



# Introduction to VM – Strategy / M&A and Performance Management

## SELECTED TOOLS

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# The highest potential for optimization can be found in processes and leadership in five different areas of work

## Performance Management – Key Areas



### 1. Product / Market Strategy

- Identification of the most innovative and sophisticated products
- Optimizing development cycles
- Embodiment of Product-Lifecycle with PLM



### 2. Revenue Enhancement

- Focusing on growth and growth strategy
- Increase efficiency of sales organization and CRM
- Multi-project management, network competence improvement



### 3. Organizational Effectiveness

- Restructuring of the organization, direct / indirect areas
- Operational and organizational optimization
- Management Operating System & Performance Management



### 4. Process Excellence

- Reduction of the costs of production, warranties and ex gratia payments
- Total costs of quality / Robust design (Time to quality) / Six Sigma
- Value Chain Excellence



### 5. Supply Chain Management

- Suppliers: Selection, Evaluation, Development, Controlling
- Total costs of ownership, Supply Chain Management
- Cost (in- / outbound) and controlling of logistics, Inventory Management

# The TOP 20 steel producers play a key role - Global footprint (production/sales) benchmarking needs to be evaluated

## 1. Product Market Strategy – Case Study

### Key Figures



1	ArcelorMittal	6	Wuhan Group	11	Shandong Group, Tata Steel	16	Hyundai Steel
2	Nippon Steel & Sumitomo Metal Corporation	7	Shagang Group	12	U. S. Steel	17	RIVA Group
3	Hebei Group (HBIS)	8	Shougang Group	13	Nucor	18	Evrz Group
4	Baosteel Group	9	JFE	14	Gerdau	19	Severstal, ThyssenKrupp, Benxi Steel
5	POSCO	10	Ansteel Group	15	Maanshan	20	NLMK

	Volume 2012 [Million t]	Revenue 2012 [USD Mrd.]	CI percentage**
1	93.6	84.9	n.a.
2	47.9	50.1	n.a.
3	42.8	18.3	n.a.
4	42.7	46.3	n.a.
5	39.9	57.0	n.a.
6	36.4	14.5	n.a.
7	32.3	25.5	n.a.
8	31.4	36.1	n.a.
9	30.4	27.8*	n.a.
10	30.2	27.1	n.a.
11	23.0	11.6	n.a.
11	23.0	25.0	n.a.
12	21.4	19.3	n.a.
13	20.1	19.4	n.a.
14	19.8	19.2	n.a.
15	17.3	11.8	n.a.
16	17.1	12.7	n.a.
17	16.0	n.a.	n.a.
18	15.9	14.8	n.a.
19	15.1	14.1	n.a.
19	15.1	50.8	n.a.
19	15.1	8.2	n.a.
20	14.9	12.2	n.a.

Confidential

\*\*The CI – Client Industry: percentage of competitors in the relevant markets for the client that are considered in the benchmarking (Assumption: Information is given)

Source: „Top Steel-Producing Companies 2012 “- World Steel Association, H&P Research (M&A are being considered)

\* Numbers from 2009

# Therefore benchmarking needs to consider the differences in each CI, region and product

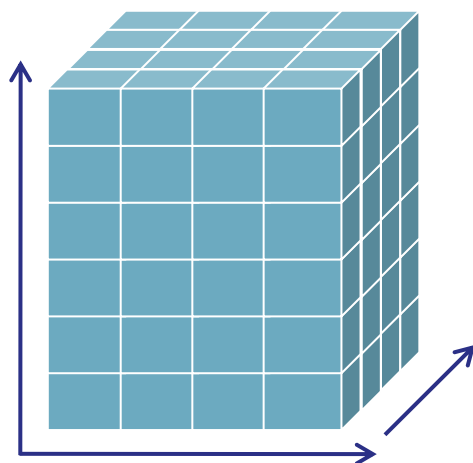


## 1. Product Market Strategy – Case Study

### Possible sales structuring

#### Client Industry

- Automotive
- Truck
- Construction
- Energy
- Packaging
- Household



#### Regions

- Europe
- North America
- Middle-/South America
- Middle East
- Rest of Asia
- Africa

#### Products

- Hot-rolled Strip
- Steel Sheet
- Organic Coating
- Tin-/Blackplate
- Medium-wide Strip
- Others/Services

### Explanations:

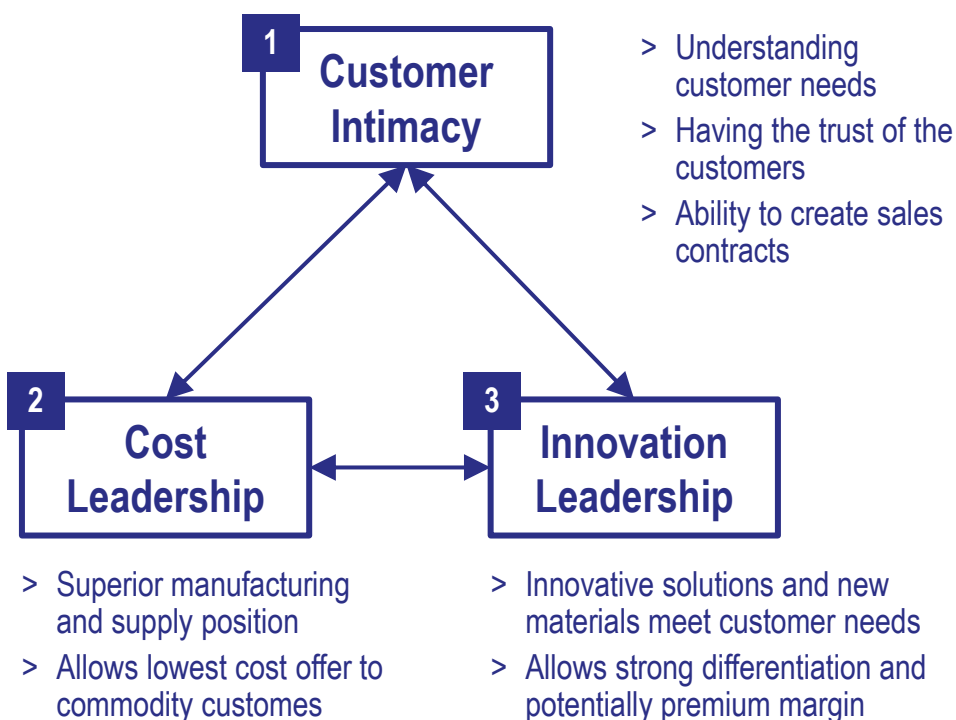
- The sales structure can be different for each CI, region and product
- Steel manufacturer can be competitors e.g. in Asia for TK Steel, but not in Europe
- Reasons for this can be.:
  - Lack of local production site or sales-/ service department (no footprint)
  - Regional differences in client structure and therefore the requirements (fragmented vs. concentrated)
  - Limited access to markets (e.g. can only be penetrated with direct sales and not through agents and vice versa)

# Looking at sources of market leadership cross-checked with EXAMPLE-CLIENT starting position – customer intimacy offers a path forward



## 1. Product Market Strategy – Case Study

### 2 Case Study – Sources of market leadership



## EXAMPLECLIENT O&G OFFSHORE

Chances  
for  
Leadership

- 1**
- > Players in the O&G offshore chain are very demanding and looking for trusted partners
  - > EXAMPLECLIENT managed to establish a trusted partner position for own product and particularly as a packaging partner
  - > Potential to leverage strong pipeline positions
- 2**
- > Except for the UK the cost is a real issue particularly also looking at the logistics cost to play in Asia and North America
- 3**
- > EXAMPLECLIENT is clearly behind the leaders in many products and specialized steel qualities
  - > At the moment it is not considered a preferred partner by the leading customers (IOCs, NOCs) and only to a limited degree for the EPCs and fabricators



# The offshore O&G steel study will commence with detailed project plan – Definition of priorities for the demand and supply studies



## 1. Product Market Strategy – Case Study

### PROJECT PLAN

#### 0 Project plan

- > Check for energy, oil & gas and offshore based on existing papers, reports and analysis'
- > Market segments / customers and assumed growth drivers
- > Current Competitors
- > Estimate targets, timeline and resources
- > Information gathering

### OFFSHORE O&G STEEL MARKET STUDY

#### 1 DEMAND STUDY

- > Fixed platforms
- > Floating platforms
- > Subsea structures

#### 2 SUPPLY STUDY

- > Competitive overview
- > Steel supply in fixed, floating and subsea
- > Supply chain (steel, fabricator, EPS, IOC)

#### 3 CONCLUSIONS AND RECOMMENDATIONS

# Finally, the study will lead to appropriate recommendations for ArcelorMittal to approach this segment in the right way



## 1. Product Market Strategy – Case Study

### 3 Conclusions / Recommendations

- Alignment workshop with EXAMPLECLIENT on final conclusions
- Identify and assess recommendations incl. strength, weaknesses, threats and opportunities for EXAMPLECLIENT in the O&G offshore steel segment

