



Lean Champions – 2025 Annual Projects Summary

Continuous Improvement through 5S & Kaizen



Annual ceremony – January 2026, Pravets

www.lean.bg

Name of the plant

Team



Plant



Products: Steering Column Modules



Total area: 25 000 m²

Total number of employees: 1800

Scope of activities:

- Electromechanical Assembly
- Warehousing and HUB distribution
- Plastic Molding
- CNC and tool-shop

Customers:

Volkswagen Group – 31%	Mercedes Benz – 15%	Renault – Nissan – 11%
Stellantis Group – 24%	Ford – 15%	BMW – 3%

Annual performance – KPI table



Kostal Bulgaria Automotive Ltd.

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	94%	96%	96%	100%	Efficiency	89,7%	99,8%	99,8%	100%	5,2	84,6%	94,9%
Q2	98%	98%	98%	100%	Scrap Rate	3,0%	0,5%	0,5%	100%	2,18	73,0%	91,0%
Q3	98%	98%	98%	100%	Storage Costs	270 000€	229 000€	229 000€	100%	2,14	71,0%	90,4%
Q4	98%	98%	98%	100%	FTE reduction in 3PL	3	Expectation 0	0	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:

- Low line productivity / line efficiency
- Increase the line's cycle time due to additional activity outside the standard assembly process
- Introduction of an additional greasing process due to poor quality incoming material



Project Scope

Define the scope of the problem :

- Analysis of the balancing of assembly stations on the line with the aim of achieving higher process efficiency and reducing cycle time.
- Rebalancing of the line and rearranging of the work content



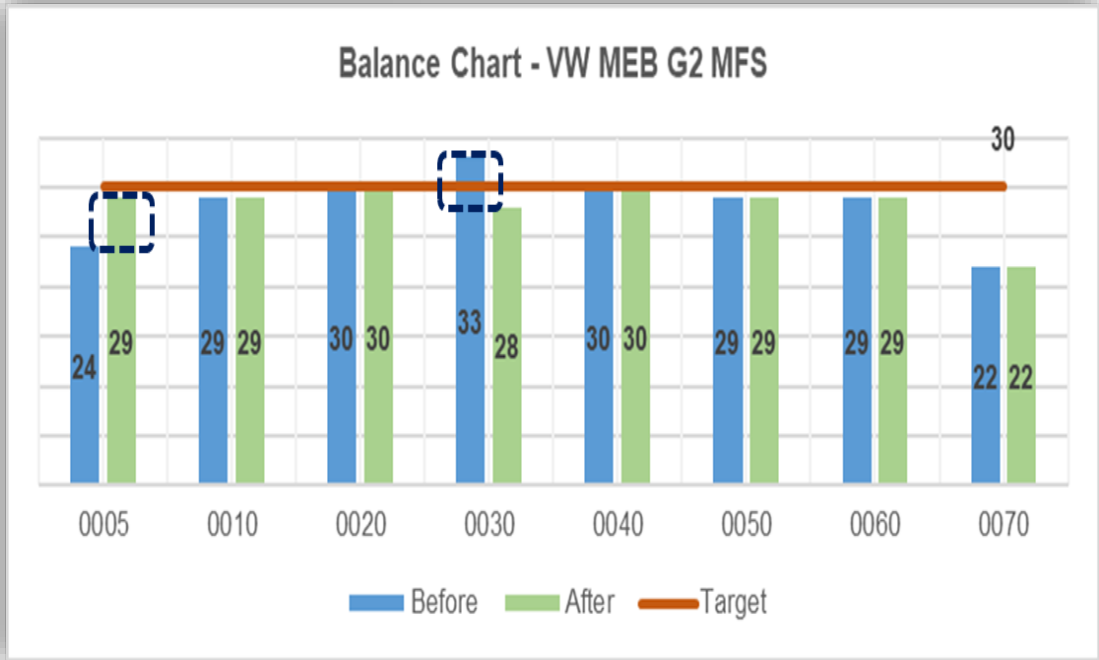
Target and result

KPIs	Measurement unit	Baseline	Target	Result	Savings
Line Efficiency	%	89,7	99,8	99,8	39 413 €
Line Productivity	pcs/phr	13,64	14,99	14,99	
Period		2024	March 2025	April 2025	

