

# Future Lean Layouts

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## Case Studies

*Each case study is based on actual companies' scenarios, but names, data, and information have been modified to protect confidentially and proprietary agreements.*

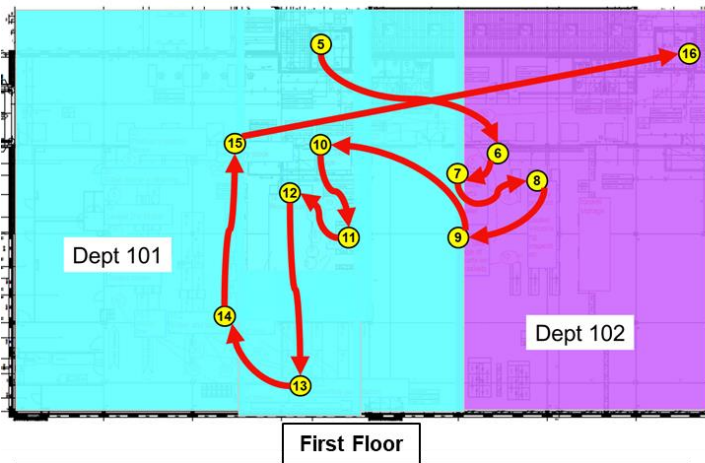
# Case Study 1

## Medical Devices Contract Packaging Company Geneva, Switzerland

Part of C&A Lean Transformation capabilities

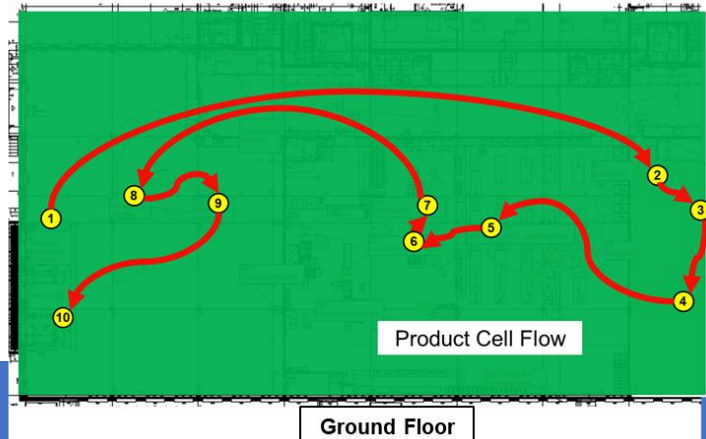
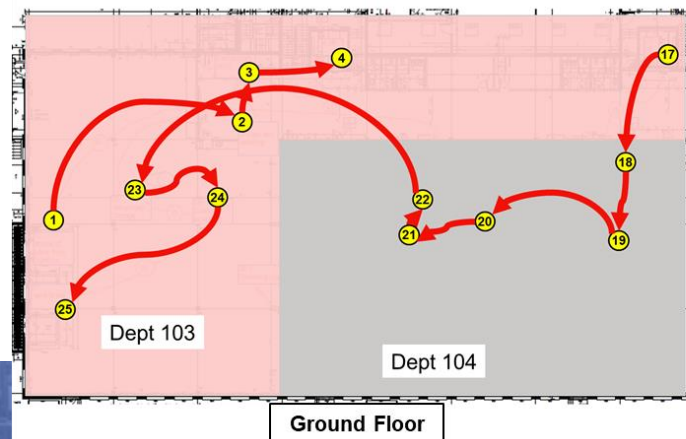
# Medical Devices Contract Packaging Plant Layout Comparison Analysis

Current State 2015



Future layout went from two (2) floors process flow to one (1) floor process flow

Future State 2016



# Medical Devices Contract Packaging Plant Layout Comparison Analysis

	<u>Current State</u>	<u>Lean Future State</u>	<u>Delta</u>	<u>% Improvement</u>
• Total Lead Time	21.1 hours	4.3 hours	16.8 hour	-80% ↑
• Number of Workers*	14	9	5	-36% ↑
• Annual Travel distance	430 meters	240 meters	190 miles	-44% ↑
• No. of Transportation Steps	25	10	15	-60% ↑

*\*The Lean layout eliminated waste and made the job easier, which required fewer workers. Therefore, management must bring in more sales or new business to sustain a continuous improvement culture.*