### Deliverables

- Review and align on outcome of the study
- Detailed SWOT analysis of all key players, incl. EXAMPLECLIENT
- Define final conclusions and recommendations for EXAMPLECLIENT in the O&G offshore segment
- Opportunities to invest in different markets and products

### VM Contribution

- Senior experiences and skills from comparable projects
- Input from comparable market analysis and implementation projects
- Workshops and other appropriate tools



# The market for offshore steel shows a promising CAGR from 2012 to 2017 of 9% - Main driver is the increasing demand for floaters

## 1. Product Market Strategy – Case Study

### 1 Case Study – Global steel demand assessment from offshore, 2012-2017 [tons, '000]<sup>1)</sup>

	2012					2017					CAGR 2012-2017							
	Plate	Pipe	Section	Wire	Other	Total	Plate	Pipe	Section	Wire	Other	Total	Plate	Pipe	Section	Wire	Other	Total
Fixed	1.011	978	240	18	63	2.311	1.270	1.241	302	23	79	2.915	5%	5%	5%	4%	5%	5%
FPSO	164	21	70	6	-	261	414	55	176	15	-	661	20%	21%	20%	21%	-	20%
Other floaters <sup>2)</sup>	115	15	49	4	-	183	251	33	100	11	-	395	17%	17%	15%	21%	-	17%
Interm. SUM	1.290	1.014	360	28	63	2.755	1.935	1.330	578	49	79	3.971	8%	6%	10%	12%	5%	8%
SEMI-SUB	21	3	6	1	-	32	63	9	19	4	-	95	25%	25%	25%	25%	-	25%
TLP	-	-	-	-	-	-	76	6	19	1	36	138	-	-	-	-	-	-
<b>TOTAL</b>	<b>1.311</b>	<b>1.017</b>	<b>366</b>	<b>29</b>	<b>63</b>	<b>2.787</b>	<b>2.075</b>	<b>1.344</b>	<b>616</b>	<b>54</b>	<b>115</b>	<b>4.204</b>	<b>10%</b>	<b>6%</b>	<b>11%</b>	<b>13%</b>	<b>13%</b>	<b>9%</b>

- > The total CAGR is 9%
- > Fixed platforms account for more than 80% of the global market – However, the expected market growth is mainly driven by floating platforms
- > Plates represent half of the market and grow fast with a CAGR of 10%
- > Pipes and Sections are basically the other half of the market with growth rates of 6% and 11% respectively
- > Floating platforms grow strongly incl. conversions, new built not addressable for EXAMPLECLIENT

- > Current product offering and sales capabilities can target standard buyers with an interest in packaging
- > This results in an **addressable market for EXAMPLECLIENT of ca. 1.4 M tons and resulting market share of around 7%**, i.e. Europe (0.3), ME (0.3), SE-Asia (0.8)
- > In the mid-term it is most interesting to target EUR / NA with innovative products and also Local Content country like Brazil who have strong demand
- > SE Asia can only be strong with low cost products

1) All global regions included, Semi-Sub does not include moorings and piles. Further assumptions have been made

2) Other platform includes steel demand from platforms for which a clear type identification was not possible



# Key assumptions have been taken for the different platform types



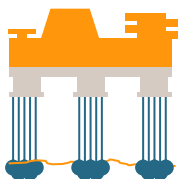
## 1. Product Market Strategy – Case Study

### PLATFORM TYPES

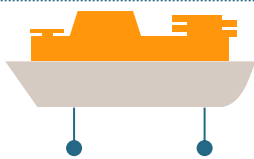
### KEY ASSUMPTIONS



- Fixed**
- A. The weight of piles has been assumed to be 25% of the jacket weight
  - B. The steel share of topside has been assumed to be 60% of total topside weight and that it excludes "indirect steel"
  - C. Jackets and moorings have been assumed to be 100% steel made
  - D. Risers have been excluded from this analysis



- TLP**
- A. The weight of piles has been assumed to be 25% of the tendons weight
  - B. Where the weight of tendons was not available, an average weight of 9 tons per meter has been assumed
  - C. The steel share of hulls has been assumed to be 90% of total hull weight. Indirect steel not considered
  - D. The steel share of topsides has been assumed to be 60% of total topside weight
  - E. Tendons Piles have been assumed to be 100% steel made
  - F. Risers have been excluded from this analysis



- FPSO**
- A. The steel share of top side has been assumed to be 50% of total topside weight. "Indirect steel" not considered
  - B. The steel share of hulls has been assumed to be 90% of total hull weight
  - C. Moorings piles are risers have been excluded from this analysis
  - D. Conversion: 30% of total hull steel consumption assumed



- SEMI**
- A. Weight of moorings & piles not considered
  - B. The steel share of topsides has been assumed to be 60% of total topside weight. "Indirect steel" not considered
  - C. The steel share of hulls has been assumed to be 90% of total hull weight
  - D. Moorings & piles have been assumed to be 100% steel made
  - F. Risers have been excluded from this analysis

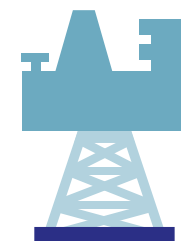
# The amount of steel utilized in fixed platforms ranges between 1.000 and 40.000 tons – Plate major steel form used



## 1. Product Market Strategy – Case Study

### 1 Case Study – Fixed platform – Steel volumes by component<sup>1)</sup> and by form<sup>2)</sup>

Water depth [m]	10-50	51-100	101-180	Steel by Form				
Total steel weight [t]	1,000-6,000	5,000-20,000	10,000-40,000	Plate	Pipe	Wire	Section	Other
Topside steel weight [t]	500-1,500	1,000-9,000	2,000-15,000	68%	10%	2%	15%	5%
Jacket steel weight [t]	400-3,500	3,000-8,000	6,000-19,000	5%	85%	0%	10%	0%
Piles steel weights [t]	100-1,000	1,000-3,000	2,000-6,000	95%	0%	0%	0%	5%



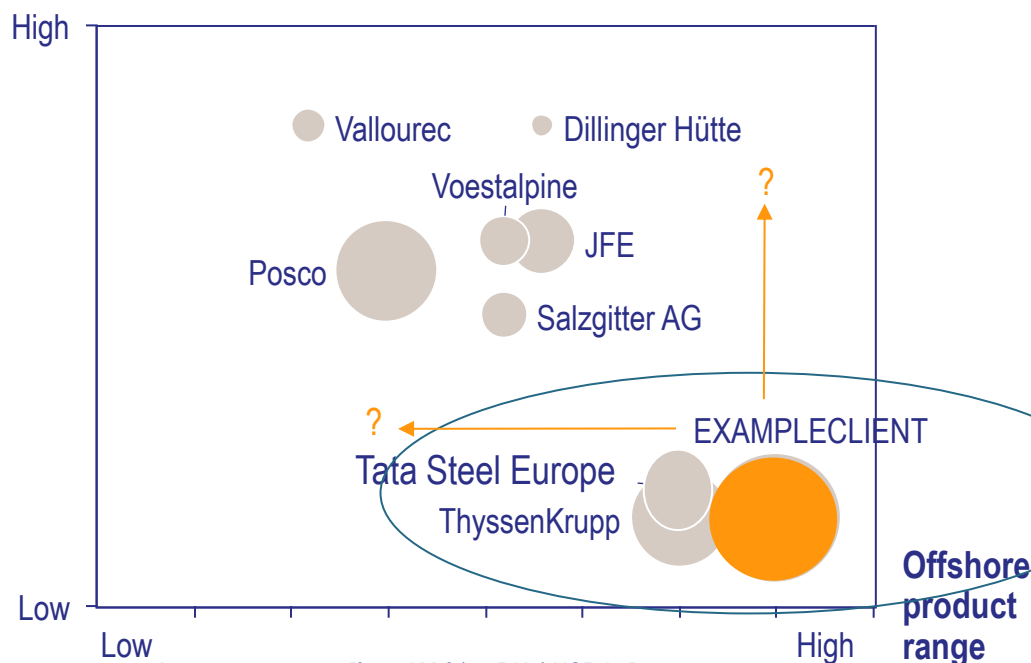
- 1) Assumptions: A. The weight of piles has been assumed to be 25% of the jacket weight  
 B. The steel share of topside has been assumed to be 60% of total topside weight and that it excludes "indirect steel"  
 C. Jackets and moorings have been assumed to be 100% steel made  
 D. Risers have been excluded from this analysis
- 2) Assumptions on steel by form: assessed average of selected market interview results with steel producers (e.g. Dillinger Hütte, Voestalpine, ArcelorMittal), distributors (e.g. ThyssenKrupp Mannex, ArcelorMittal Projects) and fabricators (e.g. Fincantieri)

# Smaller, more flexible European players are successfully producing for the offshore industry, while the focus of large ones is on packaging

