

ICON-SCM

Supply Chain Management

We enable Demand-Driven Supply Networks

Supply Collaboration

Dr. Kurt Mannchen, Sebastian Seidel ICON

***Odette Sweden, FKG / Odette Seminar
Jönköping – November 23, 2005***

Agenda

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Company Presentation and Solution Overview

2

Supply Collaboration Solutions

3

BMW - Demand Capacity Planning

4

Renault - Proof of Concept Odette DCP

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Siemens VDO - Supply Chain Collaboration

6

Lessons Learned



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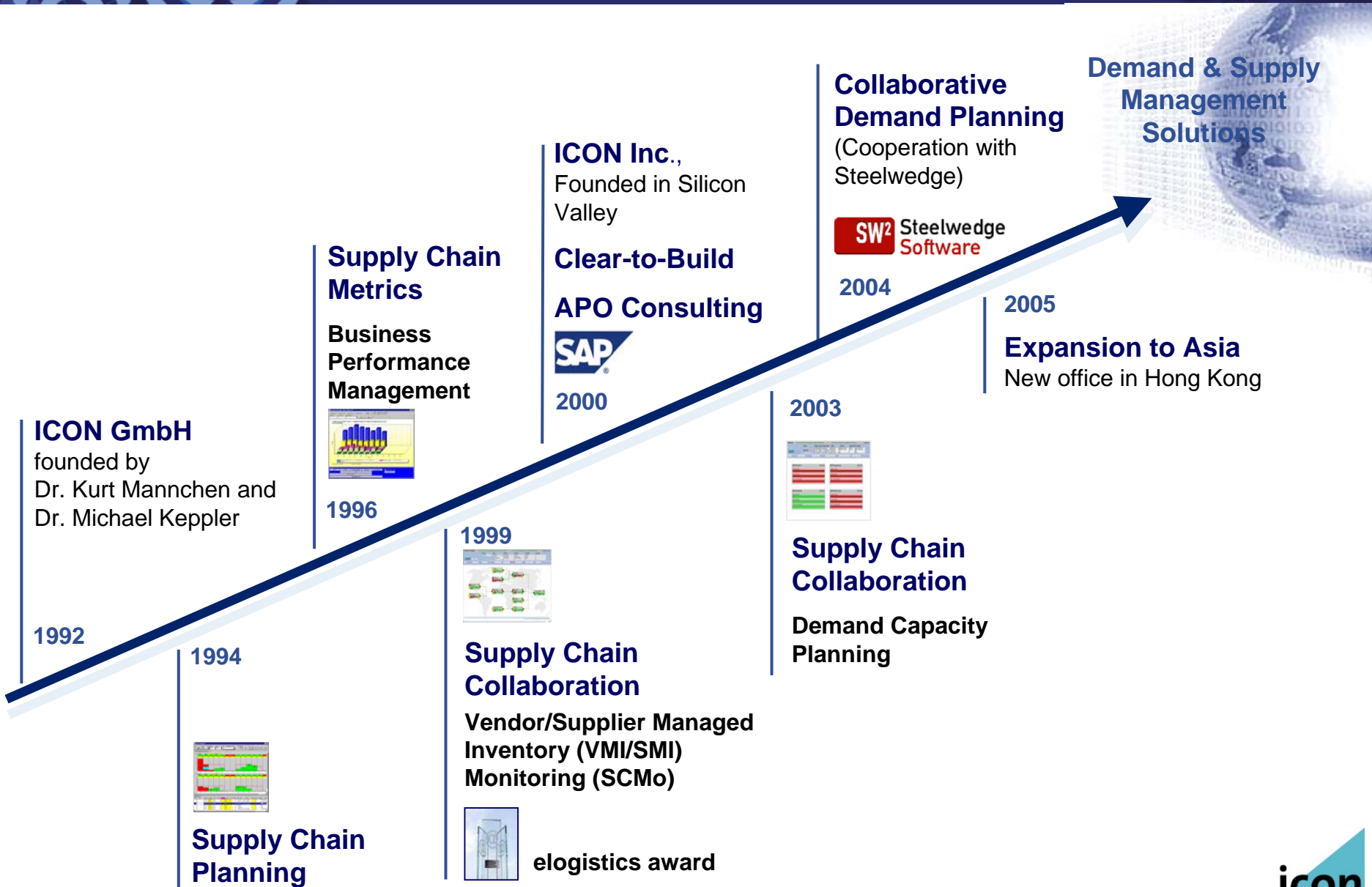


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ICON Success with Extended Demand & Supply Management Solutions

Supply Chain Management

ICON-SCM



icon

ICON provides supply chain solutions to leading Fortune 500 high-tech electronics and automotive manufacturers.

High-Tech/Electronics

- ICON understands planning and outsourced manufacturing from an Original Equipment Manufacturer (OEM) and Contract Manufacturer (CM) perspective

Automotive

- Collaborative solutions to align supply and demand
- ICON understands logistics and ramp-up management from an OEM and supplier perspective



We serve our customers
– world-wide



“ICON has proven to be a very effective tool-set in supporting the requirements of our PC manufacturing facilities. ICON’s solutions are comparably quick to implement and work well in even the most challenging of situations. The ICON implementation team continually proves its competence and expertise in solving technical and business issues.”

**Vincent Melvin,
CIO, Sanmina-SCI**

”... if someone is looking for a competitive advantage given by his supply chain tools, I would strongly suggest checking out ICON. Because ICON has an advantage versus the others: it works.”

**Claude Boivin,
Supply Chain Manager, Hewlett-Packard**

"DaimlerChrysler reduces logistics costs up to 20% by using ICON-SCC."

**Dr. Hartmut Graf
Head of Logistics & Supply, DaimlerChrysler Sindelfingen**

The ICON solutions interoperate seamlessly with complementary products and services. Our cooperation with accomplished partners is a key reason for this. We partner with leading companies in strategic consulting, development, implementation and on-going support in operational business.

- **Consulting Partners**

Industry experts in implementations and services such as strategic consulting, process design etc.

- **Technology Partners**

Leading technology providers whose products and services complement our SCM suite



VDI

Member in the department „Supply Chain Management“ (A7) in VDI-FML (Fördertechnik Materialfluss und Logistik)



Member in project teams Supply Chain Monitoring (SCMo), Vendor Managed Inventory (VMI) and Demand Capacity Planning (DCP)



Member since September 2002

The logo for ITA VDA, with "ITA" in a large, bold, green font and "VDA" in a smaller, bold, green font to its right.