# Case Study 2

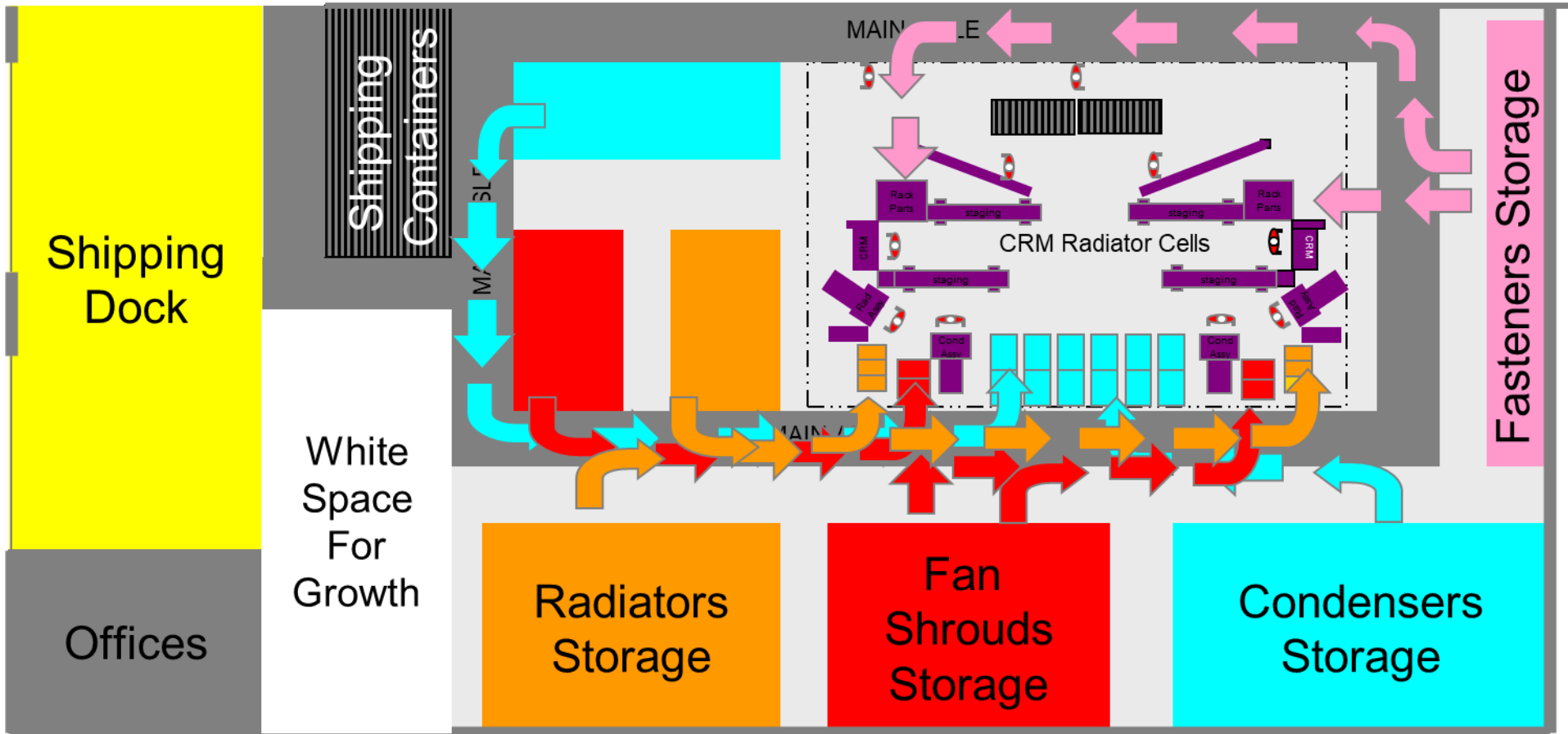
## Automotive Component Parts Company Cincinnati, Ohio

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Part of C&A Lean Transformation capabilities