## 1. Product Market Strategy – Case Study

## 2 Case Study – Competitive assessment of selected Players

### Technical leadership



### COMMENTS

- > Given the different strategies of the European steel mills, there is no "blue print" for success
- > The smaller players like Voestalpine, Dillinger Hütte are technical, innovation leaders – not so Valourec and Salzgitter
- > These smaller players are also selling through the trading activities of ThyssenKrupp, ArcelorMittal and Tata Steel who have chosen to offer a broad range of distribution and partly engineering services for offshore clients
- > EXAMPLECLIENT seem in a middle position while Far East competitors like JFE and Posco have grown strongly in this segment during last years

# EXAMPLECLIENT's offshore business model a one-stop-shop packaging business with ca. 15% share of EXAMPLECLIENT plate, pipe and section



## 1. Product Market Strategy – Case Study

### 3 Case Study – Results of internal analysis

#### Preliminary CONCLUSIONS

- > Total sales decreased by around 40% within the last year, mainly due to fewer 3<sup>rd</sup> party products - sales of own products remained stable
- > EXAMPLECLIENT plate, pipe and section are being offered in a "middle" quality range. The cost positions for plates needs to be addressed to improve competitiveness
- > In the "high-end" grades competition e.g. from Germany, Japan and South Korea is ahead, while at the "low end" e.g. Chinese competitors are more competitive
- > Five biggest clients make up around 50% of sales
- > Within the last year, sales focus has changed (UK office took over clients from Middle East)

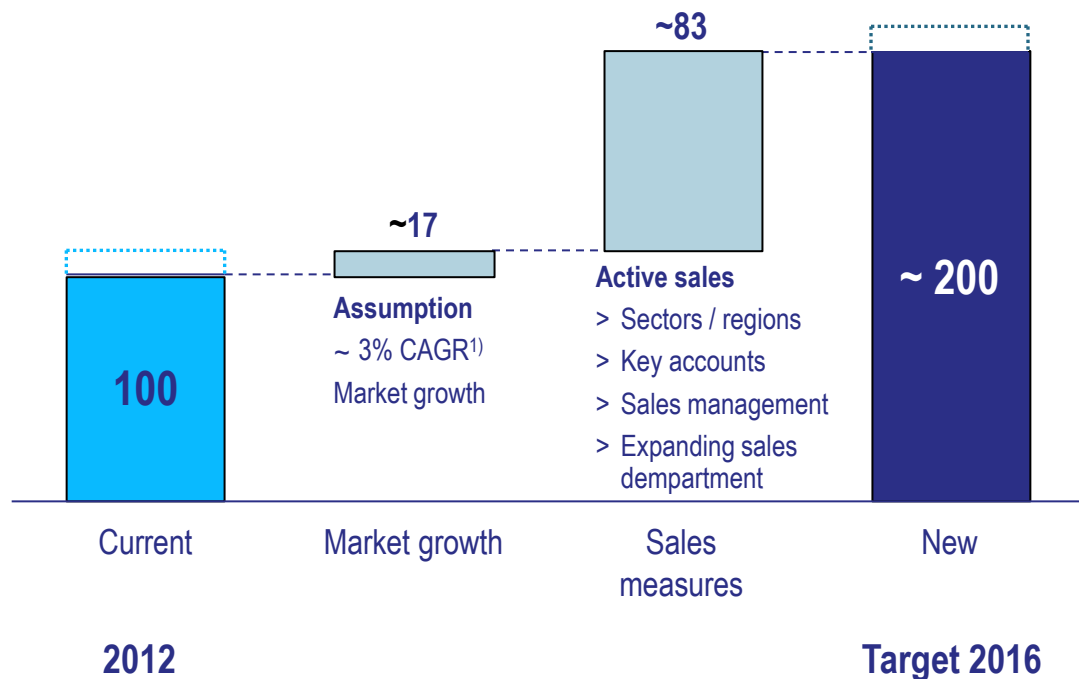
#### Preliminary RECOMMENDATIONS

- > Clear strategy definition needed => focused packager vs. product supplier
- > It seems that warehousing for certain fabricators and EPC contractors in Asia is key
- > Analysis of cost improvement potential at European plate production necessary to push own products
- > Develop consensus that Cost- or Product Leadership should not be targeted. Instead, target selected customers with the packaging model. EXAMPLECLIENT should strengthen its position to become a leader in client intimacy.
- > Development of sustainable key account management incl. definition of key accounts per client group in IOC/NOC's, EPC's and fabricators and expansion of key account team recommended

# The original target 2012 was revised in 2016 due to 10% of Budget shortfall

## 2. Revenue Enhancement – Case Study

Business Plan in EUR mn

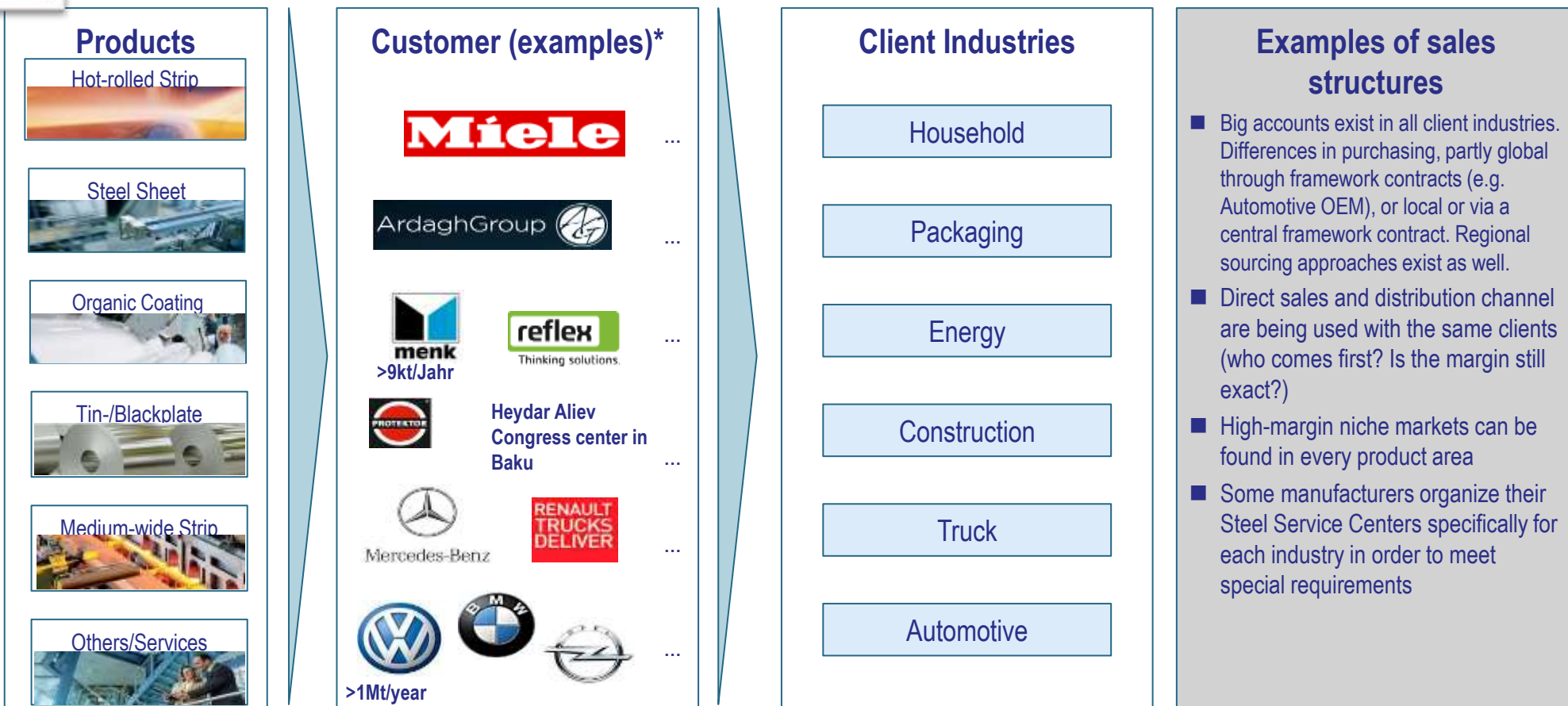


### Comments

- Recording to a market model and expert analysis the market grows at 3% CAGR by 2016
- In this case, EUR 17 mn additional sales in 2016 would be achieved without active measures
- The remaining approximately 83 mn EUR turnover are accessible only by active measures with systematic implementation
- As a new focus sectors in 2013 first railway technology and wind energy have been identified, other sectors should follow in 2014
- As a focus area in 2013 D was identified with gradual expansion to A, CH, Western Europe and Eastern Europe
- Other sectors and regions are tracked opportunistically