Design and realization of a pilot project: Interoperability in Logistical Networks (SCMo, VMI, DCP)

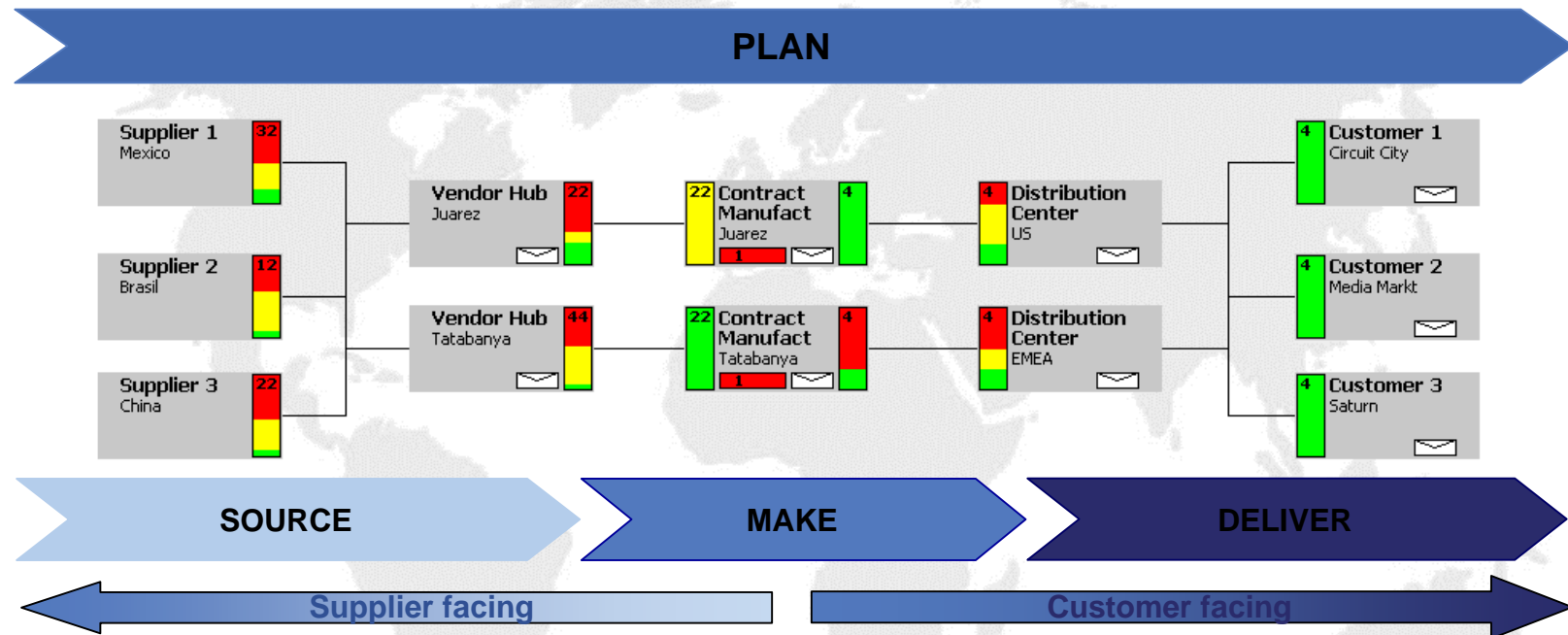
The logo for the University of Karlsruhe (TH), featuring a green square with a white 'U' inside, followed by the text "Universität Karlsruhe (TH)" in a black, sans-serif font.

Research cooperation with Institute for Conveying Technology and Logistics (Institut für Fördertechnik und Logistiksysteme)



EU research project ProdChain: Development of a decision support technique to analyze and improve the performance of globally acting production and logistics networks

DDSN is THE Pre-condition for Ultimate Supply Chain Efficiency



- Collaboration on materials supply and capacity availability
- Execution of supply orders
- Quickly simulations of what-if impact on demand
- Integrated production, transportation and procurement planning
- Rapid and reliable customer acknowledgement calculation
- Fast what-if calculation and scenario analysis
- Collaboration on sales demand plan
- Matching of constrained supply to demand
- Execution of customer orders
- Quick simulations of what-if impact on supply

Strategy

Supply Chain Strategic Design and Restructuring

Objectives

Management-
by-Exception

Monitoring

Visibility
Monitoring and Metrics/KPICollaborative
Planning &
ExecutionCollaborative
Demand
Forecasting
& PlanningSupply
Collaboration
(SCMo,
VMI/SMI,
DCP)Demand &
Supply
Planning &
MatchingSupply
Chain
ExecutionSupply Chain
Systems BaseAdvanced Planning Engine, Database, and Portal
Secure Communication and Authorization

B2B Integration

Transactional
Systems (ERP)

Client

Customers

Distribution
Partners

Suppliers

ICON Supply Chain Solutions

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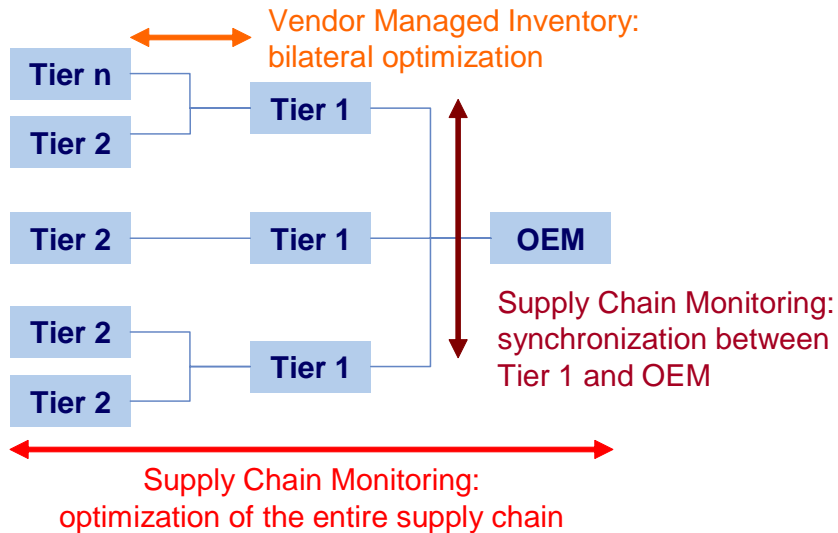
Customers

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Partners

Suppliers

ICON Supply Chain Solutions

Collaborate with all agents of your supply chain to provide the basis for a responsive network

