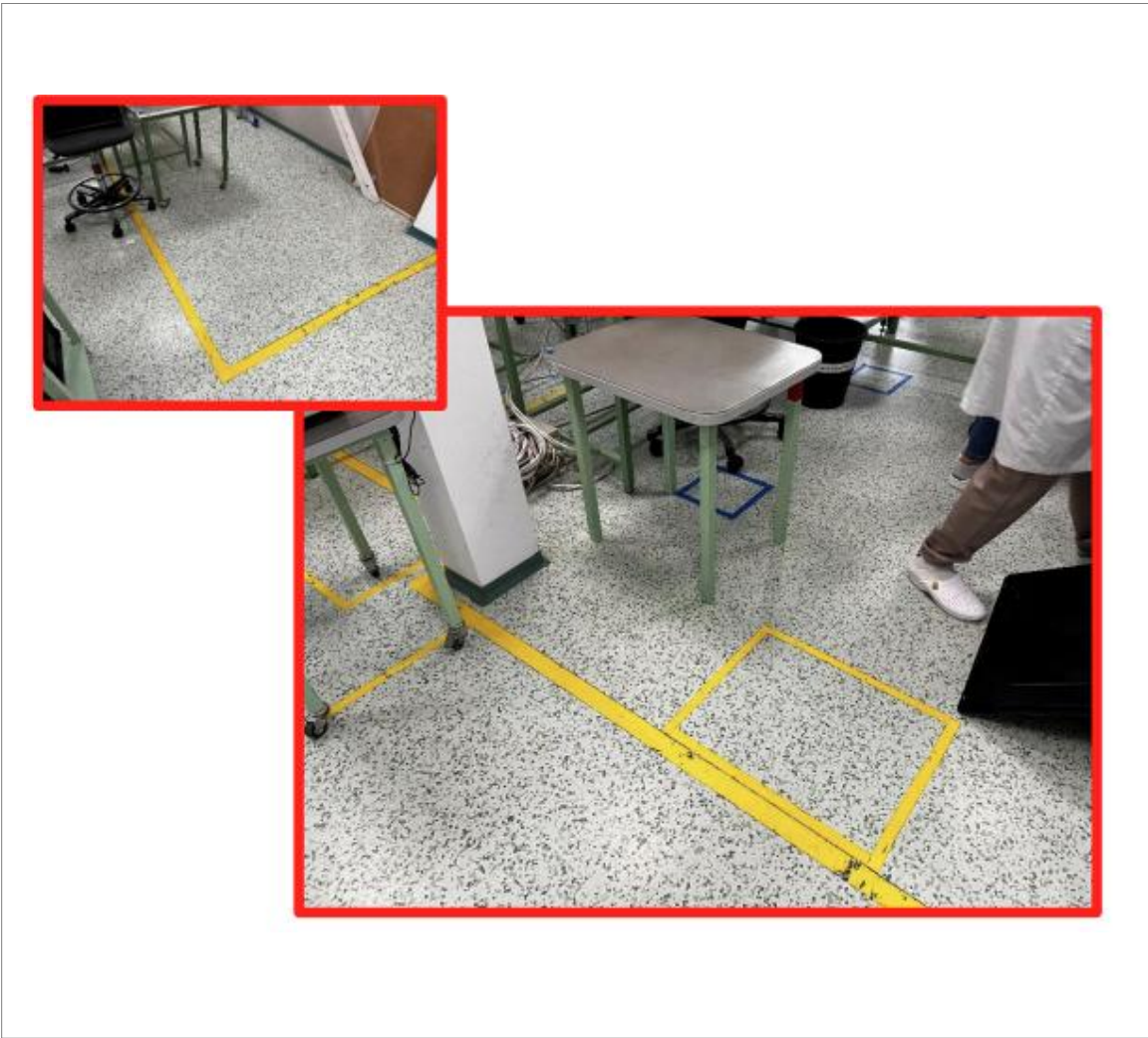
After



Q3 Kaizen Project – Before & After

Before

After



Q4 Kaizen Project – Problem, Scope and Targets



Problem

Defining the problem:

Low overall productivity in the automotive department caused by a fragmented, function-oriented production layout. The process was characterized by multiple handovers between separated operations, unbalanced workloads and limited real-time visibility of deviations during the shift. Performance issues were typically detected at the end of the shift, leading to instability, backlog and inefficient use of available resources.



Project Scope

Define the scope of the project :

- Production line: **SS205**
- Department: **Automotive**
- Scope covered the complete end-to-end production flow:
 - Soldering
 - Mechanical assembly
 - Testing
 - Roller assembly
 - Visual control
- Layout transformation from **functional organization** to **flow-oriented organization**
- Implementation of integrated KPI and hourly performance control
- Cross-functional team involvement (Planning, Capacity, Quality, Engineering, Management)



Target and result

KPIs	Measurement unit	Baseline	Target	Result	Savings
Overall productivity	units / shift	625	724	724	29 661€
Released capacity	FTE	0	3.0	3.36	
Period		2025	October 2025	December 2025	

Q4 Kaizen Project – Before & After

Before



After



Q4 Kaizen Project – Before & After

Before



After



What we have learned from our kaizen projects

- **Clear problem definition and root cause analysis are critical for achieving sustainable results**
- **Flow-oriented thinking delivers higher impact than isolated local optimizations**
- **Cross-functional collaboration significantly accelerates problem solving and implementation**
- **Visual management and standardized work enable early deviation detection and stable output**
- **Daily 5S routines are a prerequisite for process stability and discipline**
- **Data-driven decision making improves trust and alignment across departments**
- **Productivity and capacity improvements can be achieved without additional resources when processes are properly balanced**
- **Ownership at shop-floor level is key to sustaining improvements over time**



Summary of the main results and benefits of the year.

Tangible (quantitative):

- Consistently high 5S performance, achieving 100% target fulfillment across all quarters
- Productivity improvement through reduced cycle time, optimized layouts and balanced workloads
- Released production capacity equivalent to 3.36 FTE
- Reduced internal transportation, overtime and non-value-added activities
- Annual financial equivalent savings around

100 000\$ approximately 0.4% of total turnover

Achieved without additional resources!!!

Intangible (qualitative):

- Stronger process ownership at shop-floor and team level
- Improved cross-functional collaboration between Planning, Production, Quality and Engineering
- Higher process transparency through visual management and integrated KPIs
- Faster deviation detection and more stable, predictable output
- Strengthened continuous improvement and problem-solving culture



New building no longer needed – 6 000 000 \$!!!

Our long-term vision and commitment



- **Expand autonomous maintenance to all machines**
- **Standardize 5S audits across departments**
- **Reduce setup times through SMED activities**
- **Continue Kaizen training for all operators**



Thank You

THANK YOU
FOR YOUR
ATTENTION