# The sales structures of the key products and client industries show significant differences

## 2. Revenue Enhancement – Case Study

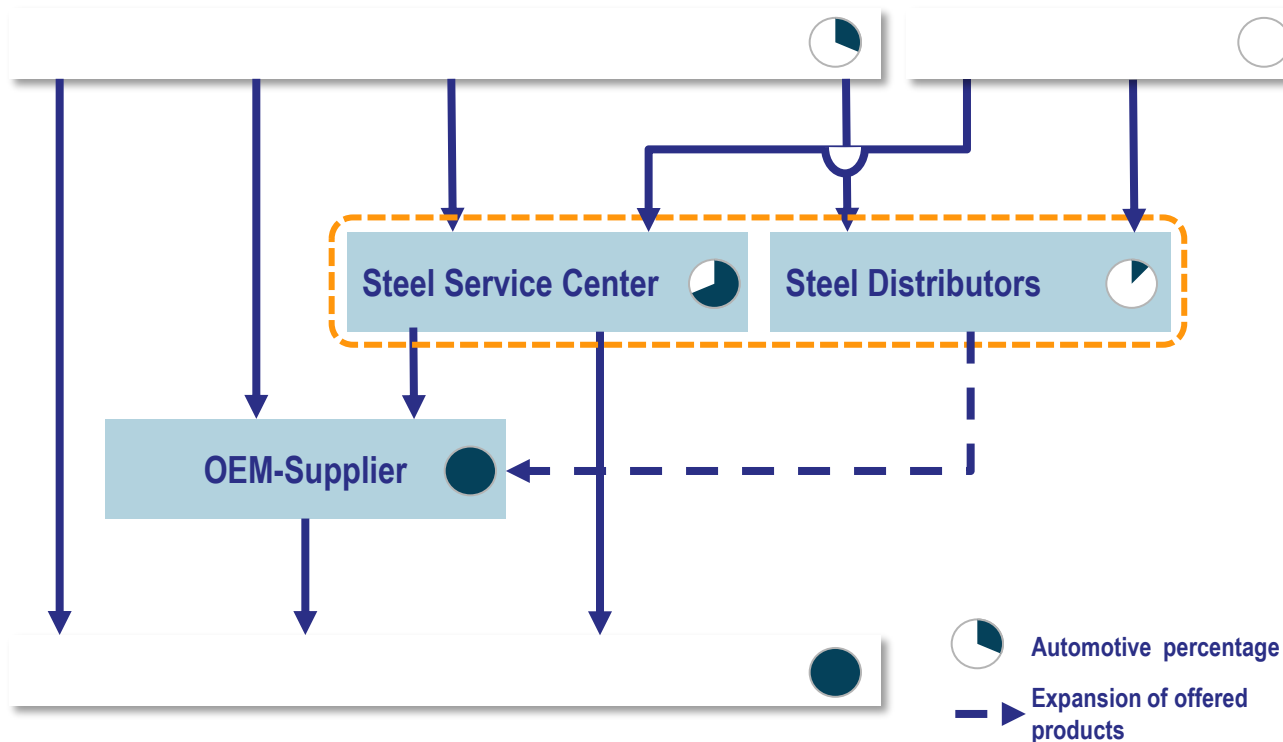


# There exist different sales channels in the CI Automotive; Placement of Steel Service Centers different for each competitor

## 2. Revenue Enhancement – Case Study

### Sales- and Logistics chain

### Simplified image



 One unit for the client

### First hypothesis for CI Automotive:

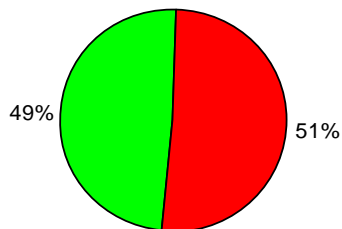
- Klöckner & Co is the biggest independent steel distributor in Europe and America (not only in CI Automotive)
- ArcelorMittal and Tata Steel have their own steel distribution (significantly smaller and industry-specific). Voestalpine and Salzgitter more active in the supplying industry
- Steel distribution ThyssenKrupp with a high percentage of foreign products in comparison to ArcelorMittal and Tata Steel
- Steel Service Centers often placed next to the production site. At ThyssenKrupp this emerged historically through the distribution, then Joint Venture with the production site, now steel distributor again. Question: OEM-supplying through the production site or steel distributors?
- Steel distributors are looking for additional value added



# In one example 51% of non-value added time (NVA) is spent on getting missing spare parts, lack of documentation and cost control

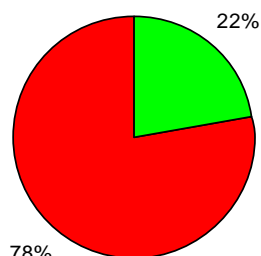
## 3. Organizational Effectiveness – Case Study

Value added versus non value added



■ Value added total ■ Non-value added total

Optimizable versus non optimizable

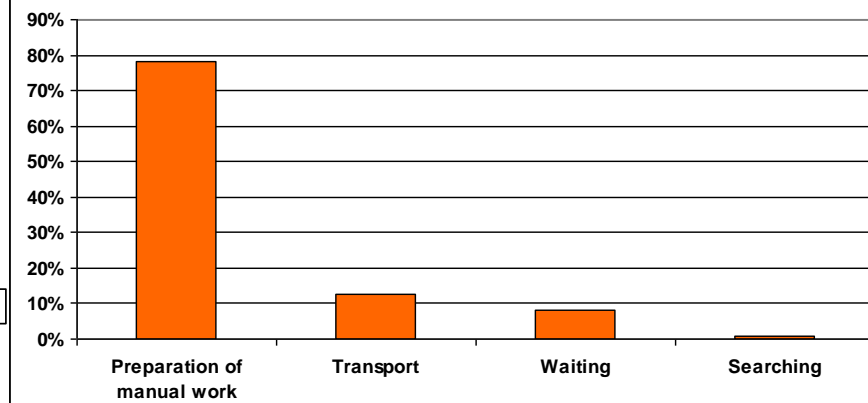


■ Optimizable ■ Non-optimizable

- **Missing or incorrect spare parts with the jobs is caused by:**
  - Incomplete and outdated spare parts lists
  - Constant need to get spares from stock despite job preparation
  - Special transports are arranged for the missing spares that are not in stock
  - Need to custom build missing parts with long lead times
- **Equipment documentation lacks critical information**
- **Seldom evaluation of stops and no improvement cycle**

**EXAMPLE: Resulting in fire-fighting, quests for spare parts and maintenance info, as well as prolonged stop throughput times**

Distribution of NVA Time Spent




"We do not learn from earlier mistakes during turnaround stops. Therefore the same mistakes are made each time over and over again."

"Sometimes contractors arrive almost 2h late. The loose control of working hours still enables writing a complete days job."

## A key success factor of a performance management project are detailed bottom-up assumptions on the benefits case

### 3. Organizational Effectiveness – Case Study

### Benefits Case Evaluation



	Reasons	%	% impactful	Focuses	% Improvement	Benefits in tEUR
1	Rework	6 %	95 %	WIP, waste, etc.	90 %	120
2	Communication	6 %	95 %	Interrupts, phone calls, etc.	85 %	115
3	Material readiness	5 %	98 %	Waiting time, etc.	95 %	105
4	Planning / inventory accuracy	7 %	85 %	Changes in priorities, etc.	75 %	135
5	Equip readiness	4%	90 %	WIP, other usages, etc.	80 %	150
6	BR	4 %	98 %	Not generated correctly, etc.	90 %	120
7	Job / people	9 %	40 %	Call-Ins, Lack of knowledge, etc.	80 %	105
8	Setup / adjustments	2 %	98 %	Technical Knowledge, Breaks, etc.	80 %	150
9	Others	4 %	50 %	Interrupts, Meetings, etc.	75 %	100
10	„Break Downs“	1 %	60 %	Equipment breaks, broken material, etc.	20 %	55

# A Daily “War-Room” meeting often is required to ensure pace and direction of each project

## 3. Organizational Effectiveness – Case Study

### Objectives

- Realize lead-time reduction
- Ensure realistic planning assumptions
- ...
- ...

### Attendees

- Head of Project Management
- Head of Planning
- Head of Supply Chain
- Head of Operations
- ...
- ...