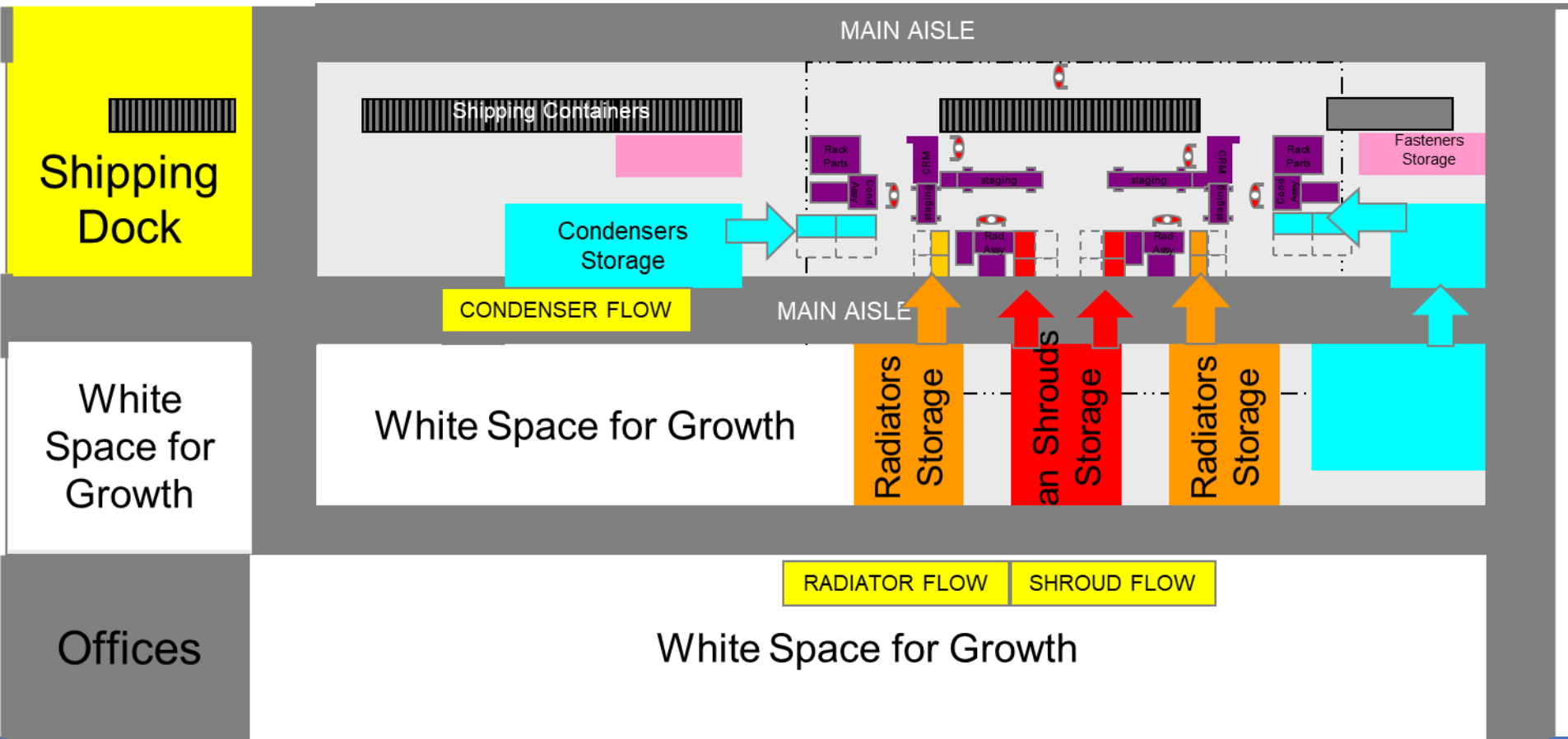
# Automotive Component Parts Company Plant Layout

## Traditional Product Flow



# Automotive Component Parts Company Plant Layout

## Lean Pull Product Flow



•FIFO Inventory Storage System

# Automotive Component Parts Company Plant Layout Comparison Analysis

	<u>Current</u>	<u>Lean</u>	<u>Delta</u>	<u>% Imp</u>
• Number of Operator*	20	7	13	65%
• Floor Space (sq. ft.)	1375	580	795	58%
• Inventory Storage	LIFO	FIFO	+	+
• Material Flow	Poor	Improved	+	+
• Annual Saving =	<b><u>\$432,640/year</u></b>			
• No Cash Investment!				

