



Radically reduce the break-even point

VP operation – Nir Kessler



A worldwide leader in developing, manufacturing and marketing High Security products for institutional, commercial, industrial, residential and automotive applications.

ASSA ABLOY



- 100 companies in over 40 countries
- Around 41,000 employees and annual sales of over € 4.5 billion

Our customers - you!



What is Mul-T-Lock operations

Yavne Site



SCM

Strategic
Component
Manufacturer(s)

SAC

Strategic
Assembly
Centre



RDC

Regional
Distribution
Centre



RCH

Regional
Configuration
Hub



- 13 selling units
- 67 distributors
- Domestic market



RCH

Regional
Configuration
Hub

Wide spread of customers



13
Selling
units

~80
Countries

20,000
Service
centres

~100,000,000
Users

Our operational challenges

- Many local markets create long list of SKUs
- No backlog, 30% orders received after the month starts
- Unstable demand for local applications

High Mix – Low Volume

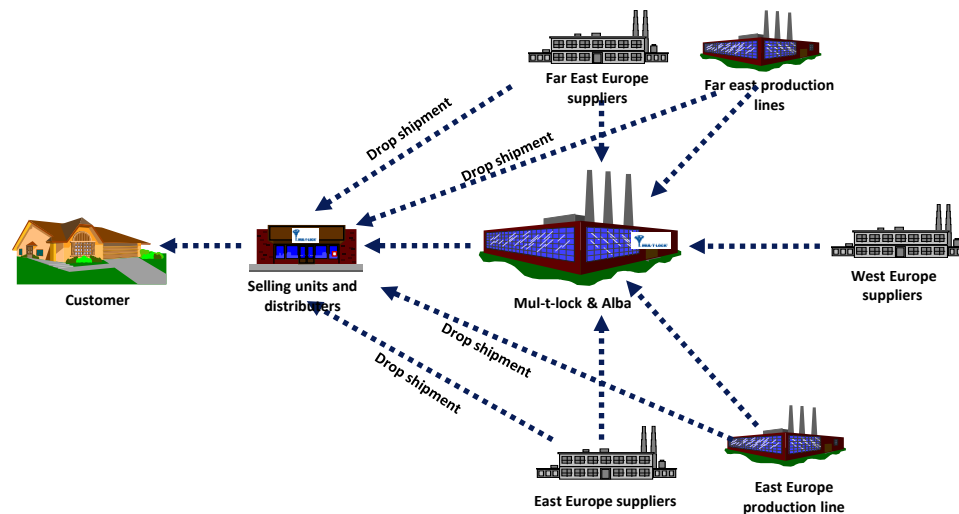


Challenges

- Request for 4,000 different applications in the same lead time

The non-core

We developed a completely new supply chain
in the last 2 years



Our New Supply Chain



AA Romania – 5 new lines



AA CS – 3 new lines



China - 3 new lines



Key point for MTL outsource experience



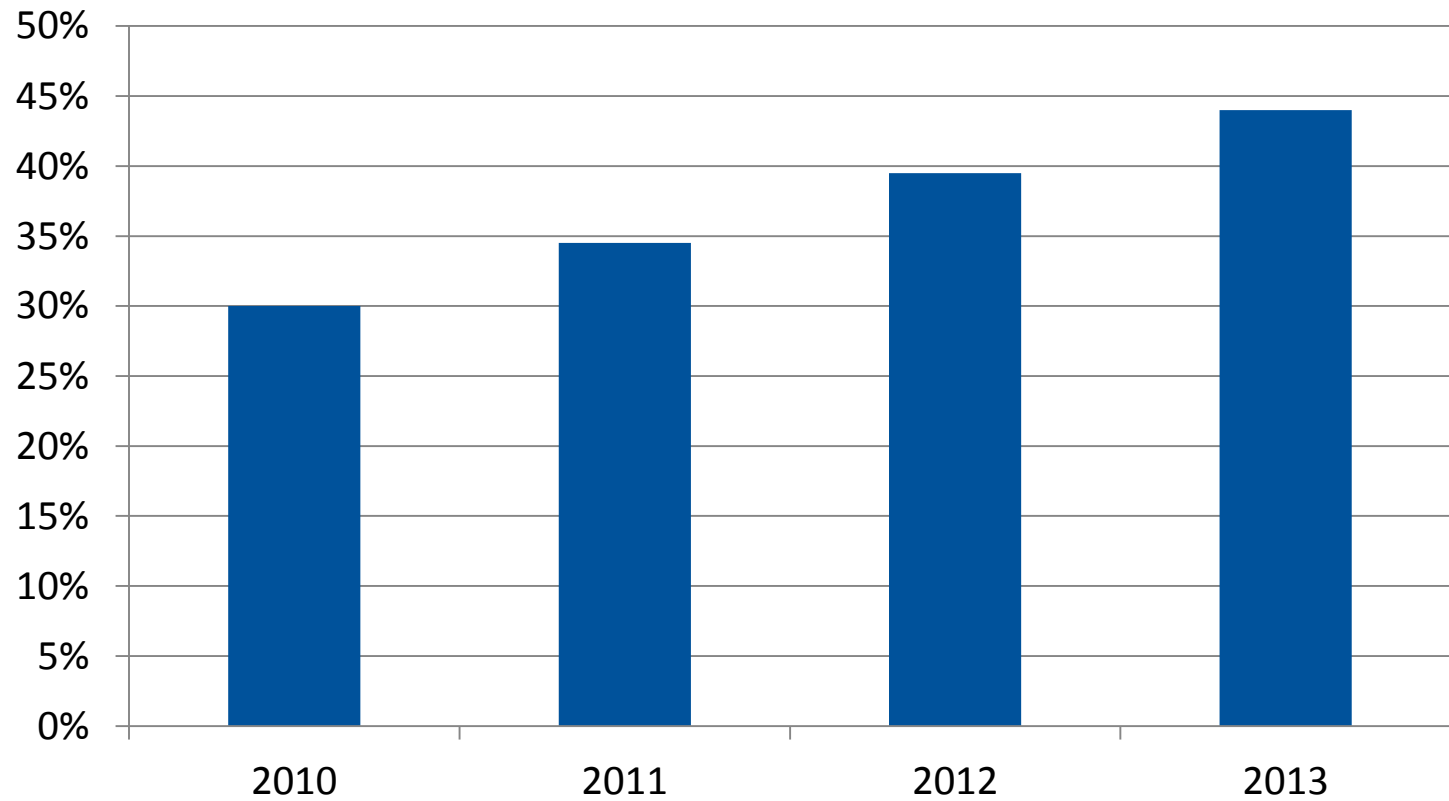
- Build the right team and define new organizational structure
- Design a seamless flow process from day 1
- Use lean logistic principles to design the outsourced line
- Allocate budget for investing in the outsourced lines
- Reduce SKUs before moving the production lines



