

**KPIT**



**Emission  
Solutions**

# Leveraging Oracle E-Business Suite to Achieve Lean Manufacturing

Business Solution : DOAG :09<sup>th</sup> June 2015

Vasu Iyer, Global IT Leader for Cummins Emission Solutions

Prashant Kulkarni, Cummins Engagement Manager, KPIT Europe



# Agenda

- Company Overview
- Project Overview
- Business Challenges
- Lean and Value Chain Challenges
- Project Results
- Appendix











Cummins Emission Solutions

# COMPANY OVERVIEW

Cummins is a \$19Bn global power leader, world's largest independent manufacturer of diesel engines.



	Products / Services	Revenue Contribution	Primary Customers
	 <p>Diesel &amp; Natural Gas Engines</p> <ul style="list-style-type: none"> <li>▪ Heavy-Duty Truck</li> <li>▪ Medium-Duty Truck &amp; Bus</li> <li>▪ Light-Duty Automotive &amp; RV</li> <li>▪ Industrial Applications</li> </ul>	50%	<ul style="list-style-type: none"> <li>▪ Automotive sector</li> </ul>
	 <p>Power Generation Systems</p> <ul style="list-style-type: none"> <li>▪ Components &amp; Services</li> <li>▪ Distributed Power Generation</li> <li>▪ Auxiliary power in mobile apps</li> </ul>	15%	<ul style="list-style-type: none"> <li>▪ Office Buildings</li> <li>▪ Data Centers</li> <li>▪ Hospitals</li> <li>▪ Factories</li> <li>▪ Utilities &amp; Telecom</li> <li>▪ RVs &amp; Boats</li> <li>▪ Homes</li> </ul>
	 <ul style="list-style-type: none"> <li>▪ Filtration Components</li> <li>▪ Turbo Chargers</li> <li>▪ Fuel Systems</li> <li>▪ Emission after-treatment systems</li> </ul>	19%	<ul style="list-style-type: none"> <li>▪ Truck and Engines</li> </ul>
	 <ul style="list-style-type: none"> <li>▪ Parts and Services</li> <li>▪ Maintenance contracts</li> <li>▪ Engineering services</li> <li>▪ Product Customization</li> </ul>	16%	