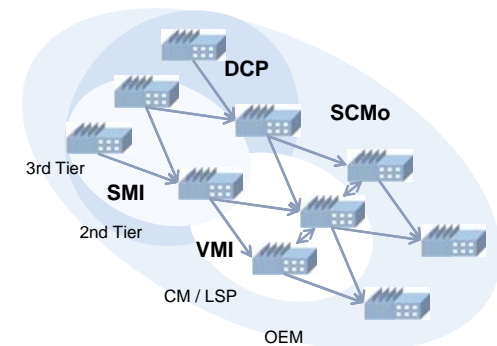


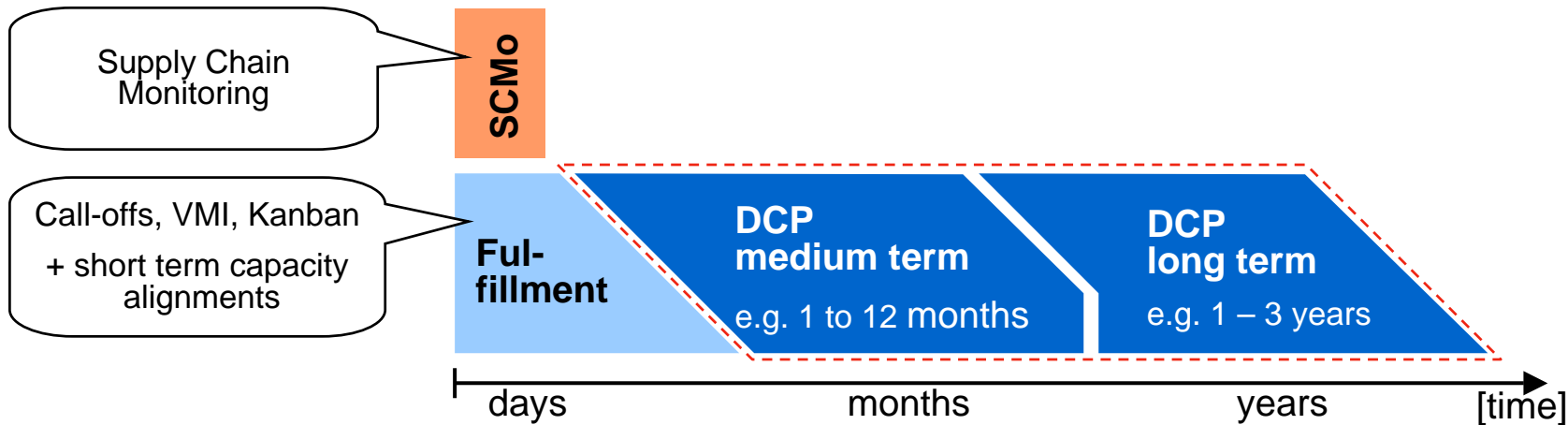
Features

- Collaboration between manufacturers, suppliers and customers through web-based information platform as extension to ERP system
- Real-time visibility and proactive management of potential shortages
- Different modules: Supply Chain Monitoring, Demand Capacity Planning and Vendor/Supplier Managed Inventory

Benefits

- Increase customer service level through perfect order fulfillment
- Prevent bottleneck situations and optimize capacity and materials utilization
- Minimize inventory





users	operations (logistics/production)	production planning	sales / purchasing, project mgmt.
examples of measures	overtime, premium freight, banking	additional shifts, small investments, large banking	major investments (tooling, machines, etc.)

Visualization of inventory / capacities and alignment with demand in terms of a glass pipeline across the whole supply network (permanent or situational in critical supply chains).

Goals:

- Stable and secure supply in spite of minimized inventory
- Pro-active management of bottleneck situations (early warning system, emergency tool)
- Avoidance of Bullwhip Effect (uncontrolled built up of demand)
- Optimized allocation of inventory in bottleneck situations

Benefits:

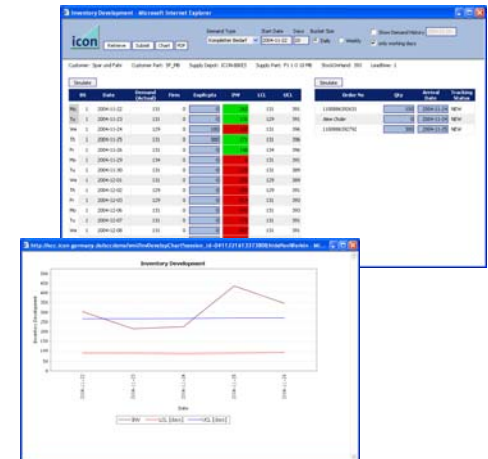
- Increased availability in critical supply chains
- Increased flexibility and synchronization in the supply chain
- Reduction of non value-adding activities (Exception Management)
- Reduction of extra costs like extra transports and shifts
- Reduction of scrapping during ramp-up and production changes



Vendor Managed Inventory (VMI) is a bilateral process that manages delivery at the customer site and therefore production at the supplier site. VMI is often but not necessarily combined with the consignment principle.

Goals:

- Transfer of disposition responsibility to the supplier
- Transparency over inventory and planned customer demand in real-time
- Additional support for optimized production at the supplier
- Early warning in case of exceptions – alerts and workflow



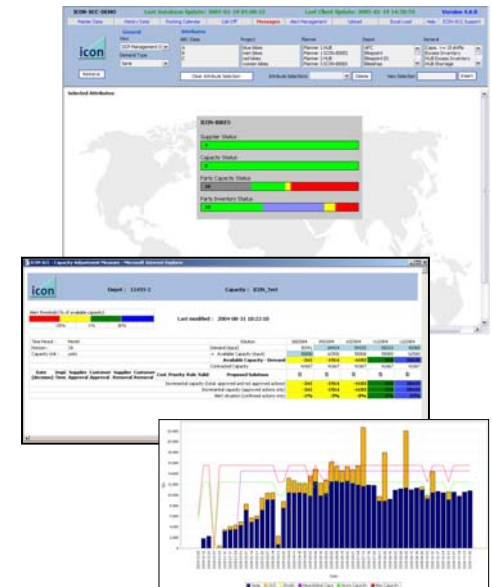
Benefits:

- Reduction of non value-adding activities and administration effort for customer and supplier
- Considerable improved supply situation even at critical suppliers
- Reduced inventory and transportation costs
- Reduced production costs (set-up costs, over-hours, extra shifts)

Early identification of serious discrepancies between capacity supply and demand beyond the horizon that is covered by existing production planning systems.

Goals:

- Avoidance of capacity shortages and under-utilization in a middle- to long-term planning horizon
- Transformation of the capacity planning process towards an integrated process covering various companies/sites (pro-active and structured)
- Transparency over long-term demand consolidated for all relevant parts (multi customer scenario)



Benefits:

- Reduction of profit cuts because of capacity shortages
- Reduction of extra costs because of capacity shortages (over-hours, extra shifts)
- Reduction of unplanned ad-hoc activities (proactive emergency avoidance)
- Objective data for middle- to long-term investment planning



SCMo - Seats and Door Inserts E-class (W211)

Participants: 1st to 6th level; 11 plants (Europe, Africa)



Supply Chain Performance Management

Participants: 5 HP plants / 15 Logistic Service Provider (HP worldwide)



Demand Capacity Planning Ramp-up BMW series 1 and 3

Participants: 1st to 3rd level; 80 plants (Europe, Africa)



SCMo – Mutli-OEM-Connectors: DC (E, S) ; BMW (5, 7, Z4); Audi (A6, A8)

Participants: 1st to 5th level; 31 plants (Europe, North America, Asia)



SCMo – Ramp-Up Audi A6 Cockpit

Participants: 1st to 5th level; 17 plants (Europe)



SCMo - Porsche Cayenne Interior (center console and cockpit)

Participants: 1st to 4th level; 6 plants (Europe)



Demand Capacity Planning – Proof of Concept of the Odette Recommendation

Participants: 1st level; 10 plants (Europe)



Vendor Managed Inventory / SCSMo / DCP – Diesel Systems

Participants: 1st to 3rd level; 14 plants (Europe)

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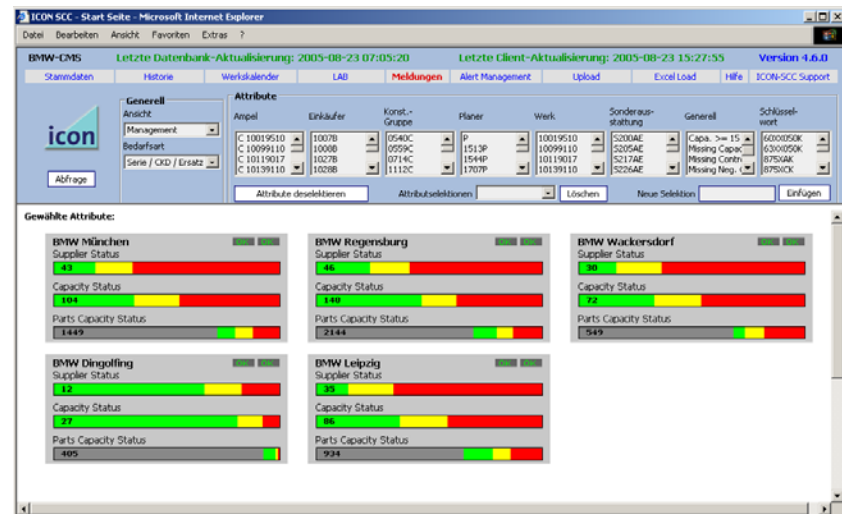
Siemens VDO - Supply Chain Collaboration