LCC Sourcing trend

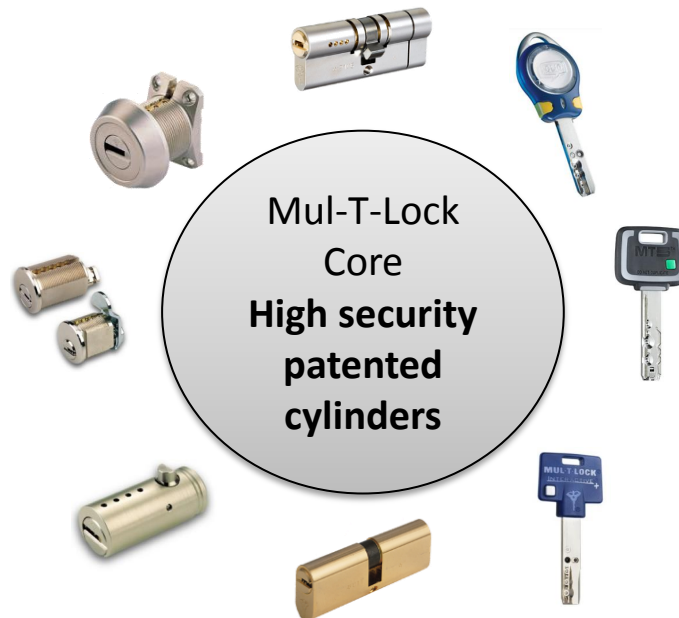


LCC sourcing



Our core

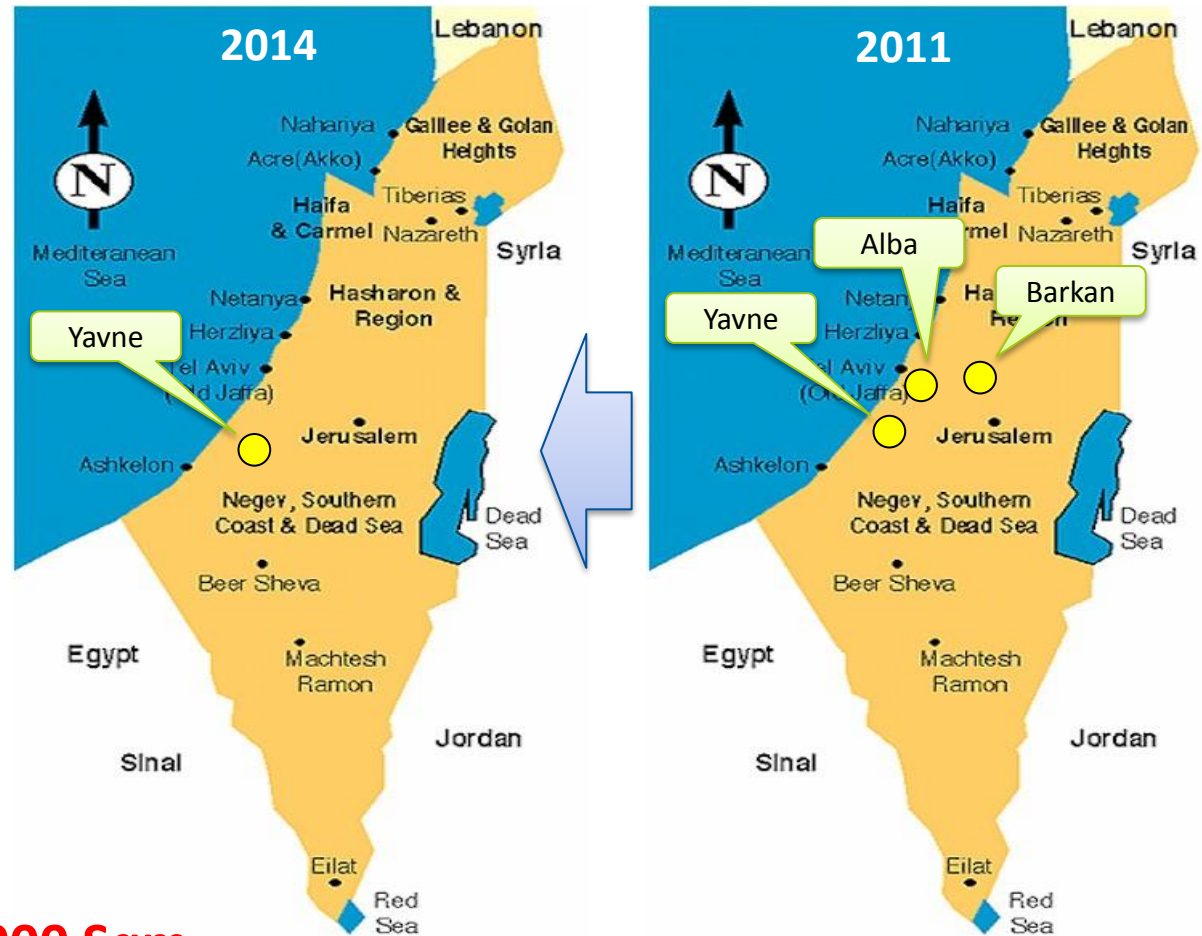
We use the MFP projects, Lean, product rationalization to increase our efficiency



