Supply Chain Optimisation in the Automotive Industry

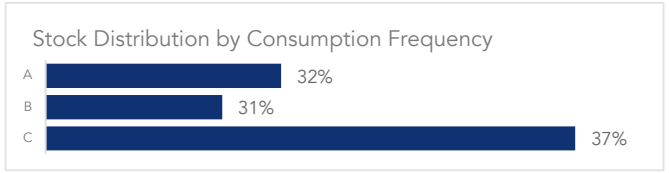
KAIZEN™ INSTITUTE

IMAGES BEFORE

Comparison: Distant Supplier vs. Local Supplier

Ref	Description	Distant Supplier Price ($)	Mexico Supplier Price (Local)	real total price of current consumption distant supplier	logistics cost over cost per piece	China vs. local price	% Distant vs. local price
1304790	SCREW M6	$ 0,02792	$ 0,03658	$ 0,0381	27%	**$ 0,00153**	**4%**
130008002	SLEEVE	$ 0,03864	$ 0,04850	$ 0,0506	24%	**$ 0,00181**	**4%**
1310770	SCREW M4	$ 0,00993	$ 0,02380	$ 0,0366	73%	**$ 0,01280**	**35%**
13149041	SPINDLE	$ 1,11000	$ 1,46300	$ 1,2130	8%	**- $0,28295**	**-23%**

High level of stock for less-frequently-consumed references



IMAGES AFTER

Raw Material Pull Planning

Country	Supplier	Stock Value	% Stock Value	Turnover	Months Stock	Leadtime (days)	Freq. Delivery	Traff	Stock months goal	Goal Reduction	goal free cash flow ($)	goal free cash flow (€)
[redacted]		[redacted]	11,0%	3,1	3,9	90	30	60	3,0	24%	$ 1.074.054,88	€ 49.956,04
[redacted]		[redacted]	9,1%	4,2	2,8	90	15	50	2,4	15%	$ 557.526,66	€ 25.931,47
[redacted]		[redacted]	6,5%	2,5	4,9	90	15	50	2,4	50%	$ 1.352.954,27	€ 62.928,11
[redacted]		[redacted]	5,6%	3,3	3,7	50	15	50	2,4	34%	$ 795.035,57	€ 36.978,40
[redacted]		[redacted]	1,4%	2,1	5,7	50	15	50	2,4	57%	$ 321.306,28	€ 14.944,48
[redacted]		[redacted]	1,3%	3,3	3,6	50	15	50	2,4	33%	$ 174.311,11	€ 8.107,49
[redacted]		[redacted]	0,8%	2,3	5,2	50	15	50	2,4	53%	$ 184.454,46	€ 8.579,28
CHINA							GOAL FREE CASH FLOW:				**$ 4.459.643,22**	**€ 207.425,27**

Pull Planning of Finished Products and WIP

Production Line	daily consumption value finished product references	Goal Stock Days	Average stock value OBJECTIVE Finished product references	Average REAL stock value Finished product references	GAP
[redacted]	$ 138.751,48	$ 472.608,87	3,00	$ 416.254,43	14%
[redacted]	$ 163.467,35	$ 254.631,83	2,50	$ 408.668,37	-38%
[redacted]	$ 39.682,26	$ 105.284,14	2,50	$ 99.205,64	6%
[redacted]	$ 19.107,89	$ 24.108,09	2,50	$ 47.769,73	-50%
[redacted]	$ 2.748.478,74	$ 3.114.470,32	2,50	$ 6.871.196,85	-55%
[redacted]	$ 57.337,43	$ 370.077,00	3,00	$ 172.012,30	115%
[redacted]	$ 130.527,80	$ 853.190,95	3,00	$ 391.583,39	118%
[redacted]	$ 29.623,01	$ 90.233,85	5,00	$ 148.115,06	-39%
[redacted]	$ 254.667,12	$ 111.636,89	2,50	$ 636.667,79	-82%
TOTAL	**$ 3.581.643,07**	**$ 5.396.241,95**	**2,57**	**$ 9.191.473,55**	**-41%**

Problem

- **Low level of stock turnover** for components and raw materials
- **Large volume** of **WIP**
- **Long lead time** for purchased components
- 500k€ spent on **exceptional transport costs**

Root Causes

- **Purchase of components and raw materials in accordance with forecasts**
- 50% of components sourced from **distant suppliers**
- **Lack of visibility of stock levels** for each reference
- **Information gaps** between storage and component consumption

Solutions

- **Pull planning** for the entire value chain
- **Negotiation of delivery lead times** and definition **of order points** for replacement of components and raw materials
- **Development of suppliers located within closer proximity,** improving the service conditions
- **Partnerships with suppliers** for the consignment of raw materials

Benefits

£400k/year
+
£650k
Cash flow