Q1 Kaizen Project – Before & After

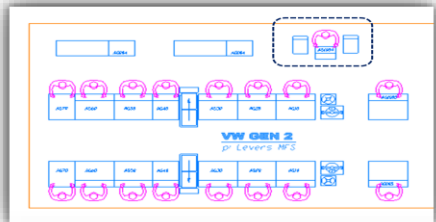
Before

Define the problem: Bottleneck and over - processing



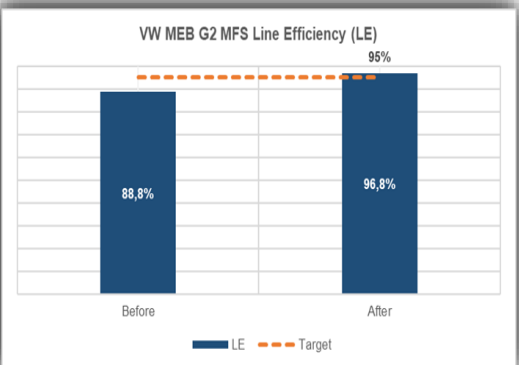
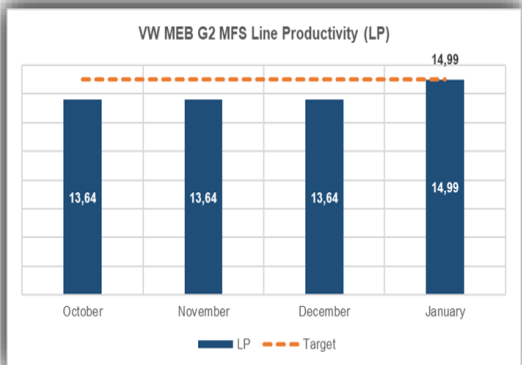
After

Define the improvement: Process rebalancing



Status	Operators	Bottleneck	Demand 2025	Hourly rate	Production Cost
Before	8	33,55	539758	11,82 €	475 589,05 €
After	8	30,77	539758	11,82 €	436 175,20 €

Savings Potential (delta Production Cost) - 39 413,85 €



Q2 Kaizen Project – Problem, Scope and Targets



Problem

Defining the problem:

- Due to a quality problem with the supplier, the illumination calibration station rejects 3% of the manufactured modules



Project Scope

Define the scope of the problem :

- Analysis of errors and parameters reported by the illumination calibration station
- Create a border sample for the supplier

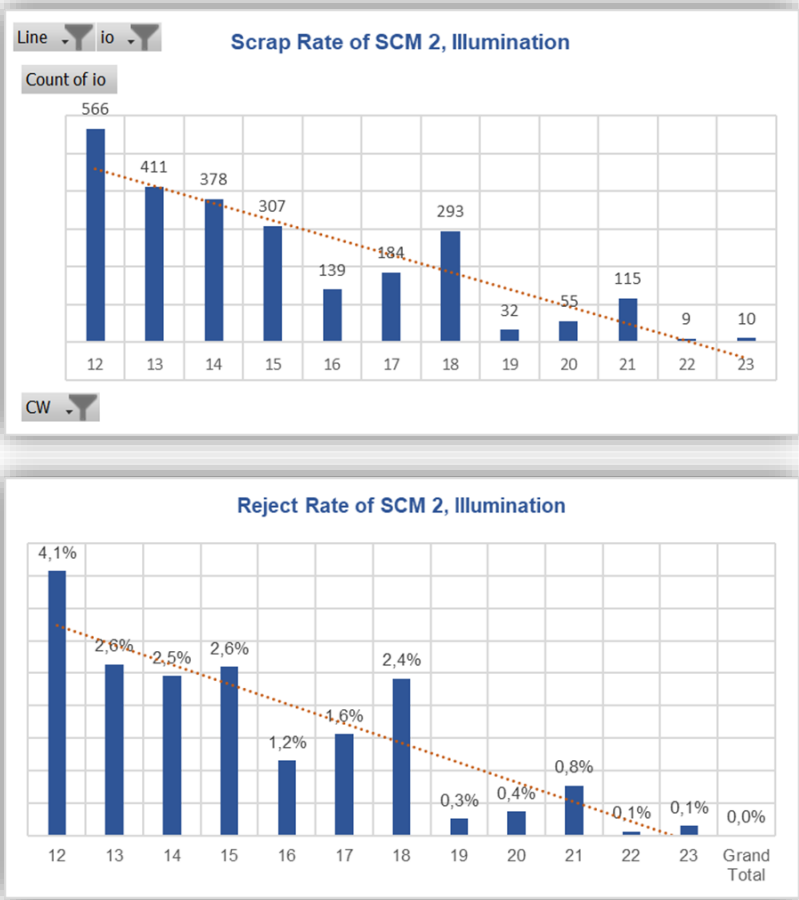


Target and result

KPIs	Measurement unit	Baseline	Target	Result	Savings
Scrap rate	%	3,0	0,5	0,5	52 032 €
Scrap costs	€/month	5548	1212	1212	
Period		March 2025	June 2025	July 2025	

