



5S and Kaizen project presentation Q4 2025



Automation of low automated 3PL intralogistics activities and optimization of labor costs

Leader: Svetoslav Antonov / Petar Kapitanski

Team members: A. Kandzharova, V. Kasadecheva, D. Minkov, M. Carrasco
A. Al-Sharif, A. Mitov (3PL), F. Vanchev, V. Silbernagl

Project coach: Svetoslav Antonov

Champion: Atanas Apostolov (Plant Manager)

Field of activity: Electro-mechanical assembly for automotive

Location / Factory: Kostal Bulgaria Automotive Ltd. / Pazardzhik

Completion date: 22.06.2026

1. Problem selection

High level definition of the problem (potential):

High number of Headcount in 3PL due to low automated processes generates high cost for 3PL services.

Problem (potential):

30% of raw materials are delivered to assembly lines on pallets. KANBAN supply of high runners is managed by pallet replenishment. 18 Pallets per hour are delivered to production areas with low automated equipment.

Connection to the strategy plan:

Increasing of process automation provides high efficiency and low labor cost. Reduction of 3PL Headcount with 3FTE (1 per shift) respectively reduction of 3PL costs.

Annual cost savings approx. 72000€

Project scope:

PFEP (Plan For Every Part) for all pallet deliveries

Calculation of Milk Run routes and utilization

Definition of picking and unloading positions

Definition of AGV / AIV pallet trucks types

Collection and analysis of equipment offers



2. Target setting

Project Charter

KOSTAL

Problem Statement	
1. Low automated delivery method from WH to SF (production area)	
Goal Statement	
1. Automated delivery method from WH to SF using new AIV / AGV pallet trucks (reduce 3PL pallet manipulants with 1FTE per shift / 3 FTE in total, approx. 72000 € / annual)	
Scope	
First Process Step	Picking of RM pallet from AGV pallet truck
Last Process Step	Unloading of RM pallets from AGV pallet truck to SF area
In Scope	Automatic delivery process from WH to SF with AGV pallet trucks
Out of Scope	RM tugger train for box delivery

Timeline		
Phase	Planned Completion Date	Actual Completion Date
Define	31.10.2025	31.10.2025
Measure	05.11.2025	05.11.2025
Analyze	10.11.2025	On going
Implement	01.05.2026	Planned
Control	01.06.2026	Planned

Team			
Position	Person	Department	% of Time
OPX Facilitator	P. Kapitanski / M. Carrasco	APL4 / OPX	90%
Industrial Engineer	S. Antonov / A. Kandzharova	API2 / OPX	60%
Logistics Engineer	P. Kapitanski / V. Kasadecheva	APL4 / OPX	90%
3PL Partner	A. Mitov / B. Kabasanov	Ariete (3PL)	40%
Dept. Leader	F. Vanchev	APF	40%
Purchasing	D. Minkov	HE	40%

3. Team building

Team			
Position	Person	Department	% of Time
OPX Facilitator	P. Kapitanski / M. Carrasco	APL4 / OPX	90%
Industrial Engineer	S. Antonov / A. Kandzharova	API2 / OPX	60%
Logistics Engineer	P. Kapitanski / V. Kasadecheva	APL4 / OPX	90%
3PL Partner	A. Mitov / B. Kabasanov	Ariete (3PL)	40%
Dept. Leader	F. Vanchev	APF	40%
Purchasing	D. Minkov	HE	40%



4. Current state analysis (pictures)



- 30% of all RM are high runners
- 30% of all RM will be delivered on pallet
- 11 single pallet locations
- 1 FTE per shift (3 per day) for pallet replenishment