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# Case Study 3

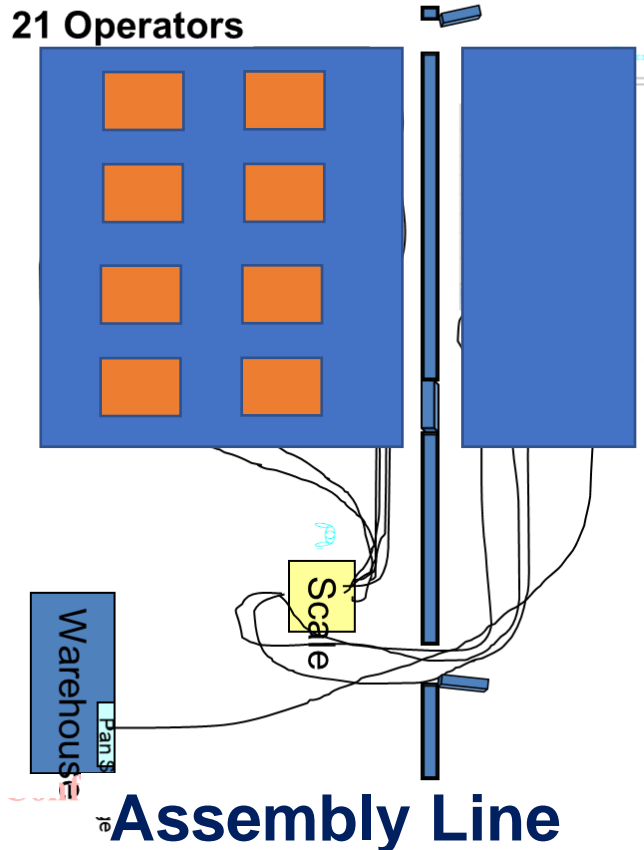
## Medical Device Injection Molded Component Parts Company Phoenix, Arizona

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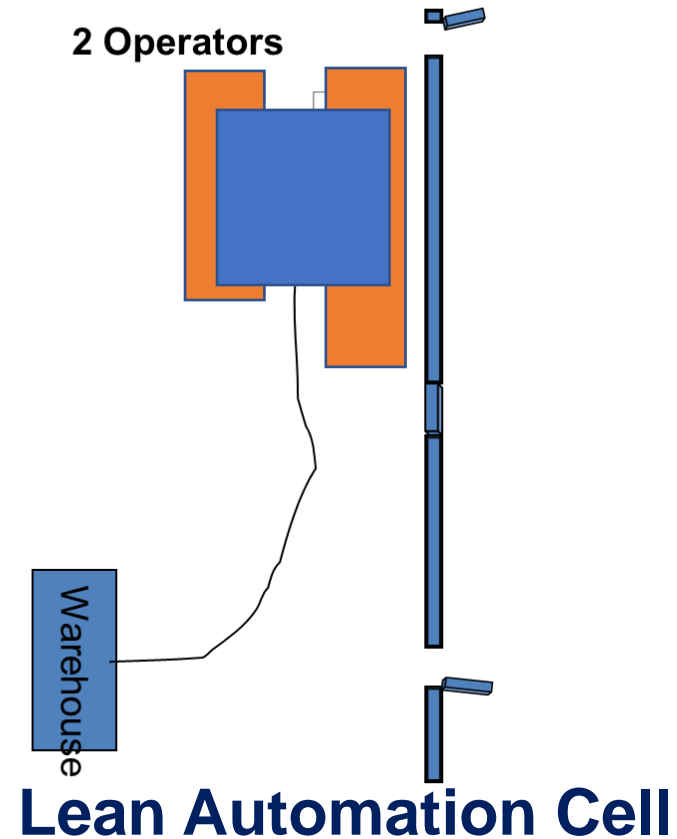
Part of C&A Lean Transformation capabilities

# Medical Devices Injection Molded Component Parts Cell Layout Comparison Analysis

Current State 2009



Future State 2011



# Medical Device Injection Molded Component Parts Cell Layout Comparison Analysis

## Lean Automation Cell - 2011

	<u>Current State</u>	<u>Future State</u>	<u>Delta</u>	<u>% Improvement</u>
• WIP Inventory	20 days	5 days	15 days	-75%↑
• Annual Travel distance	32 miles	2 miles	30 miles	-94%↑
• No. of Transportation Steps	20	2	18	-90%↑
• Number of Operators	18	2	16	-89%↑

## Lean Automatic Cell Annual Savings- \$2.9 million

*\*The Lean automation eliminated waste and made the job easier, which required fewer workers. Therefore, management must bring in more sales or new business to sustain a continuous improvement culture.*



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