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Lessons Learned



Ramp-up of BMW 1 and BMW 3 series



- Up to 80 suppliers integrated
- Over 1.000 parts monitored

Display if capacity is:

- critical (red)
- "endangered" (yellow)
- sufficient (green)

Number and link
of/to the parts that are
produced on that capacity

ICON SCC - Capacity Status Page - Microsoft Internet Explorer

Depot: Coating Capa Group: PRODUCTION

Retrieve Tab PDF Excel

Depot	Capacity	Critical Horizon	Short Term	Long Term	Bucket Size	# Parts
Coating	▲					5
Coating	▲					8
Coating	▲					6
Coating	▲					1
Coating	▲					6

ICON SCC - Stock Page - Microsoft Internet Explorer

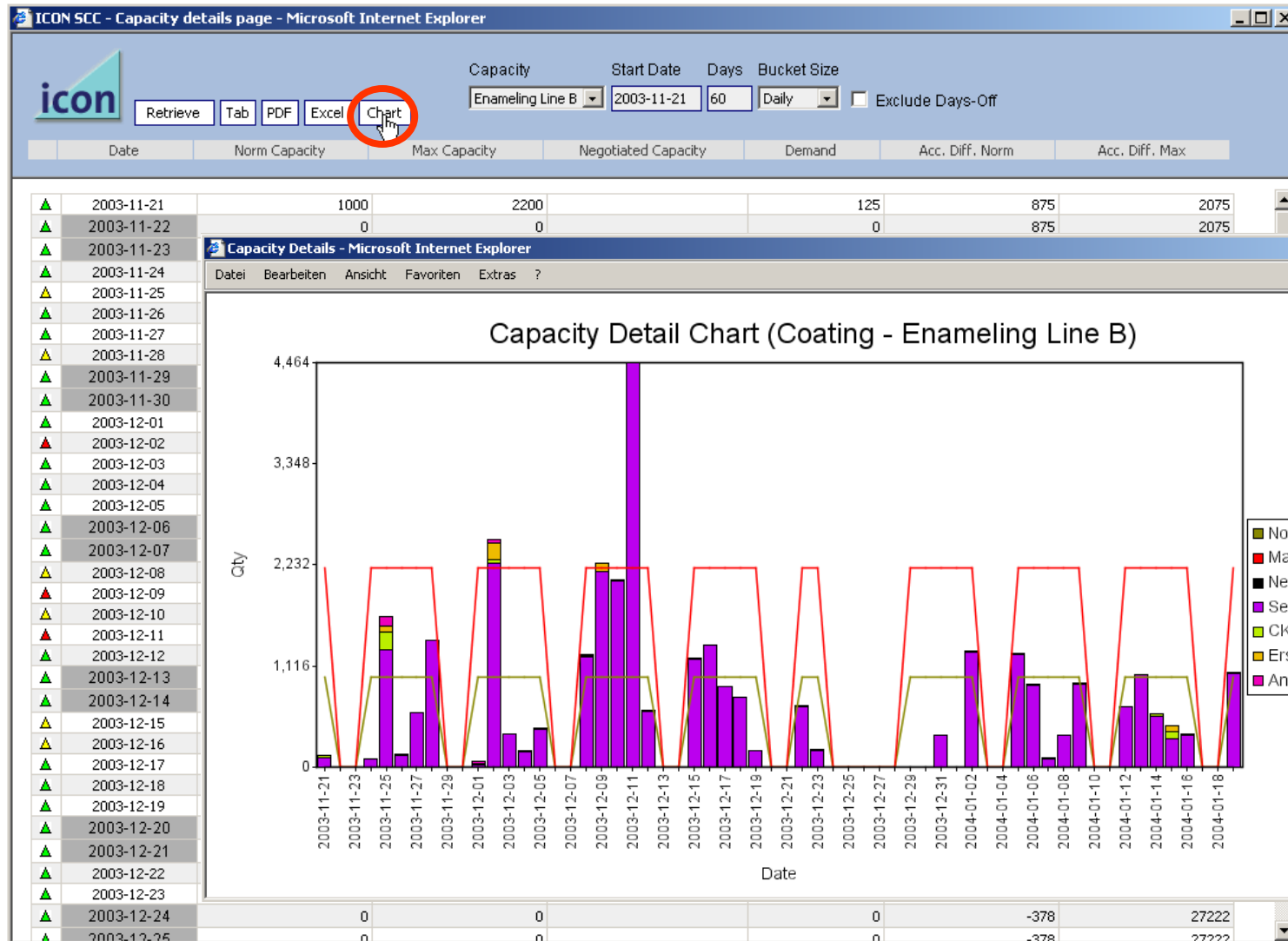
Sort by: Depot

Retrieve Tab PDF Excel

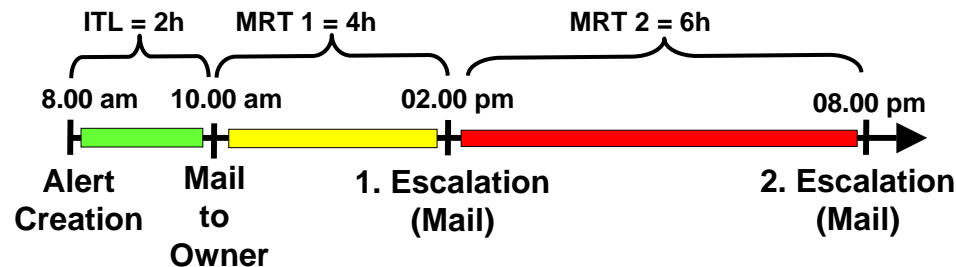
Depot	Part	Description

Selected Rows : 5 Selected Attributes : -

▲	▲	↗	Coating	R2 2 O 10 WB	FRAME WOMEN COATED B
▲	▲	↗	Coating	R2 2 O 20	FORK BAR COATED
▲	▲	↗	Coating	R2 2 O 40	SADDLE-TUBE
▲	▲	↗	Coating	R2 2 O 10	FRAME COATED
●	▲	↗	Coating	R2 2 O 30	HANDLE BAR COATED



- In case of a new alert creation users assigned to different escalation levels will be informed by E-Mails following a pre-defined and automated time phased escalation scheme



- In the „Alert Management Board“ alerts are resolved following a predefined workflow providing transparency to all relevant persons

ICON SCC - Alert Board - Microsoft Internet Explorer

icon Retrieve

	Action Item	Creation Time	Modified by	Last modified	Action	Status
	AI 00059					
	AI 00059	2004-03-22 12:15:12	EIKONN	2004-03-29 14:54:45	Drohender Kapazitätsengpass wurde registriert	Closed
	AI 00059	2004-03-29 14:50:08	EIKONN	2004-03-29 14:53:24	Mögliche Kapazitätserhöhung wird überprüft	Closed
	AI 00059	2004-03-29 14:50:57	EIKONN	2004-03-29 14:50:57	Management entscheidet nächsten Freitag	In progress

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- The business case based on the middle term horizon (from M+4 to Y+1) on the projects:
 - On the MEGANE project which is a great commercial success and on the maximum of several capacities,
 - On the MODUS project which is in ramp up phase



- Prevent the inadequate capacities to the needs by sites on the middle term:
 - For critical items (new equipments, mix variation...)
 - For internal or external capacities
 - For multi sites and multi models capacities.