# Emission Solutions Business Overview



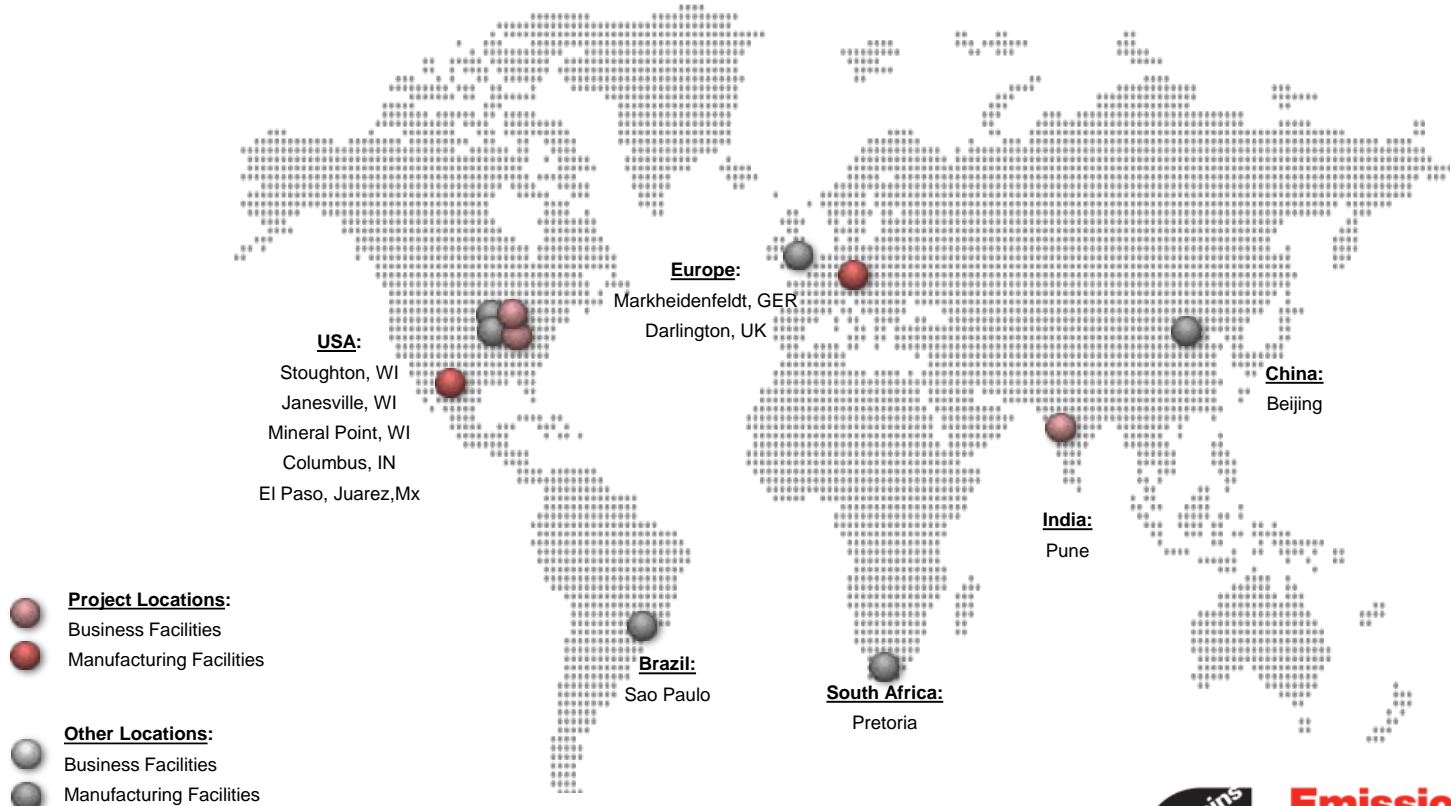
- Emission Solutions was founded in 2002 to consolidate
  - After treatment research
  - Product Development
  - Materials Procurement
  - Manufacturing



- What we do
  - CES can help any engine manufacturer develop and integrate an entire emissions program and provide an optimized after-treatment system to meet their unique engine and vehicle requirements – from concept to production.



# Emissions Solutions Locations



Cummins Emission Solutions

# **PROJECT OVERVIEW**

# Background

- Cummins Emissions Solutions (CES) had acquired heavy duty emissions control business from Hilite International in Marktheidenfeld, Germany in May 2012.
- This acquisition enabled CES to meet the needs of current customers and grow into new markets adopting tougher emission standards
- Hilite International operated on QAD MFG/PRO (Version 2005)
- To align the newly acquired operation with the rest of Cummins, KPIT was selected to help implement Oracle Applications Release 12.1.3 in a new instance.
- To extend CMHF best practices, governance model, standard business process and solution foot print to new geographies