Consolidation

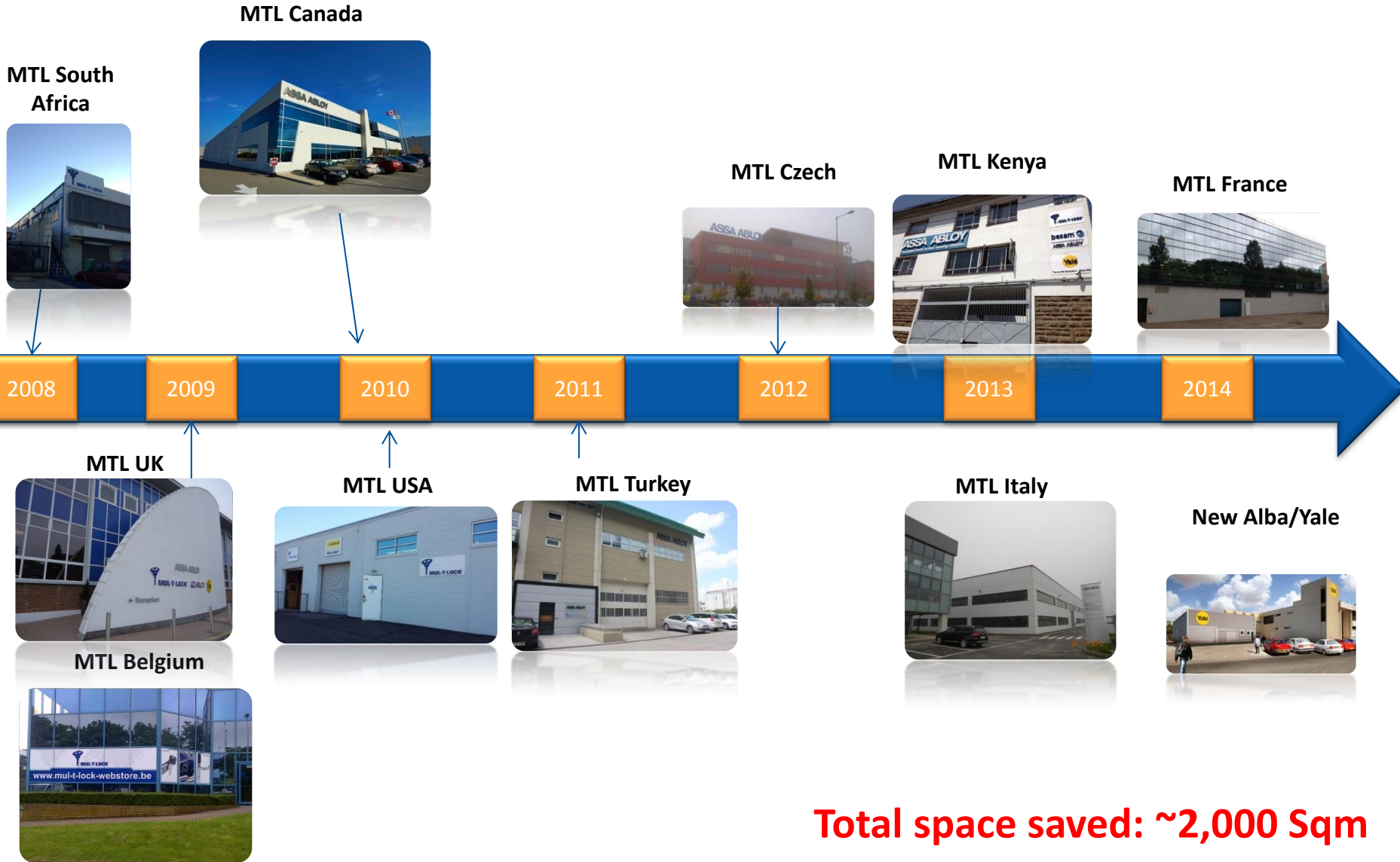


All Israel manufacturing into one site in Yavne



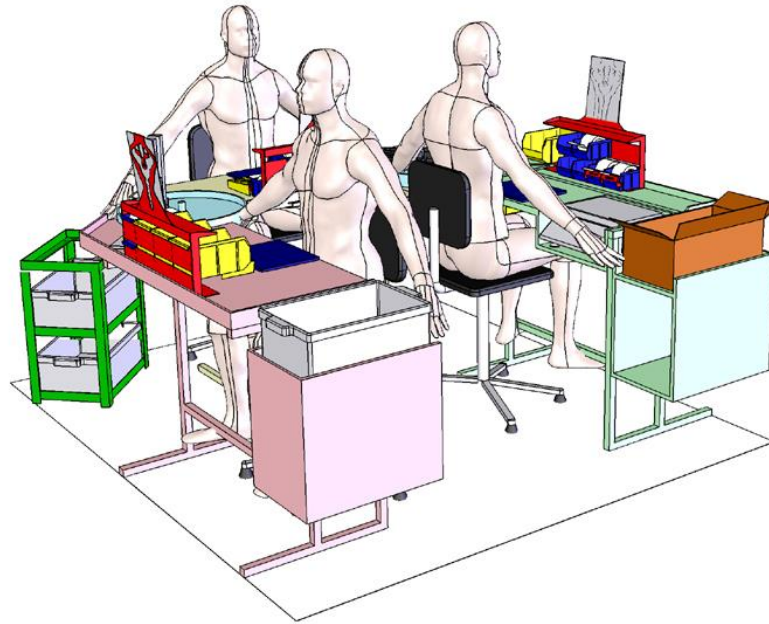
Total space saved: ~6,000 Sqm

Consolidation of configuration hubs



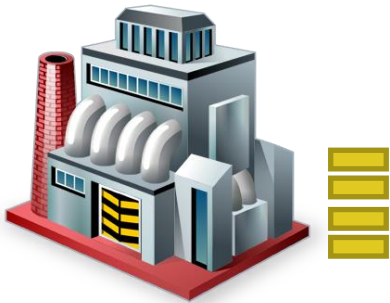
Redefine our flow and lead-time

Move to make to order



The move to make to orders

Small production batches



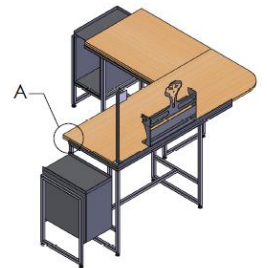
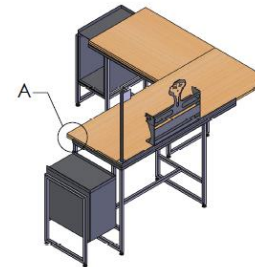
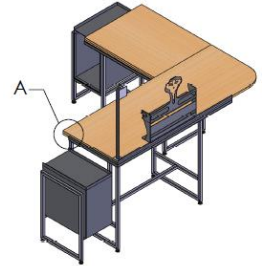
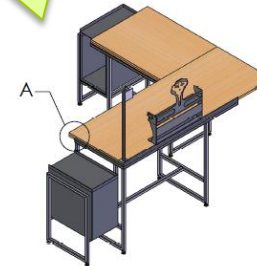
Kanban Inventory systems