ICON SCC - Start Page - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

RENAULT DCP DEV Last Database Update: 2004-08-16 15:38:38 Last Client Update: 2004-08-31 10:15:31 Version 4.5.7

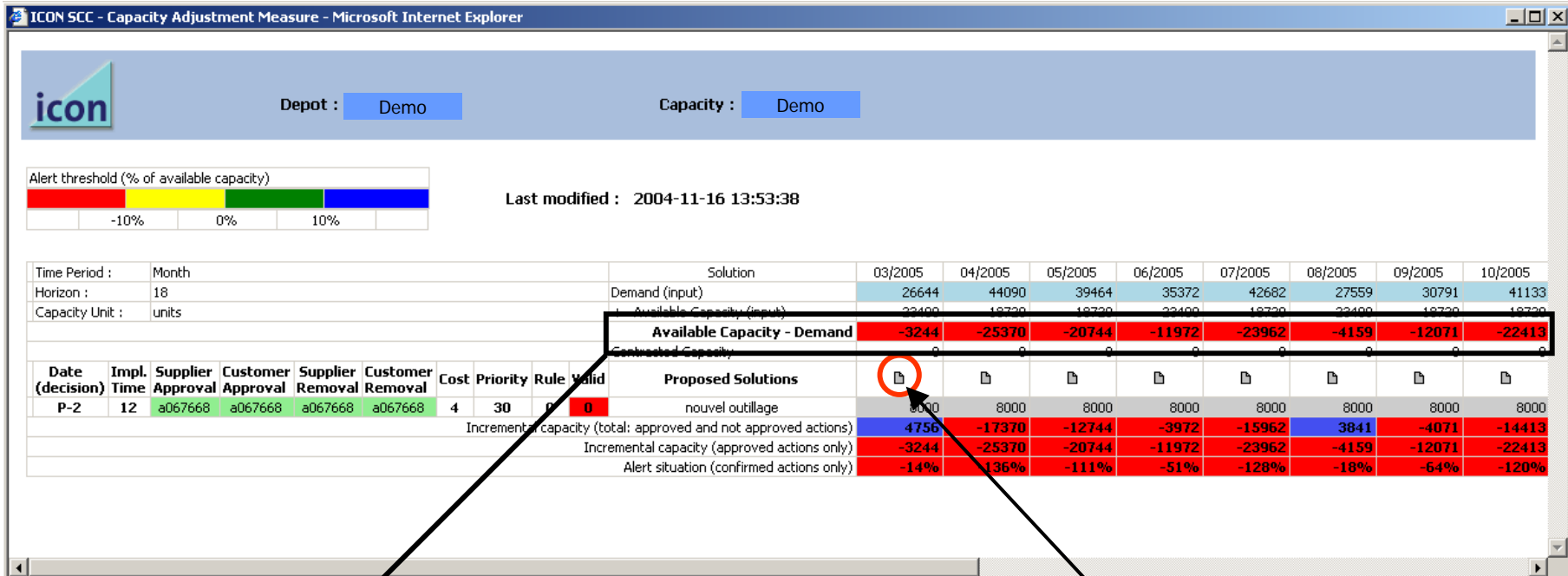
Master Data History Data Working Calendar Call Off Messages Upload Help ICON-SCC Support

General
View: Management
Demand Type: GLOBAL
Retrieve

Attributes
Depot: 000, 023, 024, 029
Clear Attribute Selection Attribute Selections Delete New Selection Insert

Selected Attributes:

Depot	Supplier Status	Capacity Status	Parts Capacity Status
RENAULT CENTRAL (000)	0	0	0
RENAULT VALLADOLID (023)	1	2	8
RENAULT PALENCIA (024)	1	1	2
RENAULT OYAK (029)	1	2	2
RENAULT DOUAI (039)	1	1	2



Critical Situation – Insufficient capacity
-> need for collaborative capacity increase

Start collaboration by proposing
capacity increasing actions to your
customer

Chose from a catalog of predefined measures...

ICON SCC - Insert Capacity Adjustment - Microsoft Internet Explorer

Capacity Adjustment Measure

Depot: Demo

Capacity: Demo

Introduction Date [YYYY-MM-DD]: 2005-03-01

Measure	Priority	Preparation Time	Duration	Supplier Approval	Customer Approval	Supplier Removal	Customer Removal	Cost	Rule	Capacity Delta
<input checked="" type="radio"/> Extra Shift	30	0	3		p018300			4	0	4000
<input type="radio"/> Mesure 7h25	30	2	2	p018300	p018300	p018300	p018300	4	0	8000
<input type="radio"/> Mo	30	2	2	p018300	p018300	p018300	p018300	4	0	8000
<input checked="" type="radio"/> New Macine	30	3	6		p018300			4	0	2000
<input type="radio"/> nouvel outillage	30	2								

Expire Date [YYYY-MM-DD]: 2005-05-31

Capacity Delta: 4000

ICON SCC - Insert Capacity Adjustment Catalog - Microsoft I...

Capacity Adjustment Catalog

Depot: Demo

Capacity: Demo

Measure: I

Priority: 30 [1-99]

Preparation Time: 0 [1-99]

Duration: 3 [1-999]

Supplier Approval: [dropdown]

Customer Approval: p018300 [dropdown]

Supplier Removal: [dropdown]