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5. Project plan

Implementation Plan

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Action Step	Description	Assigned To	Priority	Due Date	Status
PFEP of KOBU I (pallet replenishment)	Definition of pallet replenishment by projects	V. Kasadecheva	1	05.11.2025	done
KANBAN calculation of KOBU I pallet replenishment	Definition of 30% of all materials on pallets	V. Kasadecheva	1	05.11.2025	done
Milk Run data analysis	Consumption road and lap calculation (pallet repl.)	S. Antonov / P. Kapitanski	2	11.11.2025	done
Defining of equipment (AGV pallet trucks)	Internet research of the market	P. Kapitanski, M. Carrasco	2	21.11.2025	done
Offer collection of equipment (AGV pallet trucks)	Internet research of the market and contact with suppliers	D. Minkov / Team	2	15.11.2025	done
Offer analysis of equipment (AGV pallet trucks)	Discussion and alignment with KOSTAL standards	D. Minkov / Team			
Ordering of equipment (AGV pallet trucks)	Ordering and delivery conditions by supplier	D. Minkov / Team			
Installation of equipment (AGV pallet trucks)	Installation (mapping and task manager system)	S. Antonov / P. Kapitanski / Ariete (3PL) / Team			
Testing and installation control (AGV pallet trucks)	Testing condition and efficiency tracking	S. Antonov / P. Kapitanski / Ariete (3PL) / Team			

Integration of automated AI transportation system based on AGV pallet trucks / November 2025

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Implementation Roadmap

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Activity	Year	Month	Week	2025												2026																								status
				Nov				Dec				Jan				Feb				Mar				Apr				May				Jun								
				44	45	46	47	48	49	50	51	52	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
PFEP of KOBU I (pallet replenishment)																																				done				
KANBAN calculation of KOBU I pallet replenishment																																				done				
Milk Run data analysis																																				done				
Defining of equipment (AGV pallet trucks)																																				done				
Offer collection of equipment (AGV pallet trucks)																																				done				
Offer analysis of equipment (AGV pallet trucks)																																				tbd				
Ordering of equipment (AGV pallet trucks)																																				tbd				
Installation of equipment (AGV pallet trucks)																																				tbd				
Testing and installation control (AGV pallet trucks)																																				tbd				

08.01.2026

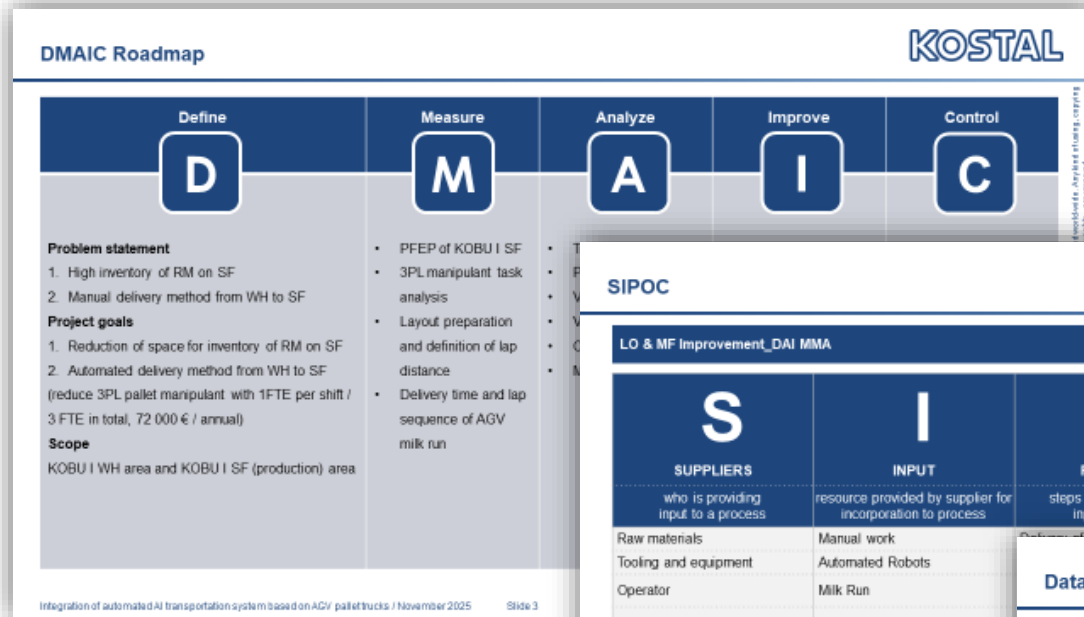
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AUTOMOBIL ELEKTRIK