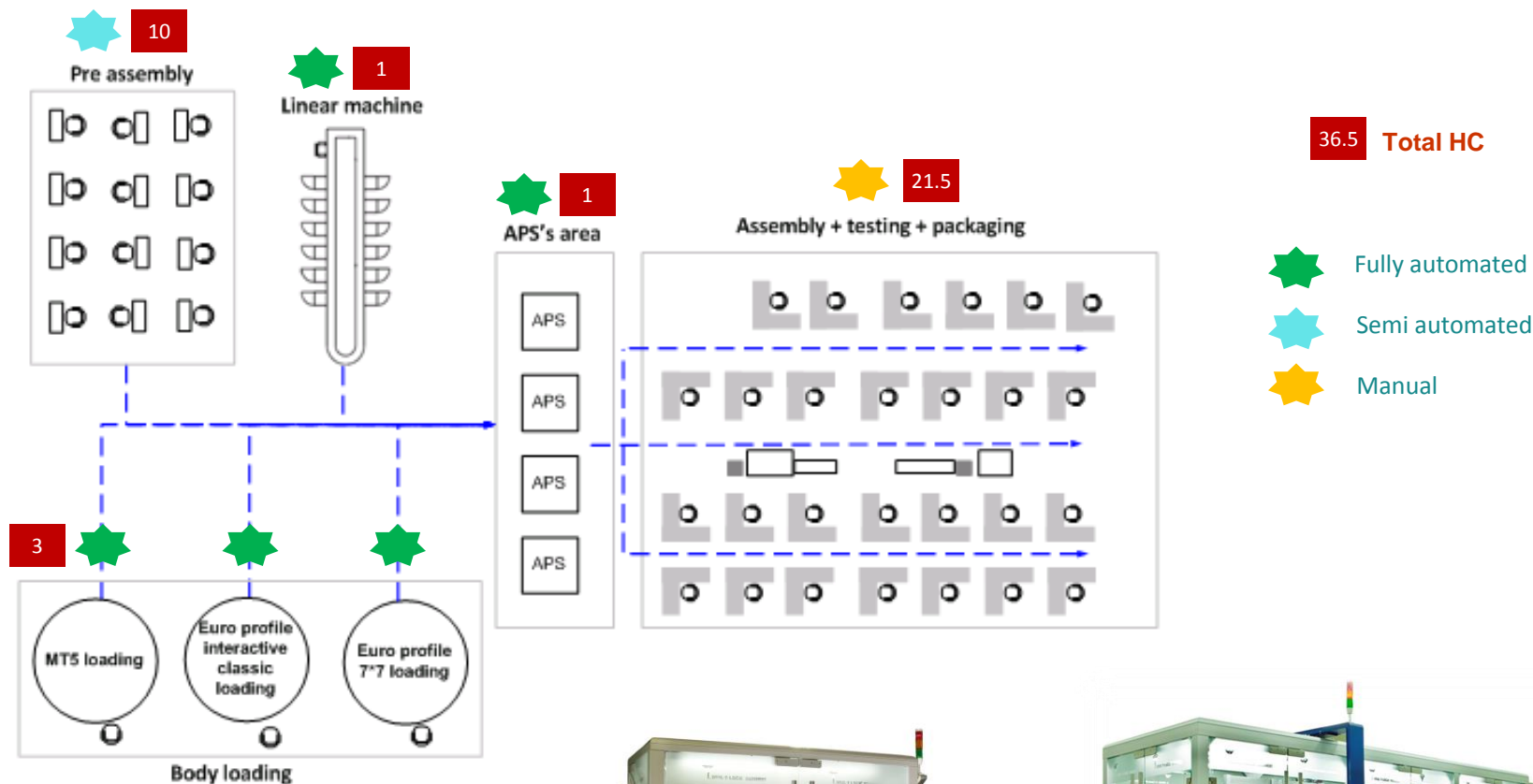
Sub assembly



Automation in the assembly



Automation in Mul-T-Lock assembly



Full *visual management system* supported by a *seamless flow process*

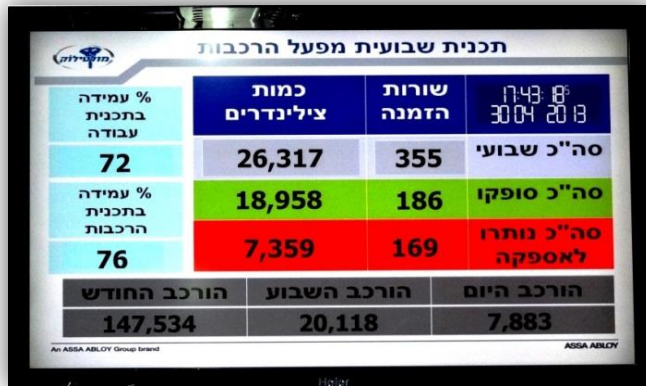


Our Visual Management



Better on line decision making on the production floor

Production orders



Bottleneck machines



Maintenance boards (TPM)



Output management



MTL Parking system for resource planning



Continuous improvement culture



Our mini kaizen system

טופס עדכון לפעילויות של שיפור מתמיד (Mini Kaizens)	
26/01/2007	האריך
	חום פעילות השיפור
	סוג פעילות השיפור
	שם פעילות השיפור
	תואר נגב קיים
	תואר פעילות השיפור
	עמדות מולות בש"ח
	אופן הישגם עמדות העלויות

Mini Kaizen Activity-Working Environment Improvement



Suggested By: Arnold Nimrovski

Yearly savings
ILS 18K

Current State

Existence of oil steam in the machine surroundings, slippery and dangerous

Activity Improvement

Addition of an Oil vacuum cleaner

Result

- 50L savings of oil a month
- 1 hour savings for cleaning per day
- Safe and clean working environment