*Cummins Marktheidenfeld (CMHF) Division of CES was formed*



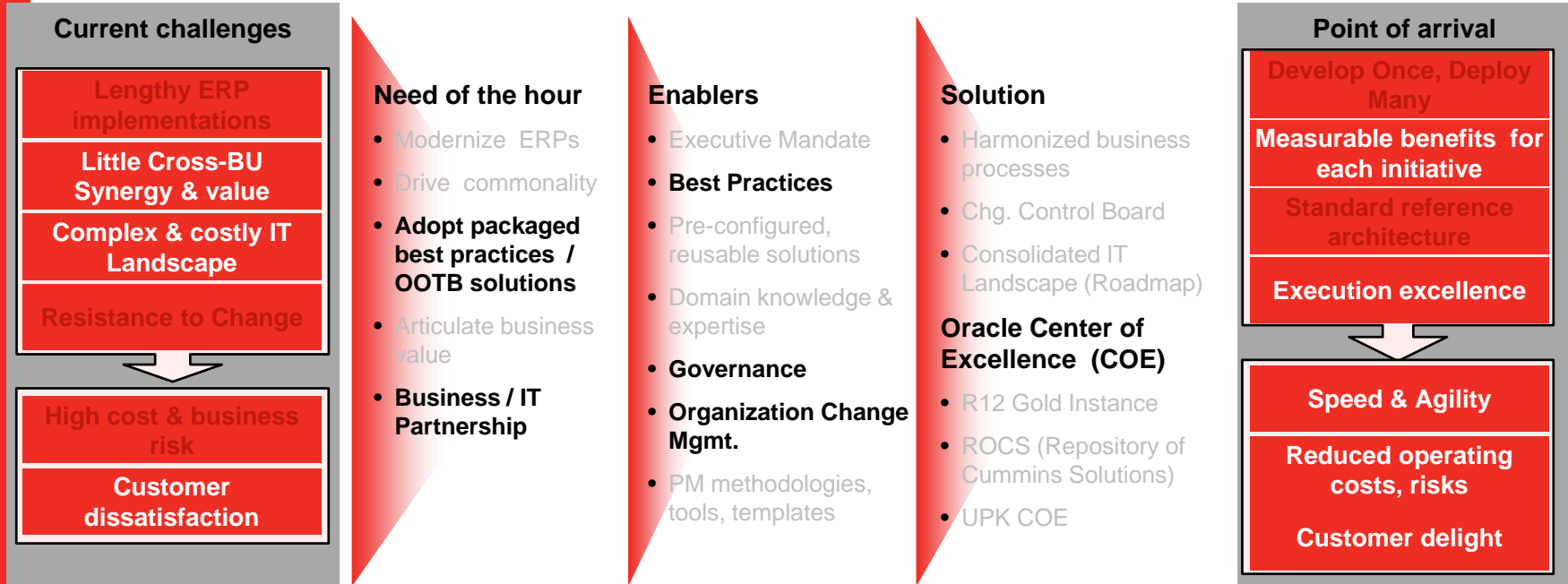


# Strategic Objectives

- Transition to Cummins Oracle ERP Platform to help the CMHF business:
  - Improve Supply Chain Planning and Execution
  - Improve Operational Efficiency
  - Improve Material Control
  - Improve On Time Delivery Performance
- Priorities: (1) Quality, (2) Cost, (3) Schedule
- Migrating practices, culture, systems to Cummins. Eliminate TSA cost

*Project planning focused on defining quality, assessing cost, and determining the schedule.*

# IT Strategy for becoming more lean...



*IT function was pro-active and ready to deliver excellence through the life cycle of the project*

# Application Scope

## Manufacturing

- Inventory
- Bills of Material
- Cost Management
- Engineering
- Work In Process
- Quality

## Distribution

- Order Management
- Shipping
- Purchasing
- EDI / RLM

## Planning

- MRP
- Supplier Scheduling

## Other

- UPK
- Appworx

## Financials

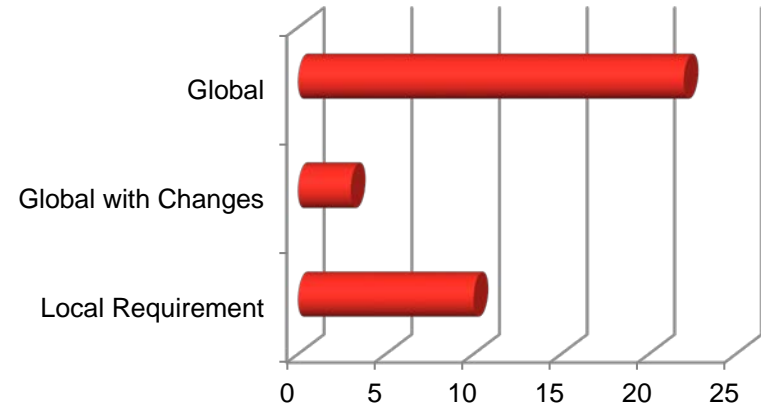
- Accounts Payable
- Accounts Receivable
- General Ledger