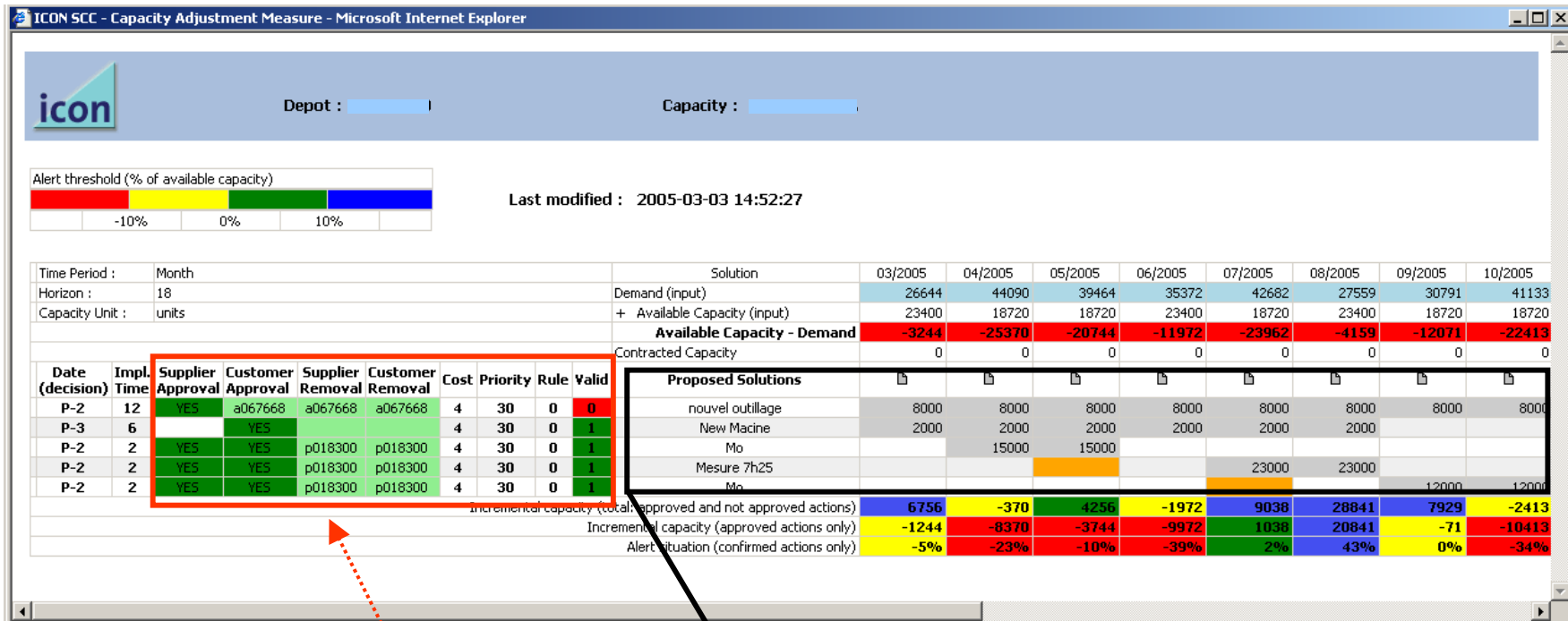
Customer Removal: [dropdown]

Capacity Delta: 4000

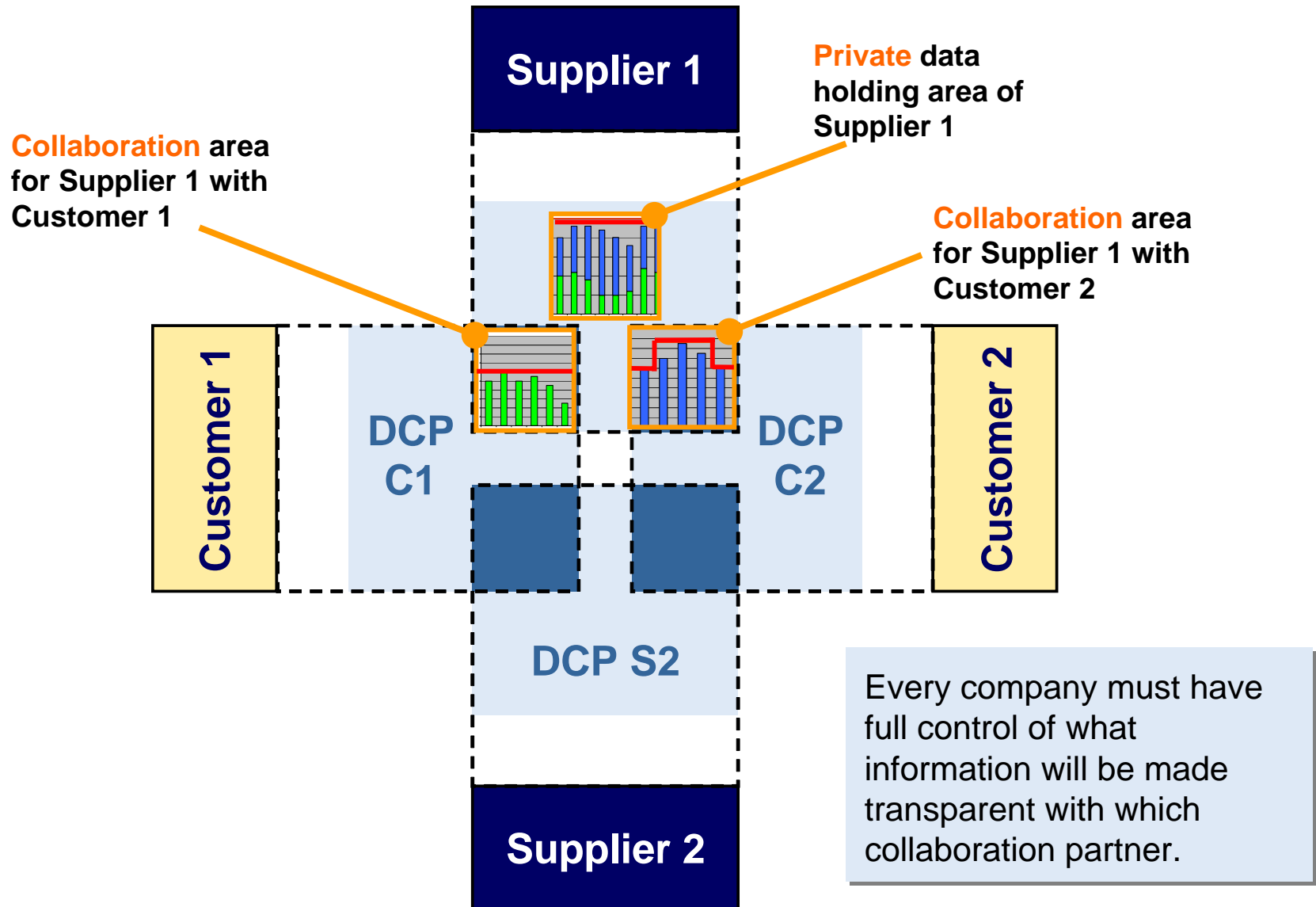
Cost: 4 [0(=min)-5(=max)]

Rule: 0

Or create new measure to lower/increase your capacities



- Chose predefined measures
- Simulate the effects of those measures
- Approve measures