### Ground Rules (excerpt)

- All issues can be addressed – no hidden agendas
- Individuals are responsible for delivering their own actions
- Ask for help and escalate immediately if support is not available
- No excuses

### Agenda

- Review Action Log
- Monitor daily project progress performance
- Identify potential bottlenecks and develop countermeasures

### INPUTS

- Action Log
- Project milestone plans
- Production schedule
- Test lab schedules

### OUTPUTS

- Updated Action Log
- Decisions and Actions
- Weekly status report to management board

**Timing:** ca. 45 minutes

**Frequency:** daily

**Time** xx.xx – xx.xx

**Venue:** ...

# A Project Charter has to be create individual for each module to clarify targets, to-do's and evaluate actions

## 3. Organizational Effectiveness – Case Study

Objectives	Enablers	Team Members												
<ul style="list-style-type: none"> <li>Meet agreed targets by optimizing performance in identified bottlenecks</li> <li>Identify bottlenecks in rolling forecast and take corrective actions</li> </ul>	<ul style="list-style-type: none"> <li>Detailed revised Planning</li> <li>Overview of identified bottlenecks in planning</li> <li>Daily progress review and short interval steering mechanism on bottleneck</li> </ul>	Consultants [VM] Taskforce [Client]												
Key Deliverables & Criteria	Action Timeline (weeks)													
<ul style="list-style-type: none"> <li>Upfront bottleneck identification through planning on continuous basis</li> <li>Meeting agreed output target</li> <li>Reduce throughput time</li> <li>Increase working capacity on bottlenecks</li> </ul>	22	23	24	25	26	27	28	29	30	31	32	33	34	35
	x													
			x	x										
					x									
						x	x	x						
		x	x											
					x									
				x										
KPIs for monitoring & evaluation	Identified Quick Wins	Benefits target												
<ul style="list-style-type: none"> <li>Effectiveness</li> <li>Productivity</li> <li>Lead time (plan vs. actual)</li> <li>Capacity increase</li> </ul>	<ul style="list-style-type: none"> <li>Input of resources from different departments</li> <li>Reduced lead times by working in three shifts</li> <li>Committed daily/weekly progress plan on bottlenecks</li> </ul>	<ul style="list-style-type: none"> <li>tbd</li> </ul>												

# For the first project weeks the activities are already planned on a daily basis

## 3. Organizational Effectiveness – Case Study



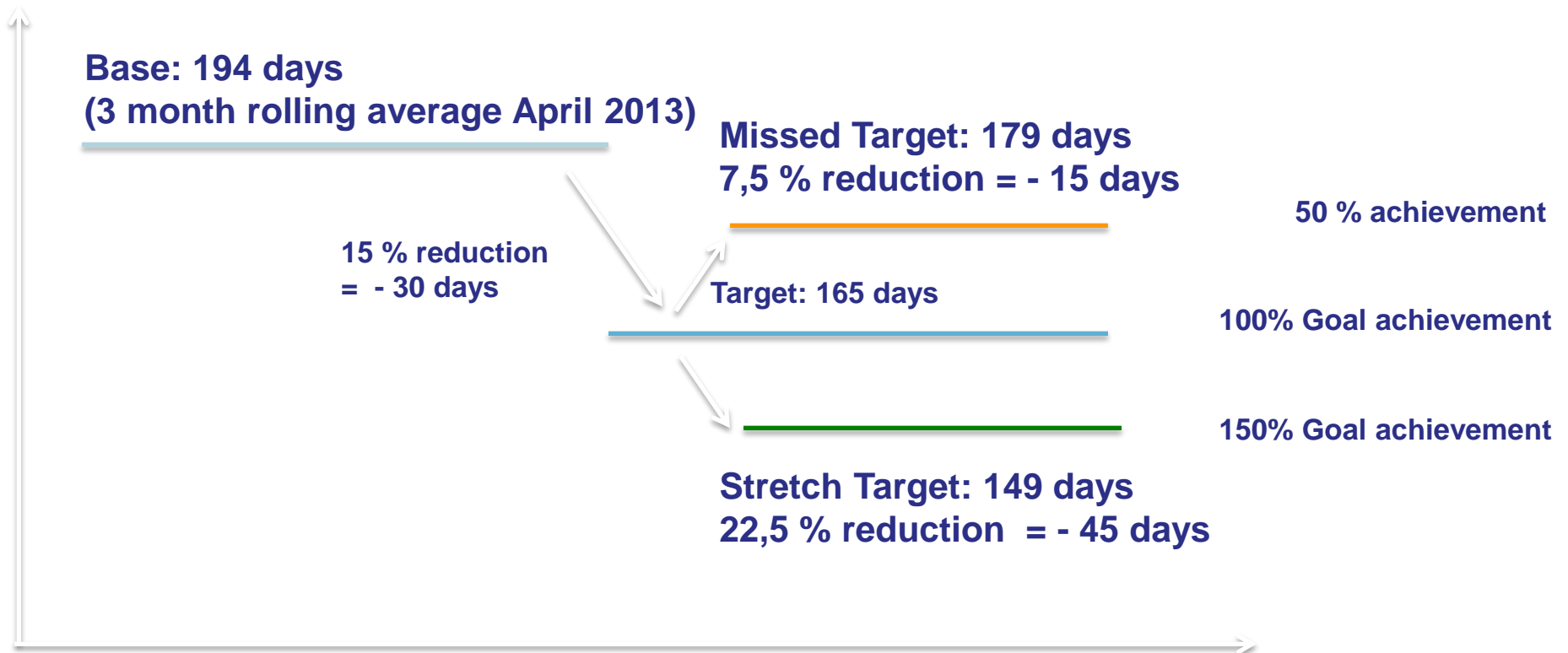
Month	1																										2												
Calendar week	1						2						3						4						5														
Project week	1						2						3						4						5														
Milestones	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9				
Work Stream	Set up Team & Infrastructure							Team Kick off								Team Building event								Team meeting								Team meeting							
	Set up War Room							War Room											War Room											War Room									
	Define benefit evaluation method							Define & agree on benefit evaluation method											Define & agree on Baseline											Develop & agree on Benefit tracking									
								Agree on key principles of future CMP											Define future CMP - Offer Phase											Define future CMP - Design Approval Phase									
																			Define Change tracking system											Identify and agree on CM board members									
																			Review and upgrade Solution List											Start to track changes									
																			Develop further ideas for LT reduction											Develop further ideas for LT reduction									
																			Identify quick wins											Install quick wins									



# Target for the project will be agreed – During the project these are reviewed regularly on a weekly or monthly basis

## 3. Organizational Effectiveness – Case Study

### Target Setting on a KPI





# Key element of sustainable performance improvement is the measurement of KPI's on a regular basis and the use in daily management

## 3. Organizational Effectiveness – Case Study

Overall Project KPI's Sep - 13

KPI Name	Value type	3m. rolling av	Actual	Plan	Perf Top	Trend
Material Turn	Ratio	3,89	3,72	4,3	●	➔

Actual is better than or equal to plan



↑ Trend increased or equal

Actual is max. 10% less than plan



➔ Trend lies between +0% and -5%

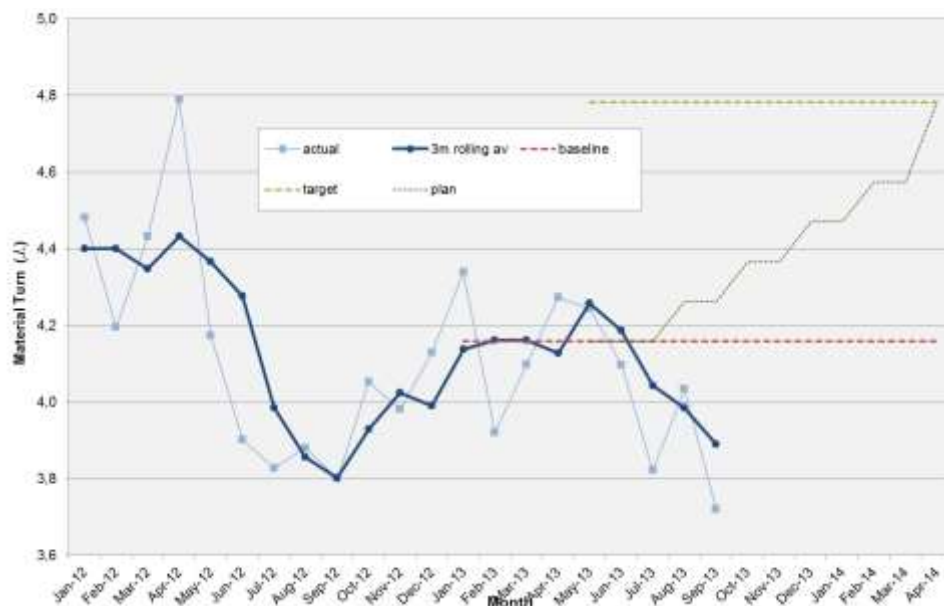
Actual is more than or equal 10% less than plan



↓ Trend decreased -5% or more

Perf.= Performance (deviation to plan)

Trend = (actual 3 m rolling A. - last 3 m. rolling A.)



## Monthly KPI Dashboard

### Comments

The 3 month rolling average of the material turnover decreased from a baseline ratio of 4.16 to 3.89 per September 2013.

The reason for the decrease is driven by an increase of material needs due to the high workload in production in the last months of 2013.