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6a. Root cause analysis (data analysis) DMAIC & SIPOC - Lean 6Sigma Tools



Data Collection Plan

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Performance Measure	Operational Definitions	Who Will Collect Data?	When and Where?
AGV pallet truck specification	Different offers for equipment from market	P. Kapitanski, D. Minkov, M. Carrasco	Internet and market research
PFEP analysis of DAI MMA	KANBAN calculation	A. Kandzharova	Office Area
Video Recordings	Test of delivery method from WH to SF	P. Kapitanski, M. Carrasco	On the line, in the working hours of the line in different shifts
PFEP of KOBU I and pallet runners	30% of RM deliveries is on pallet	V. Kasadecheva	Office Area
Plant layout	Process description and layout definition	S. Antonov	Plant layout

Integration of automated AI transportation system based on AGV / pallet trucks / November 2025 Slide 9

AUTOMOBIL ELEKTRIK



Project	Material	Material Description	Storage location	Prodn Supply Ar	Hall	Storing Position	Qty in box, pcs	№ of Lines	pcs / h	OEE, %	pcs / h with OEE	Qty on pallet, pcs	Coverage pal / h
VW MLB GEN2	12085166	Socket . THP BLI+WI+ELE	2216	SA0294	HALL 1	Pallet	52	3	392	85%	333	832	0,40
VW MLB GEN2	12084013	Hold frame . ASM	2216	SA0294	HALL 1	Pallet	48	3	392	85%	333	768	0,51
VW MLB GEN2	12083128	Stator housing . THP	2216	SA0295	HALL 1	Pallet	72	3	392	85%	333	1152	0,34
VW MLB GEN2	12018318	Stator housing . THP	2216	SA0295	HALL 1	Pallet	72	3	392	85%	333	1152	0,34
VW MLB GEN2	12098988	Cover . THP	2216	SA0294	HALL 1	Pallet	74	3	392	85%	333	1184	0,33
VW MLB GEN2	12098986	Cover . THP	2216	SA0294	HALL 1	Pallet	74	3	392	85%	333	1184	0,33
VW MLB GEN2	12098985	Cover . THP	2216	SA0294	HALL 1	Pallet	100	3	392	85%	333	1600	0,25
DAI BR213	10125225	Top shroud . THP black BR213	2211	SA0253	HALL 1	Pallet	20	1	177	85%	150	320	0,55
DAI BR213	12062476	Carrier . THP	2211	SA0253	HALL 1	Pallet	40	1	177	85%	150	640	0,28
DAI BR213	10125251	Bottom shroud . THP black	2211	SA0253	HALL 1	Pallet	8	1	177	85%	150	128	1,38
VW MLBE	10286951	P.Housing THP mit Biegefeder pre-assy	2215	SA0291	HALL 1	Pallet	96	3	318	85%	270	1536	0,21
HALL 1													5