# IT Results

## Business Flows Implemented

UPK Flows	German	English
MFG	51	51
PO	28	28
EDI-RLM	27	27
OM	22	22
FIN	8	8
Planning	7	7
<b>TOTALS</b>	<b>143</b>	<b>143</b>

## CEMLI Count

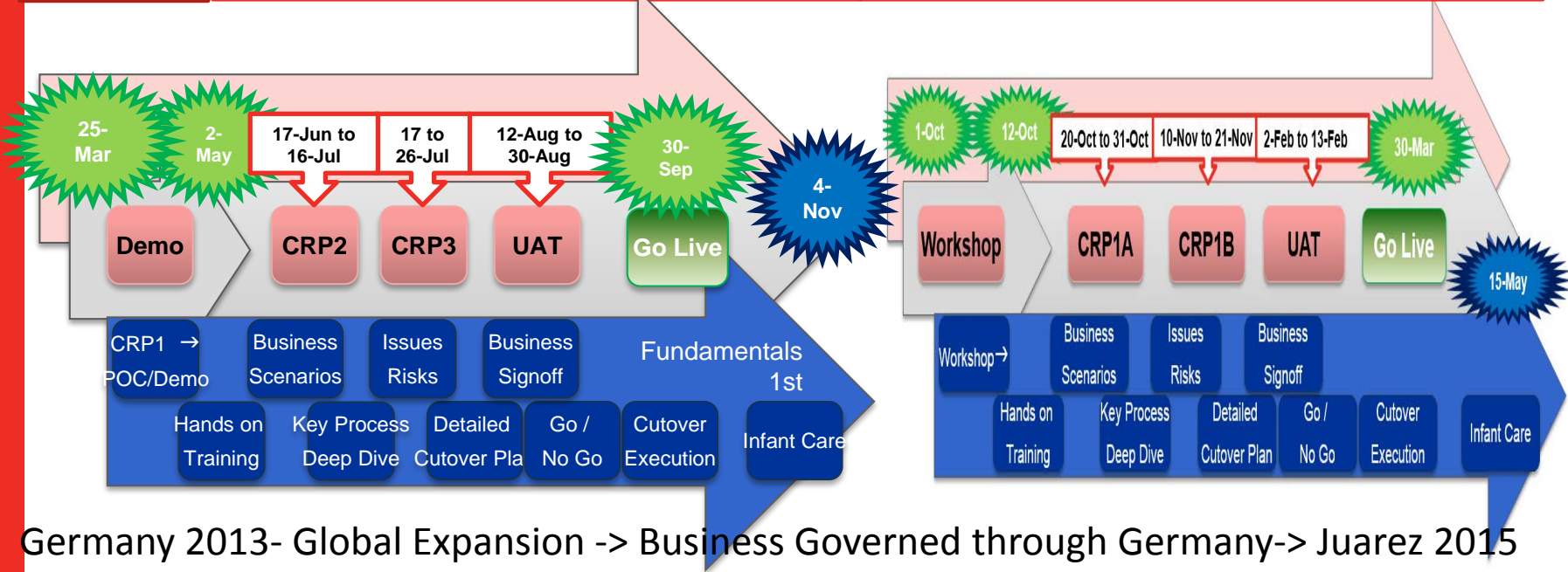


## Data Objects Converted

- Items
- BOMS
- Routings
- Stock Locators
- Customers
- Customer Item Cross-References
- Price Lists
- Sales Orders
- Work Orders
- Suppliers
- Purchase Orders
- AR Open Items
- AP Open Items
- GL Balances