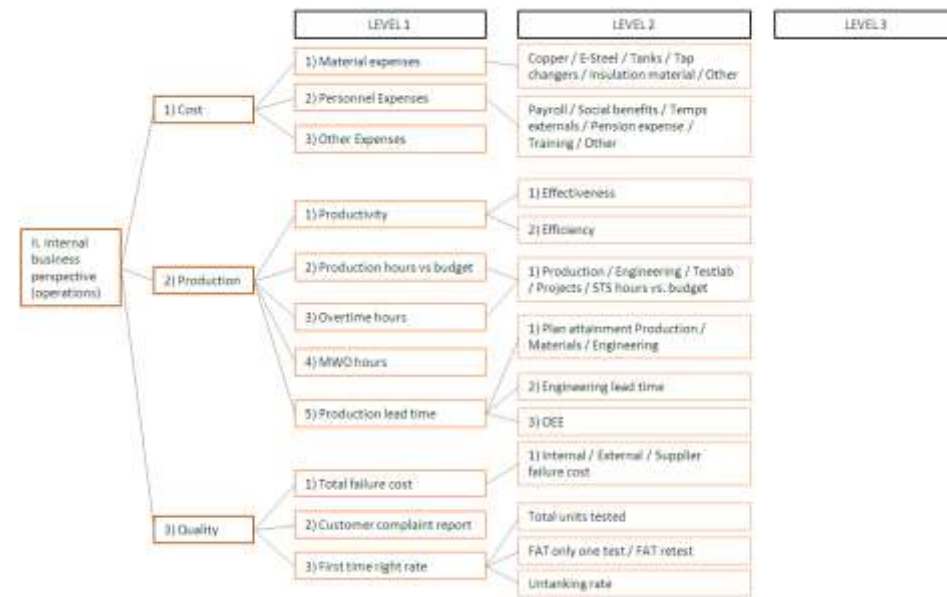
The production plan 2014 shows a rather stable monthly output and therefore we expect to show better material turnover numbers in 2014.

### Actions

- Prognosis of WIP pattern going forward will be finalized in October (as part of Forecast 2013 and Budgeting 2014 process)

# The KPI-tree in the management operating system is installed by e.g. using (balanced) score cards

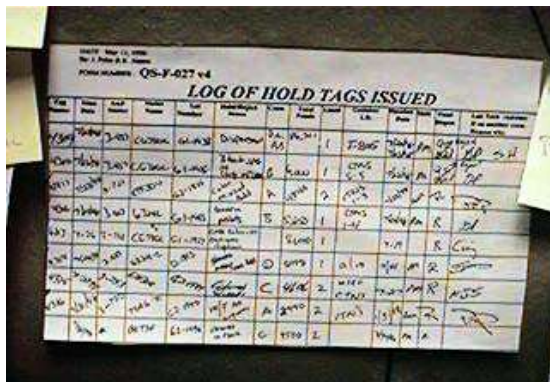
## 3. Organizational Effectiveness – Case Study



- Key Tool for ALL managers and departments
- Operational report and MOS
  - from Level 1 (monthly) until November
  - up to Level 3 (higher frequency)
- Customer / Learning after November

# Process analysis still leads to best results for the team by using process maps and brown papers

## 4. Process Excellence – Case Study



LOG OF HOLD TAGS ISSUED

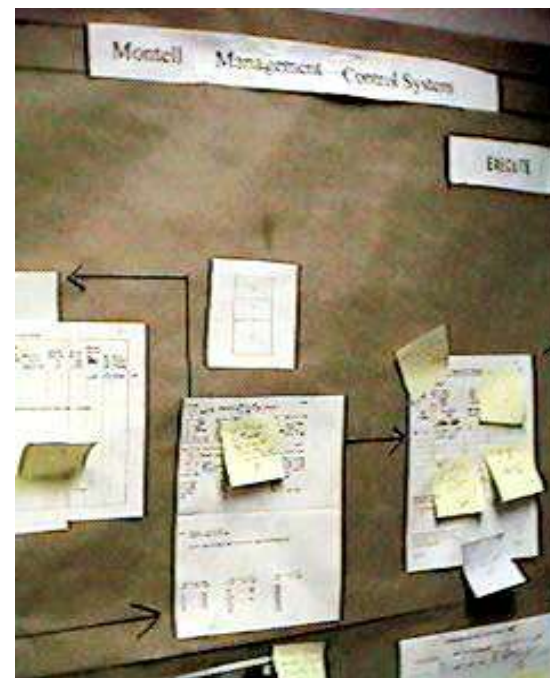
Item No.	Item Name	Location	Quantity	Issue Date	Issue By	Issue To	Issue For	Issue Status	Issue Remarks
1001	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1002	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1003	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1004	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1005	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1006	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1007	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1008	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1009	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...
1010	3-000	CUSTOM	GLASS	DURHAM	AS	1	7-28-05	ISSUED	ISSUED FOR...

Use 'live' documents



Involve your client in preparation

- Illustrate how information is utilized to make decisions.
- Highlight disconnects or missing system elements.
- Indicate where new systems will be implemented.
- Don't overcomplicate it!

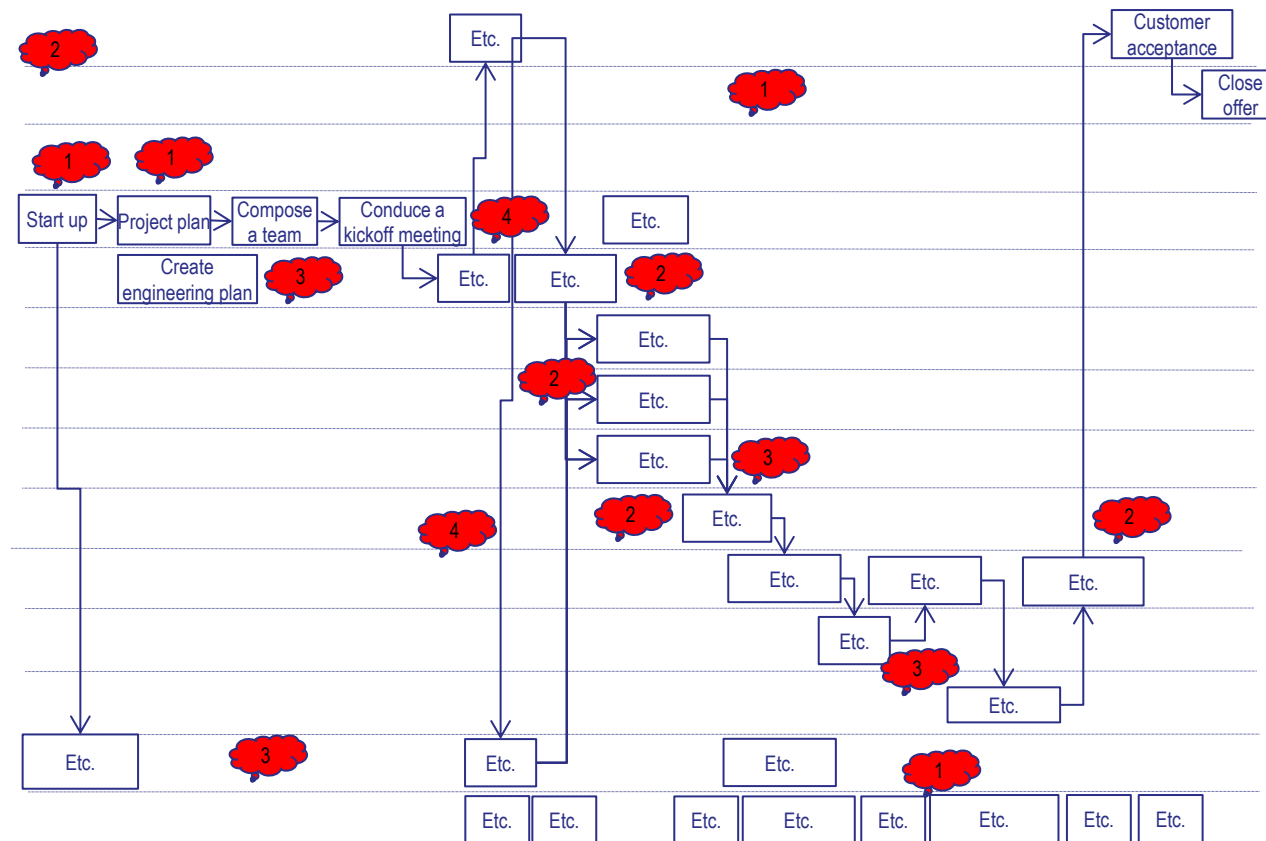


Use 'post-it' notes to collect feedback and comments

# Key issues in the processes are to define the appropriate bid decision and to enhance the pre-calculation incl. appropriate major approval

## 4. Process Excellence – Case Study

Function
Customer
Management Board
Sales
Project Management
Engineering / Design
Pre-assembly
Core assembly
Winding shop
Active part assembly
Final assembly
Test field
Transportation/Site Instal.
Planning/Material supply
Finance