VW MQB RED	10035578	Socket . THP	2206	SA0093	HALL 2	Pallet	60	3	264	85%	224	960	0,28
VW MQB RED	10044364	Socket . THP	2206	SA0093	HALL 2	Pallet	60	3	264	85%	224	960	0,28
VW MQB RED	10321783	P.Stator housing ASM cpl.	2206	SA0089	HALL 2	Pallet	108	3	264	85%	224	1728	0,15
VW MQB RED	10345839	Start engine Sw itch .VW_MQB.	2206	SA0091	HALL 2	Pallet	20	3	264	85%	224	320	0,83
VW MQB RED	10345839	Start engine Sw itch .VW_MQB.	2206	SA0093	HALL 2	Pallet	20	3	264	85%	224	320	0,83
VW MQB RED	10321781	P.Stator housing ASM cpl.	2206	SA0089	HALL 2	Pallet	108	3	450	85%	383	1728	0,26
VW AU GEN2	12143293	Bezel . THP Printed final part	2225	SA0341	HALL 2	Pallet	14	1	133	85%	113	224	0,59
VW AU GEN2	12145790	Socket . THP BLI+WI+ELE	2225	SA0341	HALL 2	Pallet	32	1	133	85%	113	512	0,26
VW AU GEN2	12176392	Dow n holder . ASM	2225	SA0341	HALL 2	Pallet	28	1	133	85%	113	448	0,30
VW AU GEN5	12219726	Bezel . ASM Front High w/o DMC	2225	SA0341	HALL 2	Pallet	14	1	133	85%	113	224	0,59
HALL 2													5
FORD B479/710	10123724	Carrier . THP	2207	SA0099	HALL 3	Pallet	30	1	185	85%	157	480	0,39
FORD B479/710	12102473	Carrier . THP V710 SCM	2207	SA0098	HALL 3	Pallet	30	1	185	85%	157	480	0,39
DAI MMA	12121848	Stator housing . THP	2224	SA0336	HALL 3	Pallet	48	2	275	85%	234	768	0,36
DAI MMA	12123056	Carrier . THP	2224	SA0336	HALL 3	Pallet	44	2	300	85%	255	704	0,43
BMW 35UP/ PL7	10293411	Stator housing . THP	2210	SA0282	HALL 3	Pallet	48	1	232	85%	197	768	0,30
HALL 3													2
OPEL COM 2023	12095527	Carrier . THP	2223	SA0331	HALL 5	Pallet	40	1	171	85%	145	640	0,27
OPEL COM 2023	12095737	Stator housing . THP	2223	SA0331	HALL 5	Pallet	64	1	171	85%	145	1024	0,17
OPEL COM 2016	12073589	Carrier . THP COM2016 P1VO	2208	SA0111	HALL 5	Pallet	32	1	148	85%	126	512	0,29
DAI MFA II	12126815	Bottom shroud . THP VDI 3400/36 black VS	2214	SA0282	HALL 5	Pallet	5	2	290	85%	247	80	3,63
DAI MFA II	12065112	Carrier . THP	2214	SA0282	HALL 5	Pallet	46	2	290	85%	247	736	0,39
DAI MFA II	12000053	Stator housing . THP	2214	SA0282	HALL 5	Pallet	84	2	290	85%	247	1344	0,22
DAI MFA II	10288204	Top shroud . THP VDI 3400/36 black BR177	2214	SA0282	HALL 5	Pallet	20	2	290	85%	247	320	0,91
HALL 5													6