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ASSA ABLOY

**21 teams
take part in
the process**

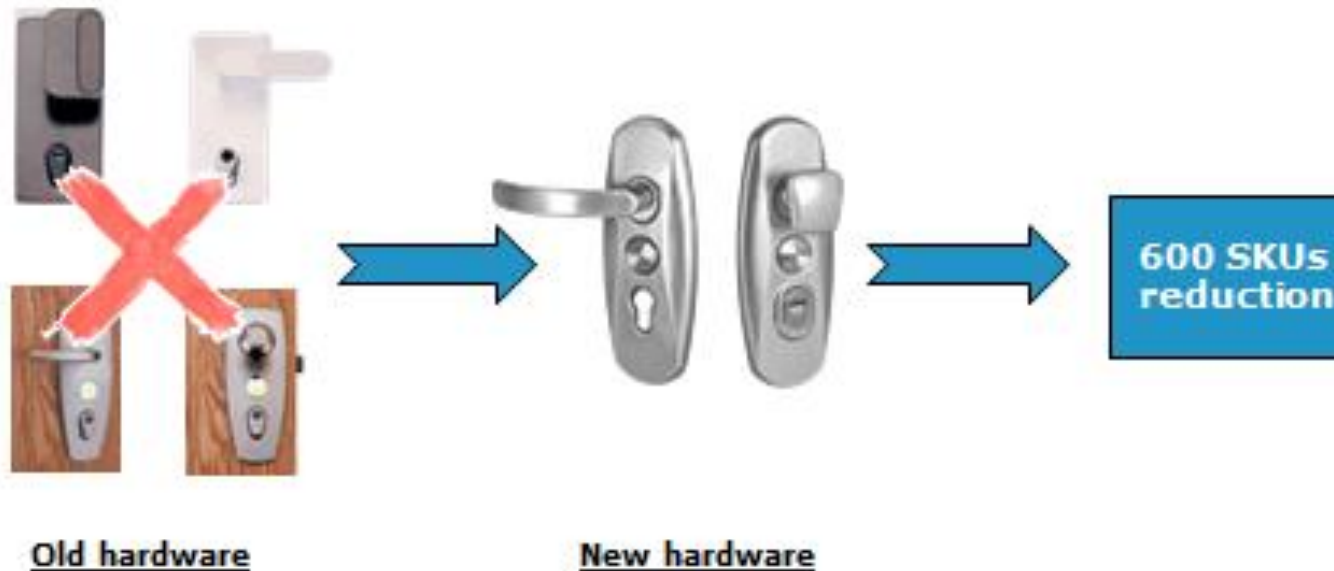
**336 Mini
Kaizens
submitted
in 2013**

**ILS 1.2M
savings
in 2013**

Product rationalization

Product rationalization

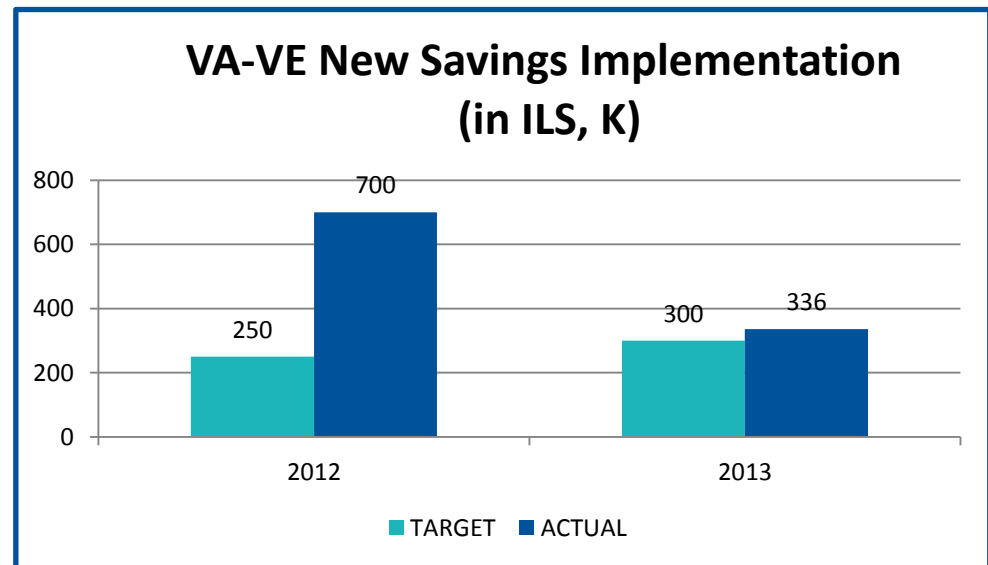
Company / Business Unit	No. of SKUs Dec. 2010	No. of SKUs June 2013
Mul-T-Lock – SKUs	68,000	34,000