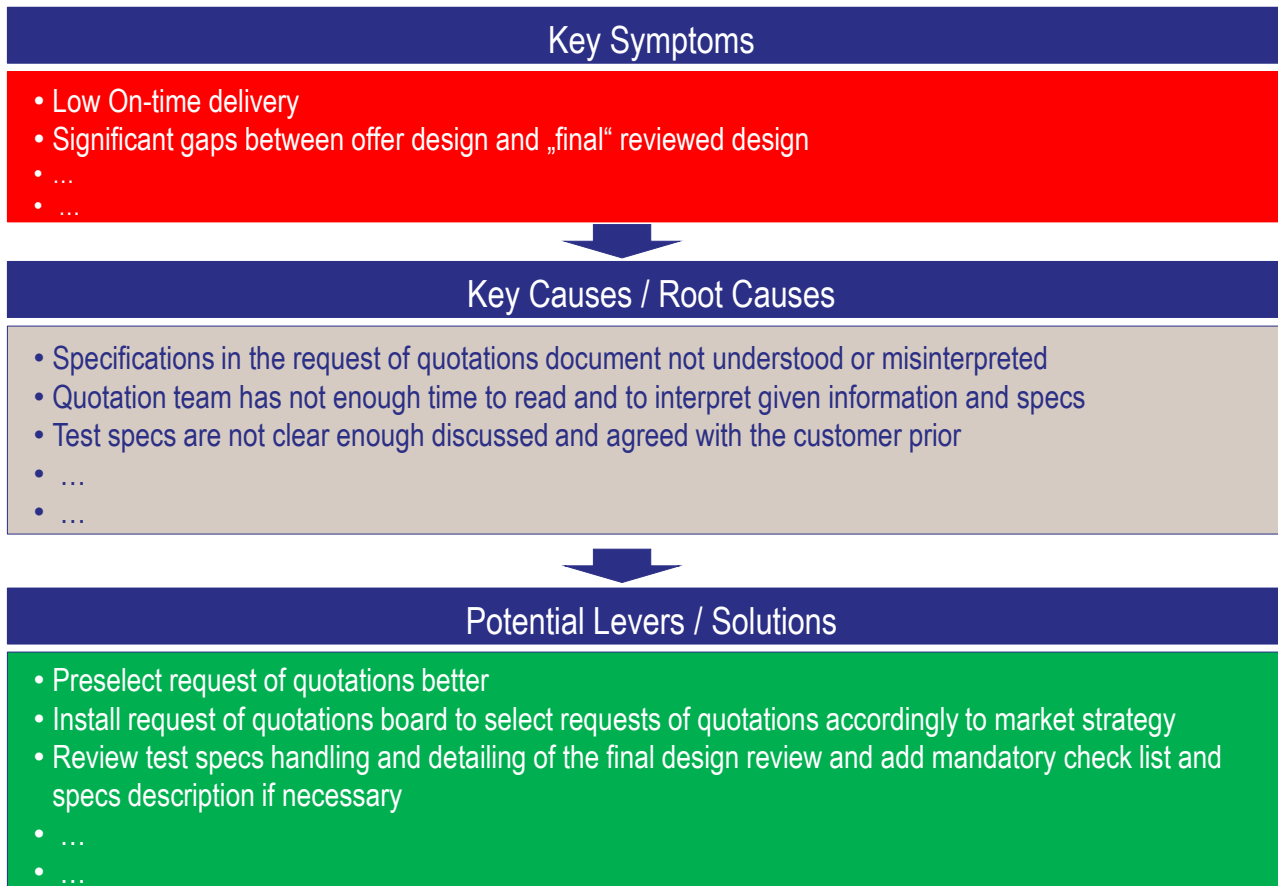
# Overview of mentioned critiques by key managers visualized before on the brown paper

## 4. Process Excellence – Case Study

Function	“Red clouds” in the OFFER process	“Red clouds” in the ORDER process	Comments
Customer	<p>“Who makes the decision yes / no”</p> <p>“No strategic sales plan”</p> <p>“no clear responsibility”</p> <p>“Too many people involved in process”</p> <p>“Time to create good work is often too short”</p> <p>“Everybody has their own way of working”</p> <p>...</p> <p>...</p> <p>...</p> <p>...</p>	<p>“Different information systems are used”</p> <p>“There is no project team and no kickoff meetings”</p> <p>“Startup of a project is chaotic (many open questions)”</p> <p>“Nobody is responsible / accountable for budget, throughput”</p> <p>“Suppliers do not deliver on time in full”</p> <p>“Quality issues caused by not experienced staff =&gt;bad quality”</p> <p>...</p> <p>...</p> <p>...</p> <p>...</p>	<ul style="list-style-type: none"> <li>• “red clouds” sprouted critique by key people</li> <li>• “Red clouds” pointed out to offer process</li> <li>• “Red clouds” pointed out to order process</li> </ul>
Management Board			
Sales			
Project Management			
Engineering / Design			
Pre-assembly			
Core assembly			
Winding shop			
Active part assembly			
Final assembly			
Test field			
Transportation/Site Instal.			
Planning/Material supply			
Finance			

# Typical tool for identifying the key symptoms, key causes / root causes as well as potential levers and solutions

## 4. Process Excellence – Case Study



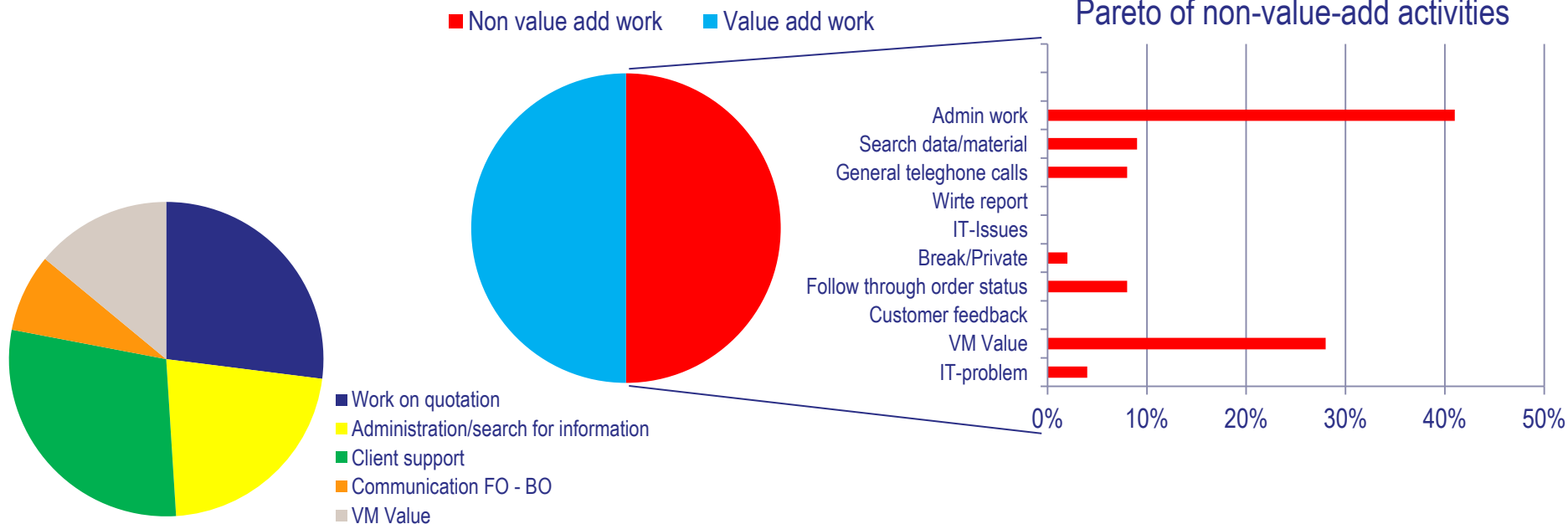
### Comments

- Key symptoms are named by key managers
- Causes and root causes have been made transparent
- Accordingly key levers and solutions have been identified



# Day In the Life Of (DILO)... Studies – e.g. back office clerk often reveal "real" and not "theroetical" issues

## 4. Process Excellence – Case Study



### EXAMPLE

- Only 50% of the tie is spend on sales/customer-related activities
- Putting data availability in place and reducing paperwork would potentially free up 12% of working time