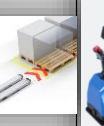
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7. Implementation of solution (Defining of Equipment)



7. Implementation of solution (Offer Collection)

Researched AGVs (Automated Guided Vehicles) / AIVs (Autonomous Intelligent Vehicles) Pallet trucks at KOSTAL																
Researched by region	Europe +							China							North America	
Kostal Location	KOSMA/KEM-MK							KOSMA/KEM-MK							KOSMA/KEM-MK	
Supplier / Distributer	EP Equipment	Hikrobot	Hikrobot	Filics	Autoxing / Synobotics	Autoxing / Synobotics	Autoxing / Synobotics	AITEN Robots	Hulkman / JINAN HULK	Nipper	Toyota Material Handl	Karter	Quicktron	Hikrobot	ZTXAuto	
Based in	CN - Hangzhou	CN - Hangzhou	CN - Hangzhou	GER - München	CN - Peking	CN - Peking	CN - Peking	CN - Suzhou	CN - Jinan	Netherlands - Bergijk			CN - Shanghai			
Headquarter	Belgium - Huizingen	Asia, Europe, America (Me	Asia, Europe, America (Me	no	IRL - Synobotics	IRL - Synobotics	IRL - Synobotics	Shanghai / Suzhou / Barcelo	Shanghai / Suzhou / Barcelo	Nagoya / Seoul			US, U.K., Germany, Spain, ...			
Subsidiaries	XP 15	MR-F3-1500	MR-F4-1000-C(H)	Filics Unit	FT 1500	FT 2000	L-600	MP 2	LT81000	AGV V4	LEVIO LAE250 Autopilot	FD140				
Modell																
Picture																
Link	https://ep-equipment.com	https://www.hikrobot.com	https://www.hikrobot.com	https://filics.eu/products	https://de.autoxing.de	https://de.autoxing.de	https://de.autoxing.com/product/lift-amr	https://www.aitenrobots.com	https://www.agv-fork.com	https://nipper.nl/en	https://www.toyota.com	https://karter-amr.com	https://handing.quicktron.com/en_US/products/fl-series			
Description	FMR (Forklift Mobile Robot)	FMR (Forklift Mobile Robot)	FMR (Forklift Mobile Robot)	- just in development;												
Comment	- The XP15 is both an autonomous mobile	- pallet truck	- forklift													
Usage (planned in future)																
Dimensions [mm]	1695 x 842 x 1469	1632 x 870 x 1990	1746 x 1073 x 1915		1610 x 824 x 2120	1645 x 850 x 1890	950 x 650 x 1240	1475 x 735 x 450 mm	1657 x 785 x 280/1300	1767 x 814 x 2035		1440 x 648 x 275 mm				
Control																
Route programming					- Production floor maps are created by pushing AIV around the area. The internal	- Production floor maps are created by pushing AIV around the area. The internal	- Production floor maps are created by pushing AIV around the area. The internal			-BlueBotics software	-BlueBotics software	-BlueBotics software				
Navigation Method	- uses a 2D visual navigation system that references points on the ceiling: "navigation by the stars." - LIDAR - Physical bumper strip	Laser SLAM	Laser SLAM	Laser navigation LIDAR Kamera Erkennung	Free Navigation / Track Navigation / Hybrid Navigation / Follow	Free Navigation / Track Navigation / Hybrid Navigation / Follow	Free Navigation / Track Navigation / Hybrid Navigation / Follow			SLAM Positioning - Support Mobile APP Operation - Full Security Protection Guarantees	natural feature navigation					
Maximum Speed (loaded/unloaded) [m/s]	1.0 m/s*	1.5 m/s*	1.2 m/s*	1.2 m/s / 2 m/s*	1.5 m/s*	1.5 m/s*	1.2 m/s*	0.6 m/s / 0.7 m/s*	0.7 m/s / 1.0 m/s*	1.5 m/s*	2.2 m/s*	1.44 m/s*				
Traction motor	no	no	no	yes	no	no	yes			4 omnidirectional drives			no			
Omnidirectional	no	no	no	yes	no	no	yes			no	yes		no			
Positioning Accuracy [mm / °]	+/- 20mm 92 mm	+/- 10mm / +/-1°	+/- 10mm / +/-1°	90 mm	+/- 5 mm / +/-1°	+/- 5 mm / +/-1°	10 mm*	+/- 10mm*	+/- 10mm*	+/- 10mm*		+/- 10mm*				
Maximum Lifting height [mm]		200 mm	2081 mm		210 mm	205 mm		85 mm (low 155 - high 240 mm)	60 (low 88 - high 238 mm)	150 (low 88 - high 238 mm)		37 mm				
Fork Size [mm]	55 x 170 x 1220 mm*	60 x 175 x 1234 mm*	65 x 160 x 1279 mm*	2x (92 x 200 x 1350 mm)	55 x 170 x 1150 mm*	60 x 170 x 1150 mm*				98 x 184 x 1200 mm*		1200 mm*				
Minimum Fork height [mm]	90 mm	75 mm	81 mm	92 mm	85 mm	85 mm				88 mm						
Loading area [mm]							940 x 810 mm*									
Wheelbase [mm]	1210 mm	1103 mm	990,3 mm		1150 mm	1150 mm										
Turning radius [mm]	1500 mm	1244 mm			1360 mm	1360 mm										
Payload								990 mm	1200 mm			1700 mm				
Maximum Load Capacity [kg]	1500 kg	1500 kg	1000 kg	1000 kg	1500 kg*	2000 kg*	600 kg*	1000 kg*	1000 kg*	1200 kg*	2500 kg*	1500 kg*				
Empty Vehicle Weight [kg]	335 kg	497 kg	746 kg	each skid is 55kg	370 kg*	370 kg*	100 kg*		260 kg*	330 kg*		120 kg				
Battery																
Type	24V / 60Ah / Li-ion battery	48 V / 44 Ah	48 V / 70 Ah	LiFePO4	24V / 100Ah	48V / 50Ah		48 V / 30 Ah	48 V / 36Ah / LiFePO4	48V / LiFePO4		24 V / 50 Ah				