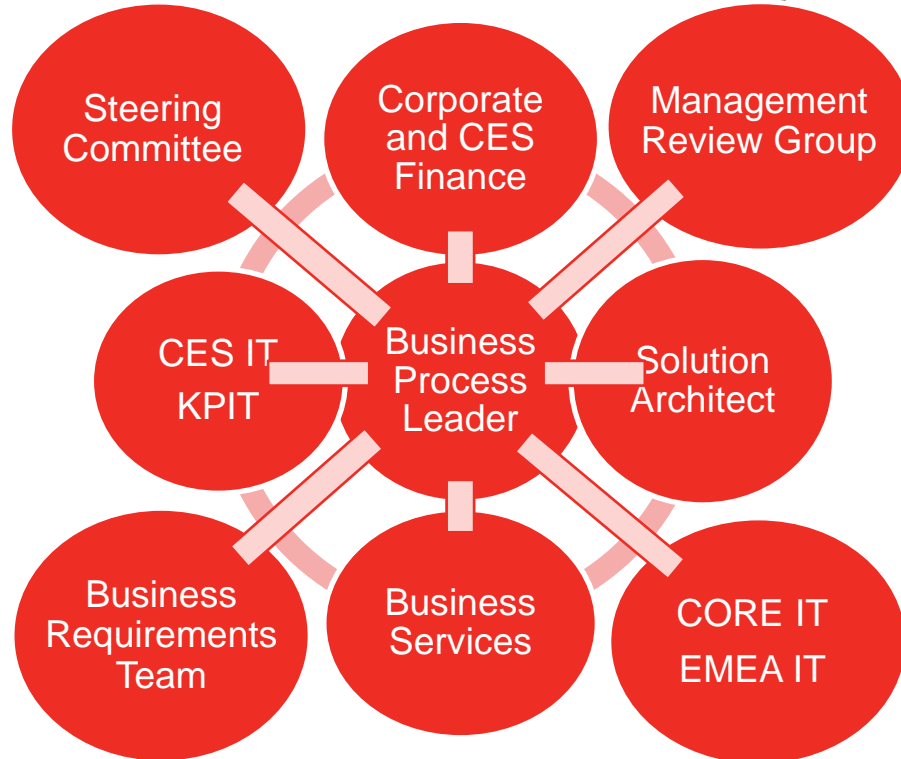
# Implementation Timeline

**Scope** Implement Vanilla R12 eBusiness Suite at the Cummins Marktheidenfeld site  
 Extend Cummins Marktheidenfeld Operating system (COS) to Cummins Juarez



- Germany 2013- Global Expansion -> Business Governed through Germany-> Juarez 2015  
*With a short timeline, precision planning and collaboration was key*