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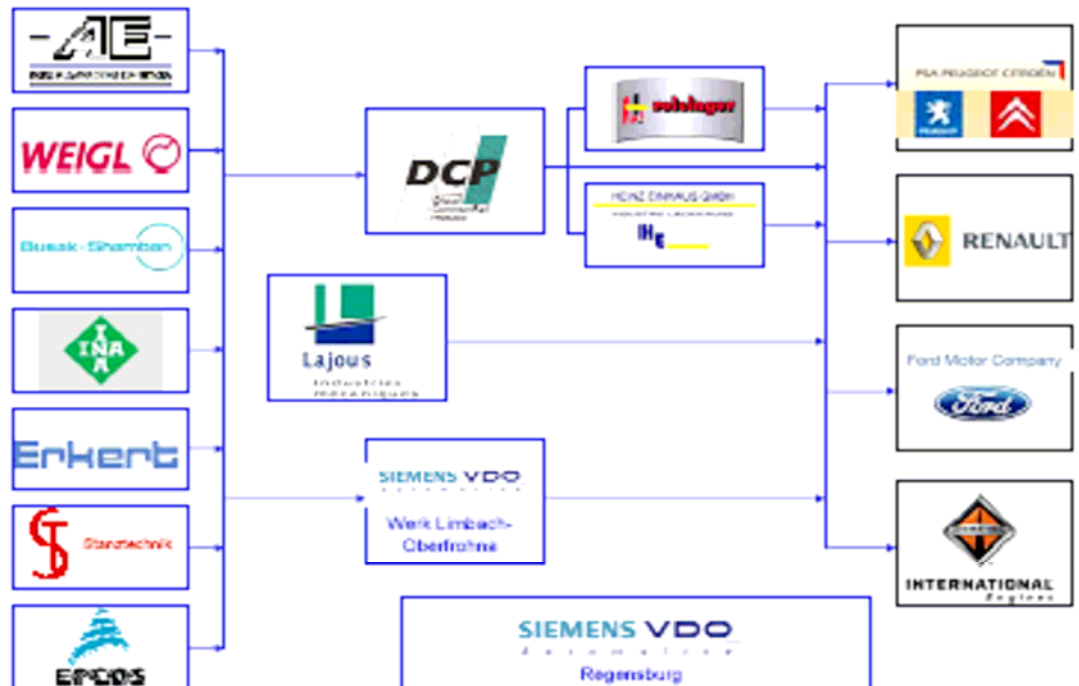
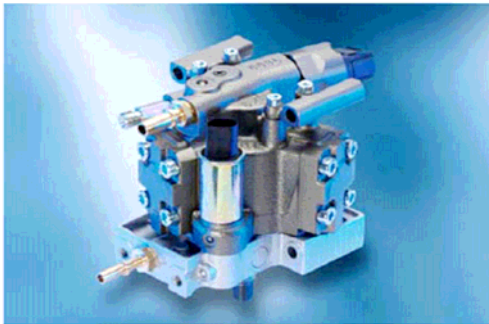
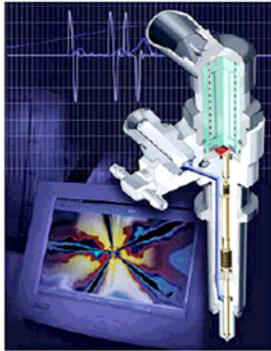
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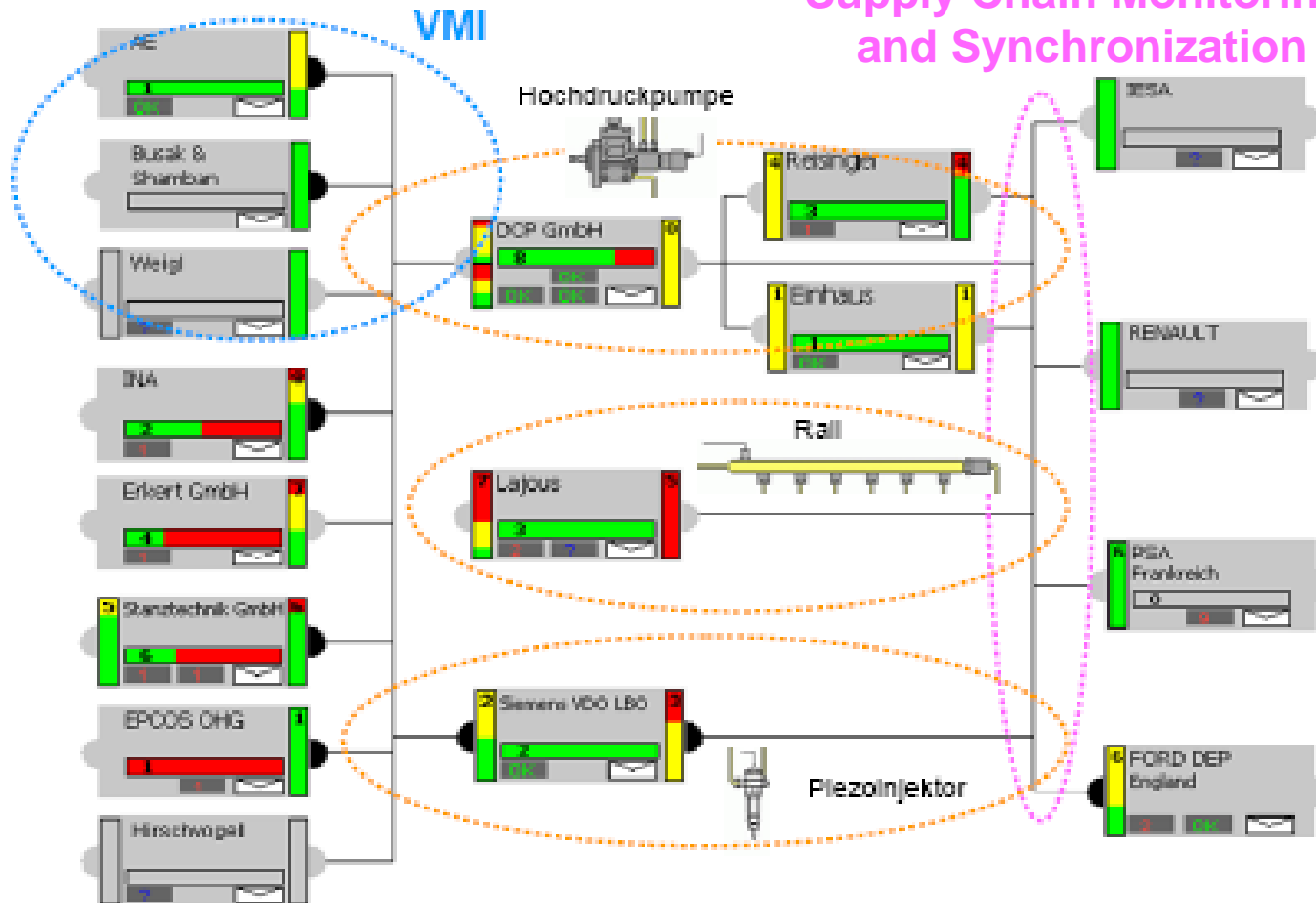
Lessons Learned