Problem
selection

Target
setting

Team
building

Current
state

Project
plan

Root cause
analysis

Implementation of
solution

Target-result
control

Standardization

Deployment

5S

8. Target- result control

....to be implemented in
06.2026

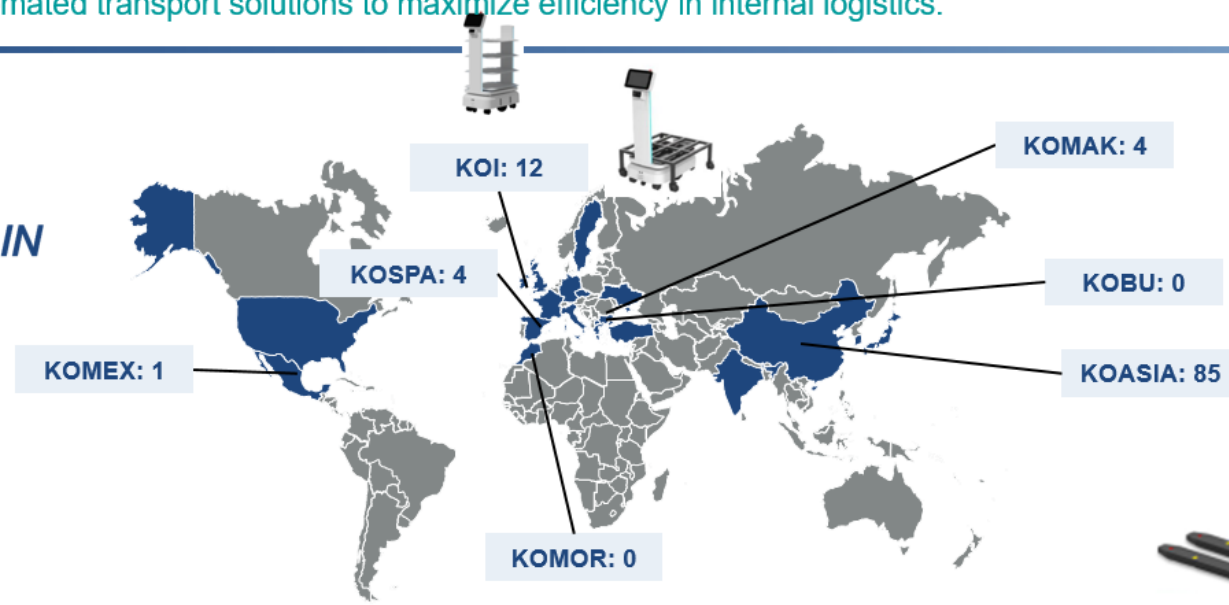
9. Standardization

Focus topic: Digital Transformation & Automation

OKR A.2.1: Introduce automated transport solutions to maximize efficiency in internal logistics.

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ONE
SUPPLY CHAIN



	Key Facts	KOMEX	KOMOR	KOSPA	KOI	KOMAK	KOBUS	KOASIA
2025	- No. of AIVs: - Actual use cases: % of product. area: - Savings	1 AMR (tugger) - Injection molding 45% 3 FTE		4 AMR - Assembly 30% 2 FTE	6 AGV / 6 AMR - Assy & Electronic 90% - Less mat. in prod. area	1 AGV / 3 AMR - Electronic 20% 2 FTE		28 AGV / 57 AMR - Specific areas - From 50 – 90% 35 FTE
2026	- Outlook: % of product. area:	+ 8 AMR 53%	KOMOR: under revision	+ 6 AMR 80%	- same - same	+ 10 AMR 80%	+ 6 AMR 90%	+ 54 AMR 90 – 100%

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10. Deployment

Focus topic: Digital Transformation & Automation

OKR A.2.1: Introduce automated transport solutions to maximize efficiency in internal logistics.