Before

Define the problem: High scrap and reject rate on illumination of symbol element “P”



After

Define the improvement: Analysis and presetting of control limits of the process



Q3 Kaizen Project – Problem, Scope and Targets



Problem

Defining the problem:

- accumulation of excess pallets above the allowed maximum of 5000 pallets. Each additional pallet is paid per day. The starting number of pallets at the beginning of the project is 8500 pallets, which leads to additional costs from charging for 3500 pallets per day



Project Scope

Define the scope of the problem :

- Analysis of errors and parameters in the management of customer packaging
- Analysis of the processes of storage and handling of customer packaging



Target and result

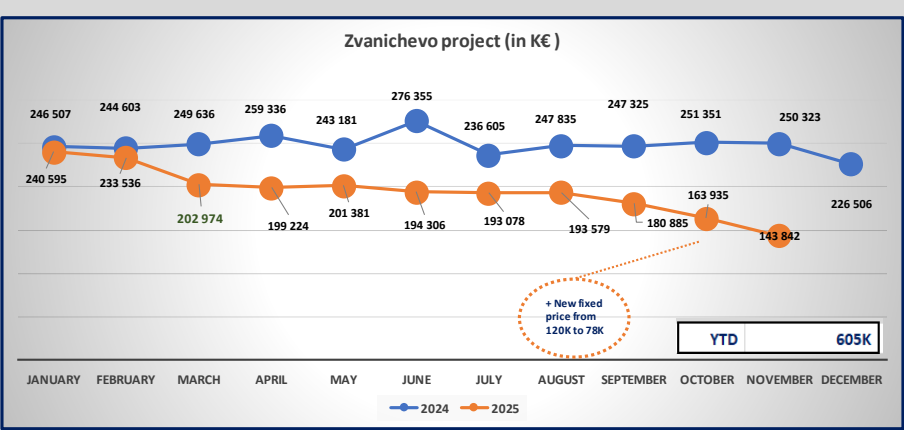
KPIs	Measurement unit	Baseline	Target	Result	Savings
Storage Costs	€	247 835 €	180 885 €	180 885 €	797 285 €
Period		2024	September 2025	October 2025	

Q3 Kaizen Project – Before & After

Before

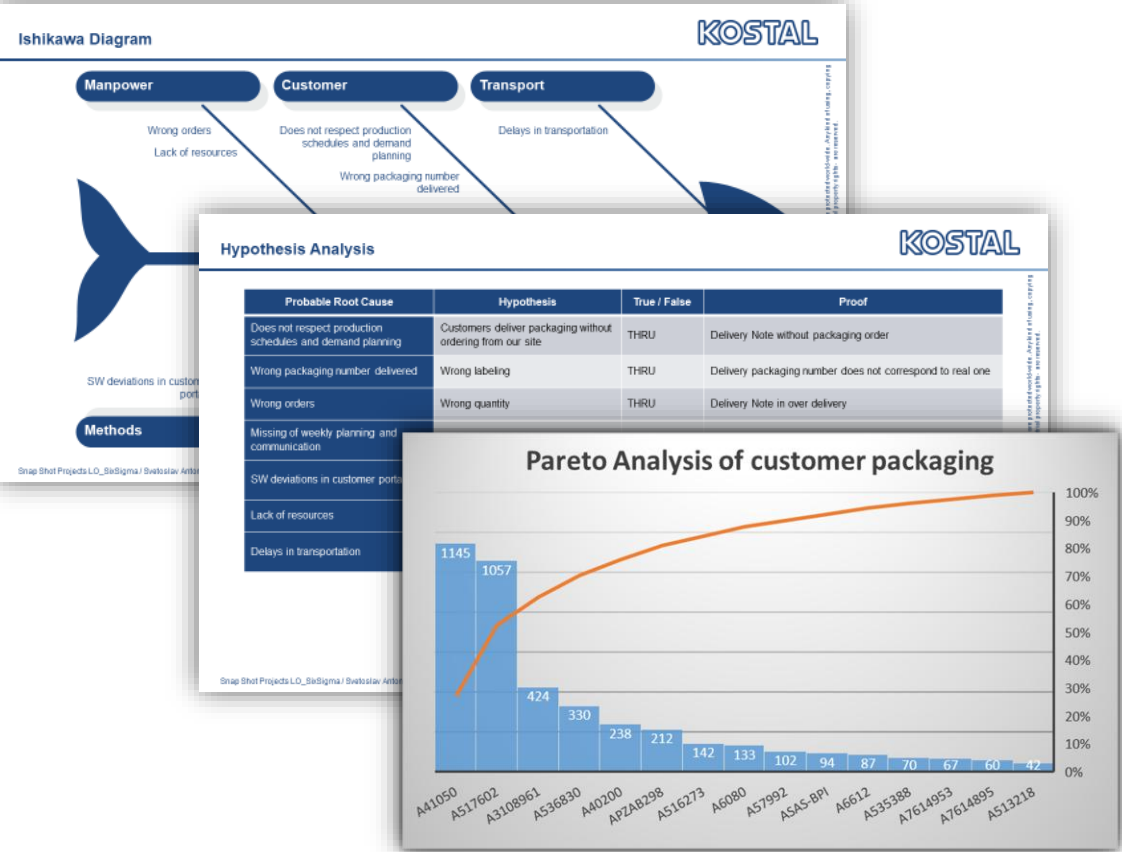
Define the problem: Additional cost for storing and services for 3500 pallets per day based on contract conditions