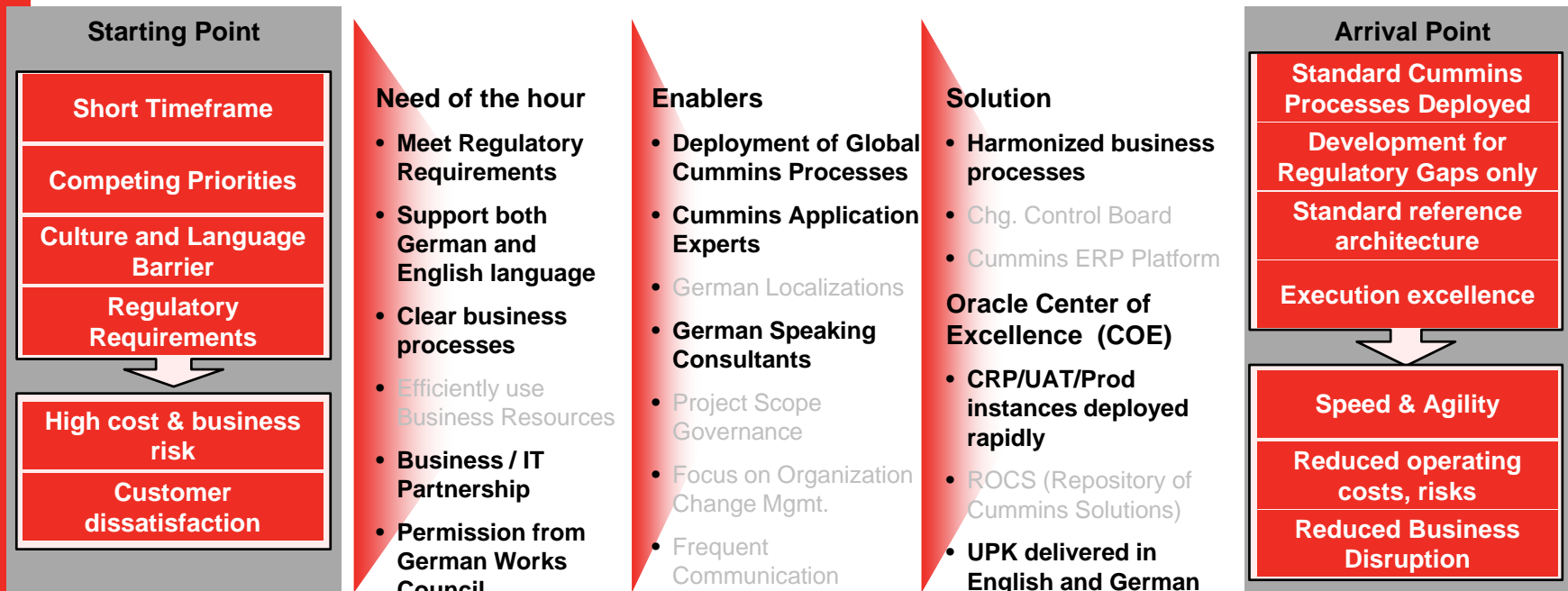
# Project Governance and Leadership



*Stakeholder management is key throughout project life cycle*

# BUSINESS CHALLENGES

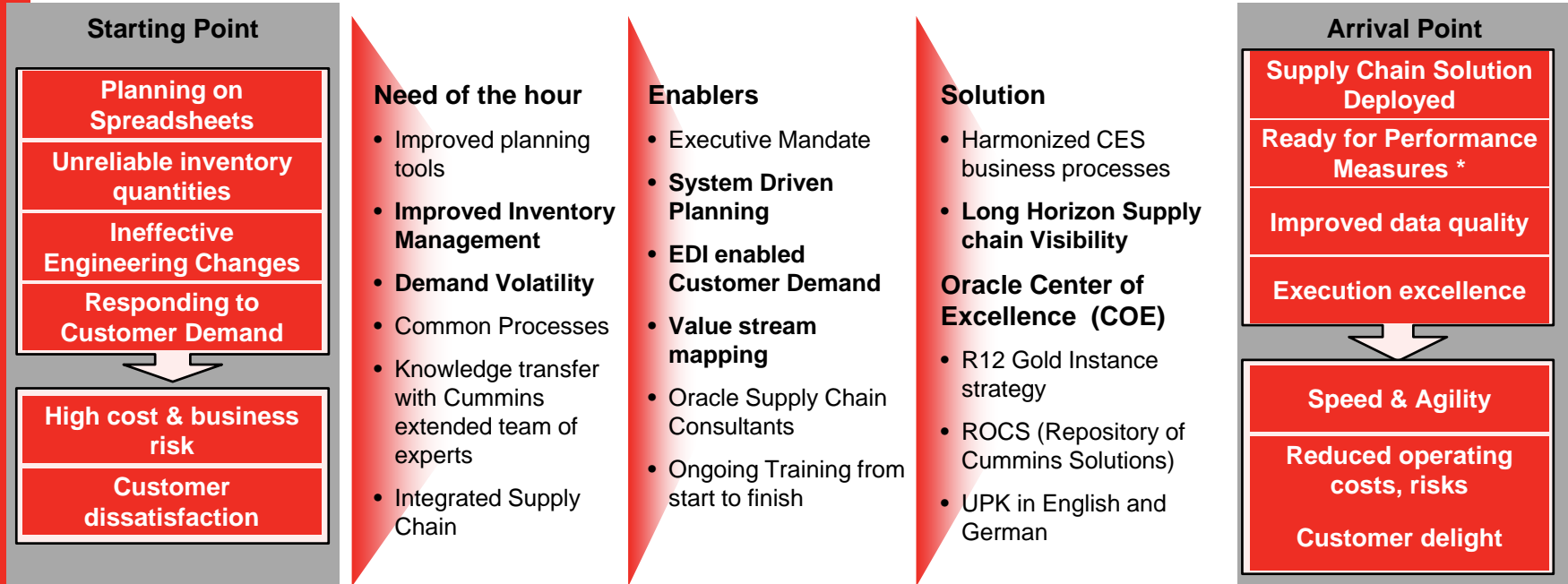
# Business Challenges





# LEAN AND VALUE CHAIN CHALLENGES

# Lean and Value Chain Challenges



\* - Implementing Cummins BI Solution is next phase

# PROJECT RESULTS

# Summary

- *No disruption to business during transition*
- *Super users trained and accountable for use and change management*
- *All Customers and 15 Suppliers integrated using EDI*
- *Order fill rates maintained through transition*
- *Cutover and year end physical inventories completed*
- *Month End / Year End Close completed on time*
- *Visibility into Supply Chain achieved*
- *Single source of truth for supply and demand*
- *TSA terminated*
- *Team recognized for successful implementation*

# Business Benefits

- Business processes integrated and aligned with global regions
- CMHF can reference single view of data and duplication eliminated
- Cummins Marktheidenfeld Operating system (COS) extended to Cummins Juarez
- Standard business reporting for operations and financials
- Standard global support process for questions, training, issues and challenges
- EDI set up between customers and suppliers eliminating excel and email
- Operational issues resolved by faster review of data and reports from Oracle
- Support and maintenance spend at a global level