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Next steps / outlook / expected Savings 2026

Next Steps

- Strengthen collaboration and open communication between plants by sharing updates, concerns, and best practices.
- Arrange visits to observe already implemented automation solutions and share experiences.

Outlook

- Increase the percentage of productive area covered by automated material supply in the different KOSTAL plants.
- Explore further savings through integration of the robot management system (RCS) with KOSTAL's SAP system to automate the creation, management, and assignment of material transport tasks based on key production events, providing real-time feedback and delivering greater efficiency, less manual work, and a more connected internal logistics system.

Expected Savings 2026

- Most KOSTAL plants have confirmed additional automation projects for 2026.
- So far, approximately 0.5 FTE saved per AMR. similar reductions should be expected in 2026
- Reduce component stock in production areas to free up more space for production.

Problem
selectionTarget
settingTeam
buildingCurrent
stateProject
planRoot cause
analysisImplementation of
solutionTarget-result
control

Standardization

Deployment

5S

11.5 S

First Audit Score – 96%

Проверочен лист по 5S												
Завод:	Костал	зона:	MFA DAI				дата	25.11.2025				
Одитор:	С. Нешевски	1S	2S	3S	4S	5S	Общо - Макс. 100 т.					
Общо точки		20	17	19	20	20	96					
Бр. Въпроси		5	5	5	5	5	25					
Средно точки		4.0	3.4	3.8	4.0	4.0	3.8					
Дейности по 1S - СОРТИРАНЕ							0	1	2	3	4	Заб.
1,01	На работното място се намират само нужните материали, НзП, и др. Материали, които не са нужни за текущата работа са отстранени от работното място.					4					x	
1,02	На работното място се намират само нужните инструменти, приспособления и др.п. Инструменти, които не са нужни за текущата работа са отстранени от работното място.					4					x	
1,03	На работното място се намира само необходимото оборудване . Машини, стелажки, шкафове, маси и др. които са излезли от употреба или ненужни за текущото производство са отстранени от работното пространство.					4					x	
1,04	На работното място се намира само необходимата документация (вкл. информация по таблата). Остарели или ненужни доклади, бележки, обяви, афиши и др. са отстранени.					4					x	
1,05	В стандарта по 5S (раб. инструкция/схема и пр.) за работното място са дефинирани всички нужни предмети за мястото					4					x	
Дейности по 2S - СИСТЕМНО ПОДРЕЖДАНЕ							0	1	2	3	4	Заб.
2,01	Проходите са ясно идентифицирани и незапречени. Изходите са ясно дефинирани и незапречени.					2			x			A
2,02	Местата за всички предмети - е ясно дефинирано, очертано и маркирано по разбираем начин. (<i>предмети по пода</i> - кутии, НзП, материали, колички, почистващи средства, палети за стружки и др.; <i>предмети по други места</i> - инструменти, стелажки и пр.)					4					x	
2,03	Количествата за материали, консумативи и НзП са ясно дефинирани, очертани и надписани.					3				x		A
2,04	Поставени са етикети и надписи за материали, НзП, машини, участъци, лавици и пр.					4					x	
2,05	Документите (вкл. информация по таблата) са четливо надписани и имат ясно дефинирано място.					4					x	
Дейности по 3S - СИЯЙНА ЧИСТОТА							0	1	2	3	4	Заб.
3,01	Подовете са чисти от мръсотия, прах, отпадъци, компоненти, опаковъчен материал и др. Маркировките по пода са в добро състояние. Стените, преградите, колоните , са чисти.					4					x	
3,02	Машините са чисти от прах, масло, мръсотия и пр. (работни плотове, капацити, стойки с материали и др.)					3				x		B
3,03	Всички предмети - работни маси, кутии, кутии, кофи, инструменти, и др. са чисти, не са разкъсани или повредени. Те са подредени по местата си.					4					x	
3,04	Документите са чисти, не са повредени, и се съхраняват на местата си.					4					x	
3,05	Материалите и консумативите за почистване се съхраняват на точно определено място с подходяща маркировка и са лесно достъпни при нужда.					4					x	