	2024	2025	reducti	saved
January	246 507	240 595	2%	- 5 912 €
February	244 603	233 536	4%	- 11 067 €
March	249 636	202 974	17%	- 46 662 €
April	259 336	199 224	21%	- 60 112 €
May	243 181	201 381	15%	- 41 801 €
June	276 355	194 306	27%	- 82 049 €
July	236 605	193 078	17%	- 43 527 €
August	247 835	193 579	16%	- 54 257 €
September	247 325	180 885	27%	- 66 440 €
October	251 351	163 935	40%	- 87 416 €
November	250 323	143 842	-	- 106 481 €
December	226 506			
	2 979 564 €	2 147 334 €	YTD	605K



After

Define the improvement: Data analysis and packaging management



Q4 Kaizen Project – Problem, Scope and Targets



Problem

Defining the problem:

- Low automation delivery from WH to SF (semiautomatic forklift)
- Potential for FTE optimization in 3PL company



Project Scope

Define the scope of the problem :

- Automated delivery method from WH to SF (AGV)
- (reduce 3PL pallet manipulants with 1FTE per shift / 3 FTE in total)



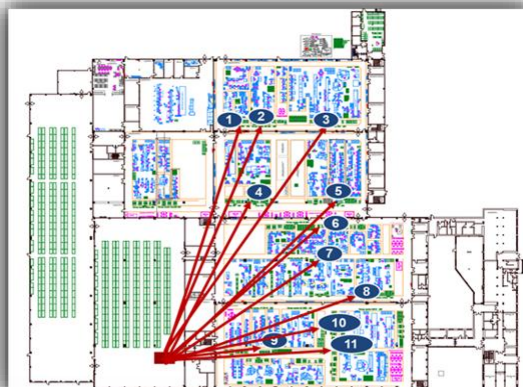
Target and result

KPIs	Measurement unit	Baseline	Target	Result	Savings
labor costs in 3PL	€	68 256	0	tbd	68 256 €
FTE reduction in 3PL	FTE	3	0	tbd	
Period		2025	June 2026	July 2026	

LEAN BC
ADDING VALUE

After

Define the improvement: Data Analysis (PFEP) and calculation of milk run based on AGV

[illegible]

What we have learned from our kaizen projects

- Enhanced comprehension and application of **root cause analysis** methodologies.
- Strengthened **inter-departmental collaboration and communication**.
- Elevated **team accountability and ownership** for process health and performance.
- Focusing of **standardized daily 5S inspection** routine.
- Acknowledged and integrated the critical role of **visual standards in operational excellence**.

Summary of the main results and benefits of the year.

Tangible (quantitative):

- Saved 39 413 € in annual gains – Project Q1
- Saved 52 032 € in annual gains – Project Q2
- Saved 797 285 € in annual gains – Project Q3
- Saved 68 256 € in annual gains – Project Q4

Total Saved 956 986 € in annual gains in 2026

Intangible (qualitative):

- Higher motivation and engagement
- Improved workplace organization
- Stronger problem-solving culture
- Strengthened inter-departmental collaboration
- Increased process ownership

Our long-term vision and commitment

- Sustainable Lean and Operational Excellence Culture (CI – continuous improvement culture)
- Standardization of processes and tools
- Waste elimination
- Involving teams and process owners in the problem solving activities
- Continue Kaizen training for all employees
- Introducing Lean Administration

We express our sincere gratitude to our management, colleagues, and the Lean Champions community for their invaluable support and collaboration throughout the year