# QUESTIONS?

**We were able to successfully execute a month-end close this week in Marktheidenfeld using the new Oracle system. This is a MAJOR milestone for the site. I want to congratulate the entire CMHF team on the outstanding accomplishment. As with any system change, there are opportunities for improvement...but the end result was a set of accurate financial statements and the effort was "no small task" given the tight timeline (one month) and the limited resources.**

"I would like to mention that based on all of the careful planning and testing over the past several months, this week has been highly successful. This would not have been possible if it were not for the dedication of the project team (CES, CFS, and KPIT) and I appreciate all of that effort."

*I think the Oracle move went very well.. I am very happy with the support*

We are an organization that values the importance of quality in its processes and their execution, to ensure efficiency but also to ensure accuracy and consistency, and compliance. As part of that, we mitigate risk. We did an excellent job of this at every stage of the project, quickly and efficiently.

## Prashant Kulkarni

- 16+ years of Manufacturing ,Supply-Chain & Strategy consulting experience
- Deep expertise in manufacturing and forecasting & order management domain
- Extensive experience in Discrete , Process and Project manufacturing, configure to order scenario.
- Aligned Manufacturing Execution Systems with ERP as per Manufacturing philosophy



- ✓ CPIM Certified from APICS
- ✓ Has been Part of consulting team leveraging IT for Business value
- ✓ Led multiple end to end EBS Implementations
- ✓ Result oriented in manufacturing- Lean manufacturing, Value Stream Mapping, Job Shop Production.