Second Audit Score - 100%

Проверочен лист по 5S												
Завод:	Костал	зона:	MFA DAI			дата	17.дек.25					
Одитор:	С. Нешевски	1S	2S	3S	4S	5S	Общо - Макс. 100 т.					
Общо точки		20	20	20	20	20	100					
Бр. Въпроси		5	5	5	5	5	25					
Средно точки		4.0	4.0	4.0	4.0	4.0	4.0					
Дейности по 1S - СОРТИРАНЕ							0	1	2	3	4	Заб.
1,01	На работното място се намират само нужните материали, НзП, и др. Материали, които не са нужни за текущата работа са отстранени от работното място.					4					x	
1,02	На работното място се намират само нужните инструменти, приспособления и др.п. Инструменти, които не са нужни за текущата работа са отстранени от работното място.					4					x	
1,03	На работното място се намира само необходимото оборудване . Машини, стелажки, шкафове, маси и др. които са излезли от употреба или ненужни за текущото производство са отстранени от работното пространство.					4					x	
1,04	На работното място се намира само необходимата документация (вкл. информация по таблата). Остарели или ненужни доклади, бележки, обяви, афиши и др. са отстранени.					4					x	
1,05	В стандарта по 5S (раб. инструкция/схема и пр.) за работното място са дефинирани всички нужни предмети за мястото					4					x	
Дейности по 2S - СИСТЕМНО ПОДРЕЖДАНЕ							0	1	2	3	4	Заб.
2,01	Проходите са ясно идентифицирани и незапречени. Изходите са ясно дефинирани и незапречени.					4					x	A
2,02	Местата за всички предмети - е ясно дефинирано, очертано и маркирано по разбираем начин. (<i>предмети по пода</i> - кутии, НзП, материали, колички, почистващи средства, палети за стружки и др.; <i>предмети по други места</i> - инструменти, стелажки и пр.)					4					x	
2,03	Количествата за материали, консумативи и НзП са ясно дефинирани, очертани и надписани.					4					x	A
2,04	Поставени са етикети и надписи за материали, НзП, машини, участъци, лавици и пр.					4					x	
2,05	Документите (вкл. информация по таблата) са четливо надписани и имат ясно дефинирано място.					4					x	
Дейности по 3S - СИЯЙНА ЧИСТОТА							0	1	2	3	4	Заб.
3,01	Подовете са чисти от мръсотия, прах, отпадъци, компоненти, опаковъчен материал и др. Маркировките по пода са в добро състояние. Стените, преградите, колоните , са чисти.					4					x	
3,02	Машините са чисти от прах, масло, мръсотия и пр. (работни плотове, капацити, стойки с материали и др.)					4					x	B
3,03	Всички предмети - работни маси, кутии, кутии, кофи, инструменти, и др. са чисти, не са разкъсани или повредени. Те са подредени по местата си.					4					x	
3,04	Документите са чисти, не са повредени, и се съхраняват на местата си.					4					x	
3,05	Материалите и консумативите за почистване се съхраняват на точно определено място с подходяща маркировка и са лесно достъпни при нужда.					4					x	

11.5 S

Before

ПЛАН ЗА ПОДОБРЕНИЕ			
Заб.	Задача	Отг.	Срок
А	Подобряване на прохода между SRC BMW и статор BMW	A. Ginin	16.12.2025
Б	Да се провери инструкцията за Автономна Поддръжка AG130 SRC DAI	K. Gergi	16.12.2025



After

ПЛАН ЗА ПОДОБРЕНИЕ			
Заб.	Задача	Отг.	Срок
А	Подобряване на прохода между SRC BMW и статор BMW	A. Ginin	16.12.2025
Б	Да се провери инструкцията за Автономна Поддръжка AG130 SRC DAI	K. Gergi	16.12.2025