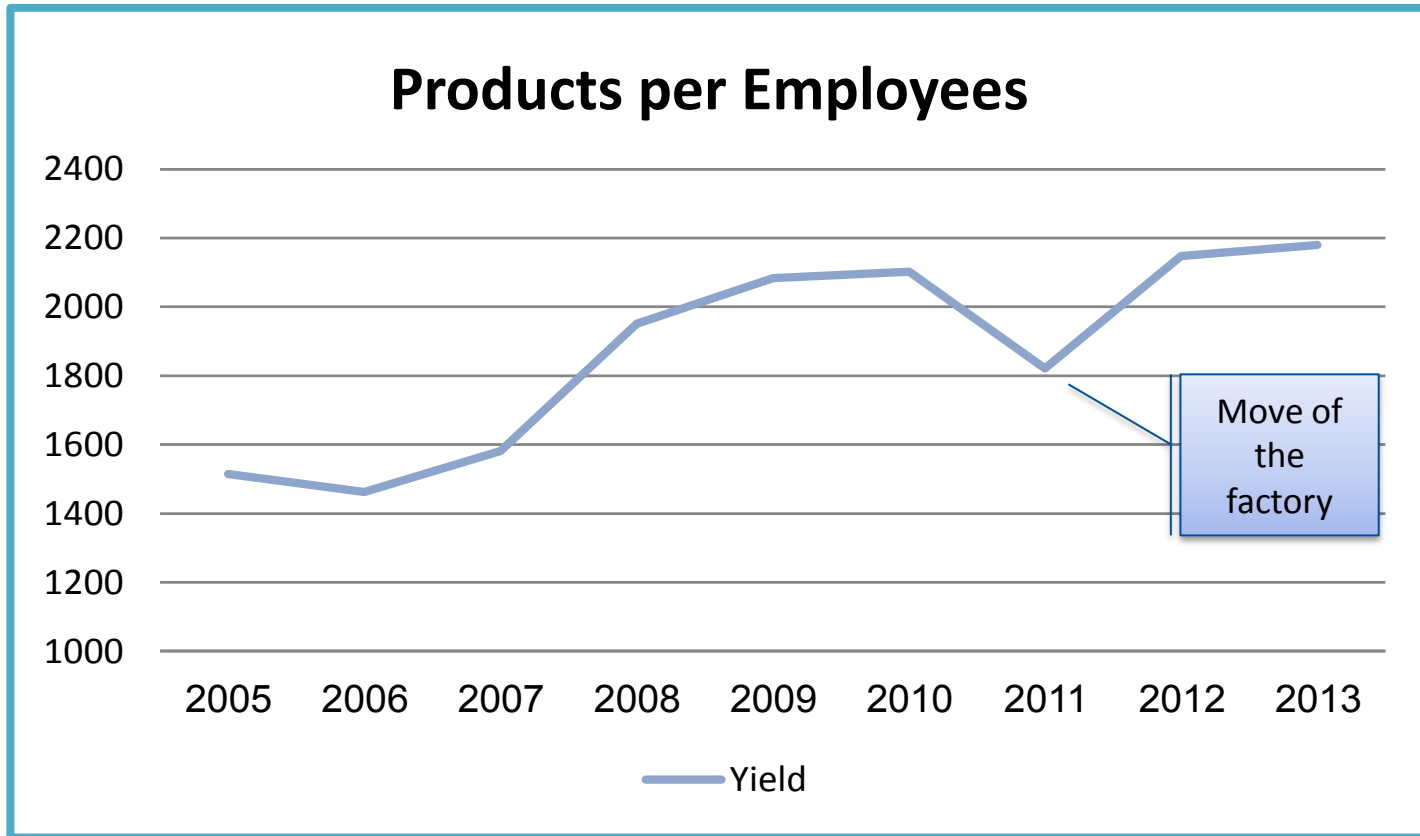


VA/VE example

Type	Annual volume	Result %
MT5/+	75K	-21.6%



Yield (Product / employee)

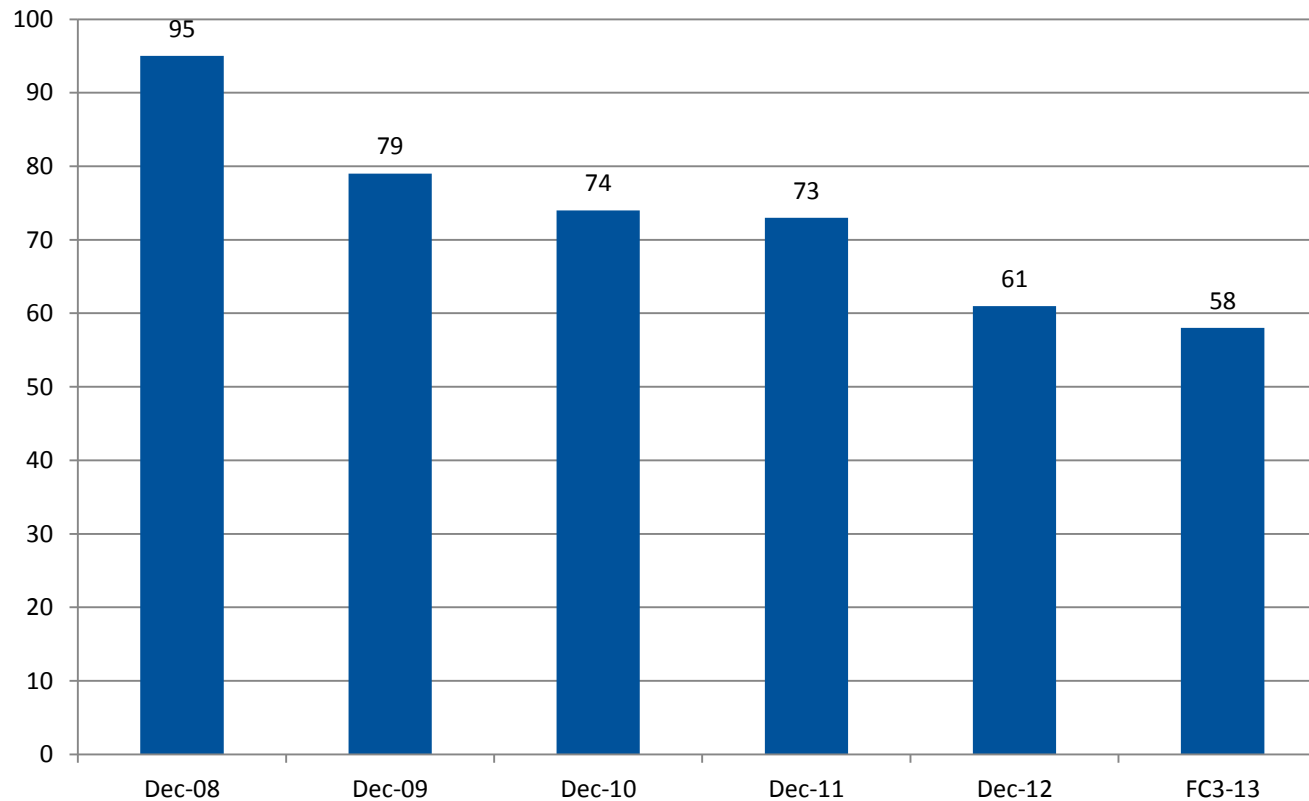


**4-6
Weeks**

4 weeks

3 weeks

Indirect labor development



Ratio of direct labor : indirect labor is 1:4

Key point



- For lean implementation to work you need a lean fanatic to lead it
- Address from the start the setup times as this is the side effect of Make to order
- Move the maintenance to the operators level
- Create a flexible employee structure
- Manage the organizational energy



Thank You