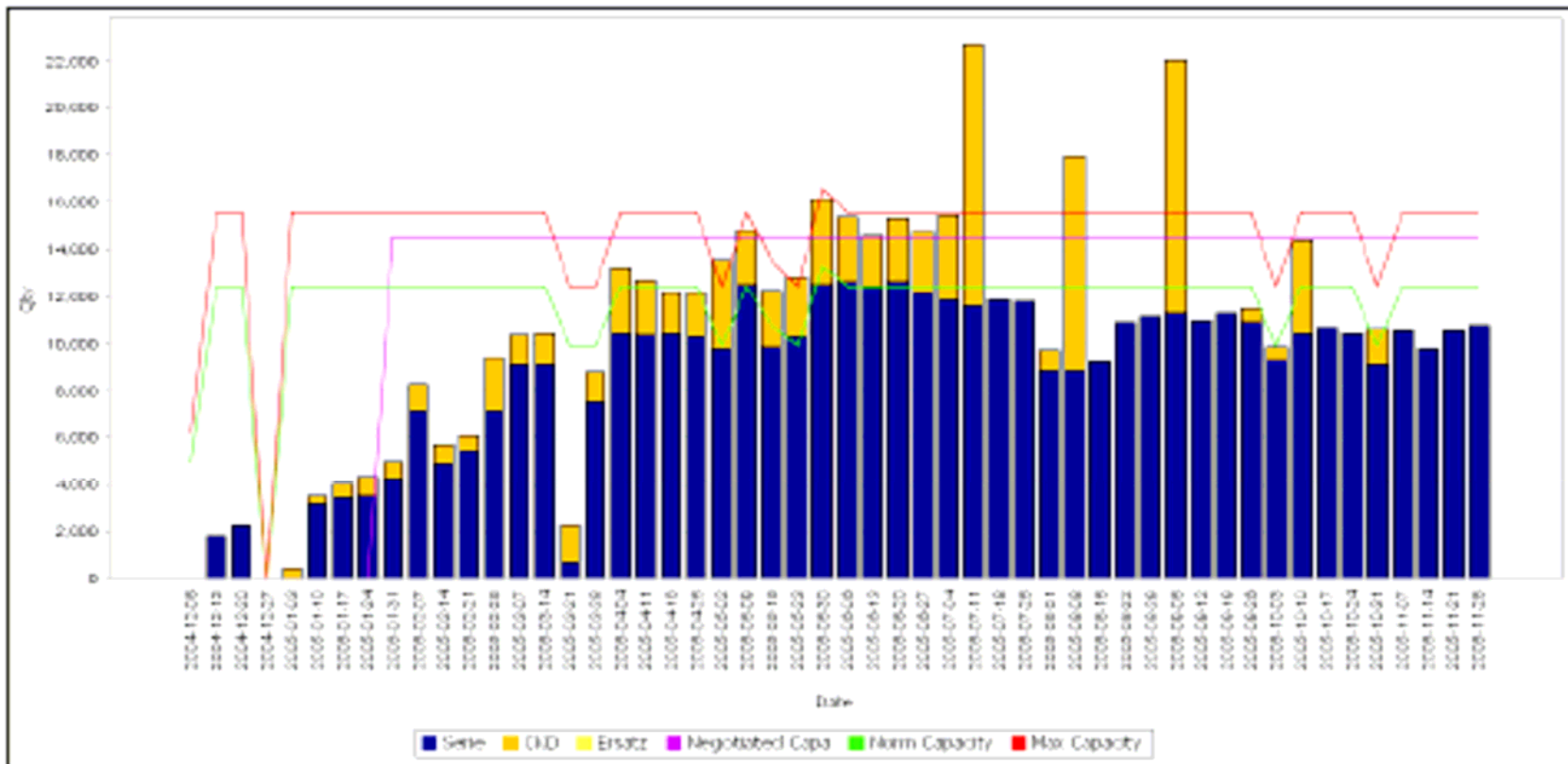
Supply Chain Collaboration Siemens VDO Diesel Systems

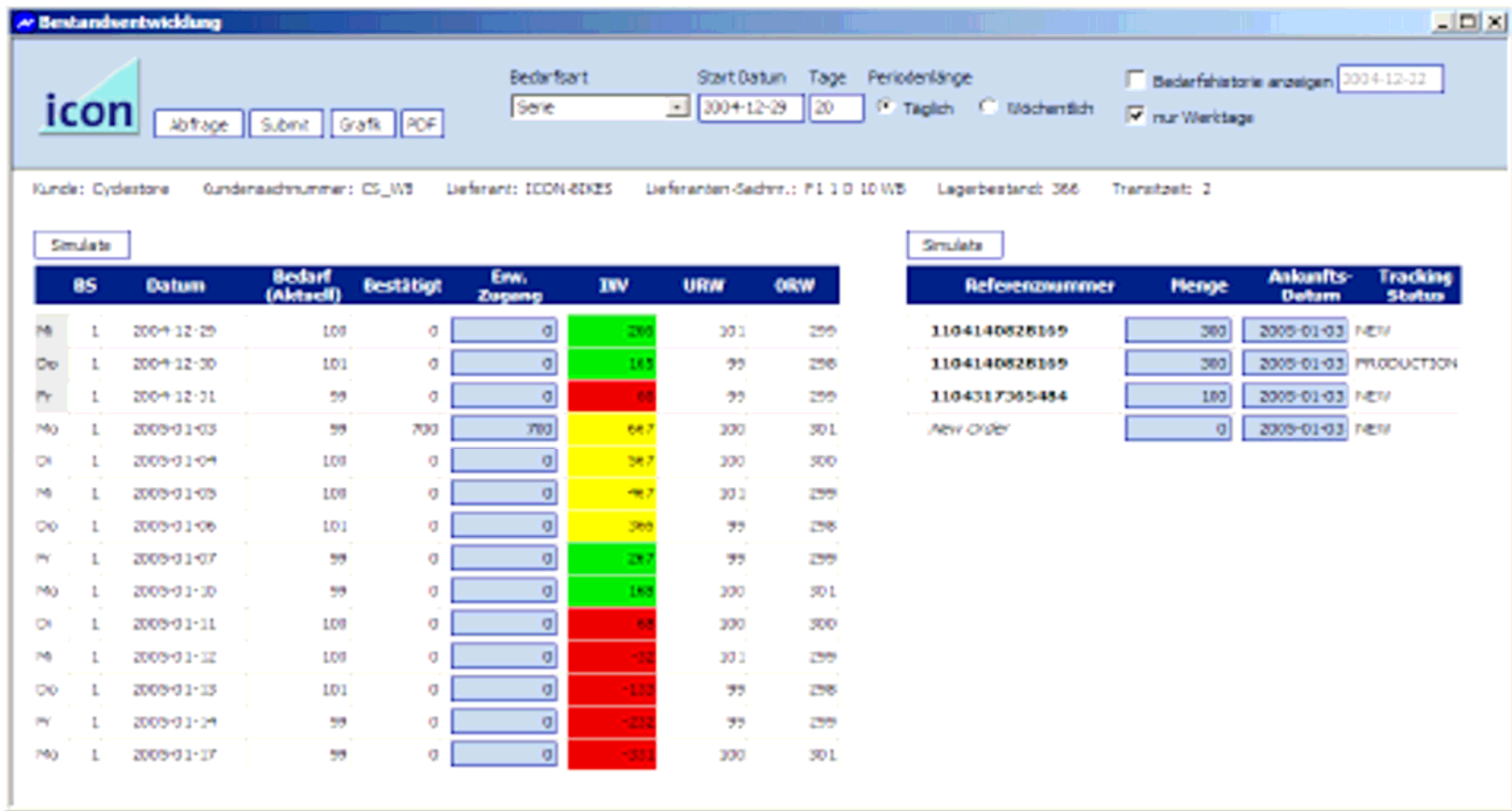


- 4 OEM's and 12 suppliers integrated
- Over 250 parts monitored

Supply Chain Monitoring
and Synchronization

Supply Chain Monitoring





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- Collaborative Processes require
 - ▶ Openess to share information
 - ▶ Partnership
- Acceptance requires Business Case with clear Win / Win situation
- Technical Feasibility is not the problem
- Changes in Business Processes are a prerequisite for success
- Benefits
 - ▶ Increased Flexibility
 - ▶ Lower Costs
 - ▶ Increased Transparency

*“[The ICON solutions Monitoring and Vendor Managed Inventory] assist us in our way towards more flexibility and responsivity. [...]
Therefore we are perfectly prepared to master complex logistic challenges.”*

Helmut Heuschneider, Director Logistics,
Siemens VDO Diesel Systems



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