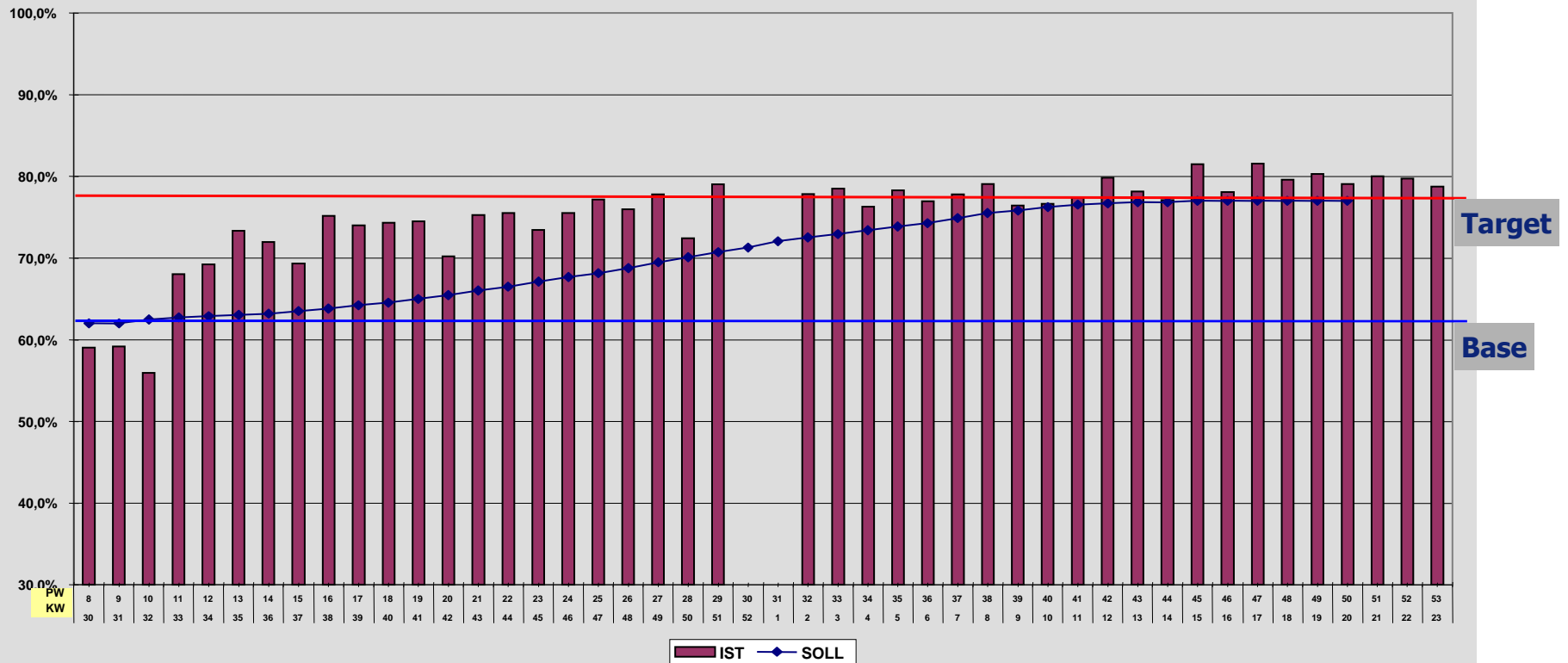


# Operational Equipment Effectiveness (OEE) is a key measure to manage productivity

## 4. Process Excellence – Case Study

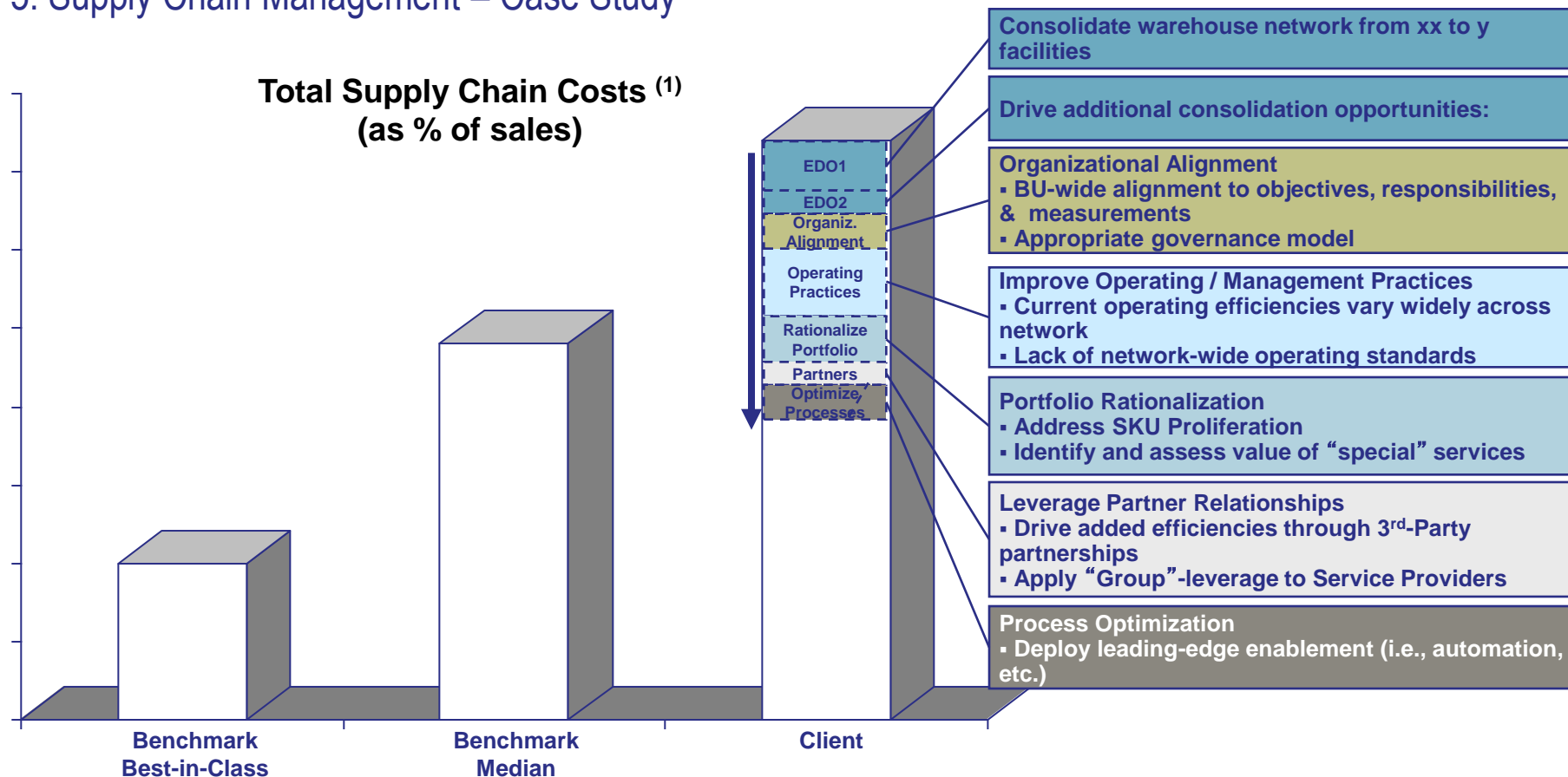
## OEE Improvement Plan

The plant efficiency for the machine focus was increased to 78%:  
Increase 15.4%



# Optimizing the supply chain configuration, operating practices and portfolio rationalization show highest improvement potential

## 5. Supply Chain Management – Case Study



(1) Source: External research

# Business Case Framework Linking Proposed Supply Chain Changes to Financial Benefit

## 5. Supply Chain Management – Case Study



No  
Quantifi-  
cation



Quan-  
tified



Savings  
to be  
quantified

Benefit	Process innovation	Updated mile-stone process	Introduction mobile calculation tool	Elimination of lead time and cost inquiries	Finalized formul. before project start	Introduction „stable basis order start“	Introduction order set	Comprehensive supply chain mgr responsibility	Harmonization of logistics structures	Integration of documentation into fulfillment process	SAP / CRM direct integration	Copy reference structures	Consistent application of project review	Change process after design freeze	Agree non-relevant parts until kick-off	Monitor date of QC availability
		Reduced Throughput Time [time]	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Reduced effort through improved process efficiency [€]	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Reduced effort through fewer budget slips [€]	√			√	√		√								√	
Minimized penalty payments [€]	√			√	√		√		√		√	√	√	√		√
Reduced risk costs [€]	√			√	√		√		√			√	√	√	√	
Revenue increases & profit improvements [€]	√	√	√				√	√	√							
Higher customer satisfaction through improved delivery performance																
Improved flexibility																

# Performance targets are set using internal and external analysis

## 5. Supply Chain Management – Case Study

Sample Data - For Reference Only

Supply-Chain Performance Versus Custom Population

		Major Opportunity	Disadvantage	Average or Median	Advantage	Best-in Class		
Customer-Facing	Delivery Performance/ Quality	Delivery Performance to Request		86%		★	3-5% increase in revenue	
		Fill Rate		84%		★		
		Order Fulfillment Lead Time			4.9	★		
		Perfect Order Fulfillment			83%	★		
	Flexibility and Responsiveness	Upside Flexibility (20% Increase)				20 ★	Increase in Customer Satisfaction	
		Supply-Chain Response Time				101 ★		
Internal-Facing	Cost	Supply-Chain Management Cost	14.1%		★		-\$54M/year	
		Value Added per Employee						N/A
	Assets	Total Inventory Days of Supply		110		★		-\$16M one-time
		Cash-to-Cash Cycle Time		162		★		-\$6M/year -\$64M one-time
		Net Asset Turns					4.9	N/A
Total of Potential Annualised Costs Savings (US\$)							\$60M	
Total of Potential One-Time Cash Savings (US\$)							\$80M	



**CREATIVITY**

**DOING**

**RESULTS**