

Supply Chain Management and Logistics Strategy Overview

Peter Flensburg, Vice President T&L Development
October 9th, 2014

Public



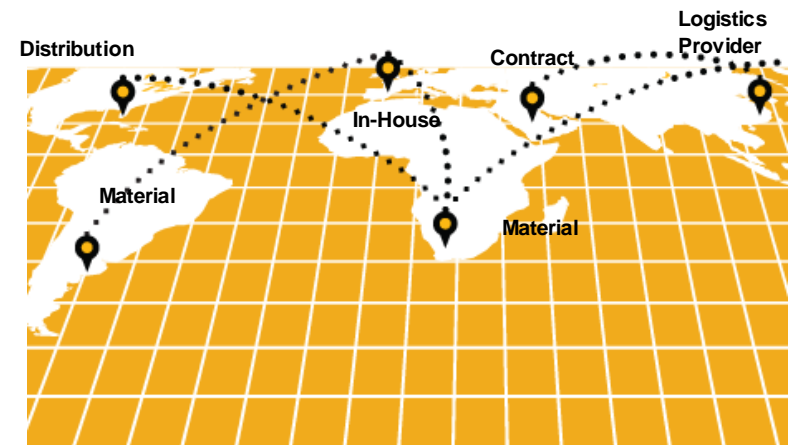
Agenda

- **SCM Strategy at a glance**
- Supply Chain Execution Platform
- SAP Transportation Management
- Selected Innovations
- Outlook

The stakes are high

Supply chains need to

- Be agile and responsive to changing customer expectations
- Quickly capitalize on trends with new products
- Enable entry to new markets
- Capture new customers before competition
- Maintain high customer loyalty



Supply chains have to be fundamentally **faster** to accommodate **“the need for speed”**

SAP Supply Chain Solution Vision

Enable Businesses to Transform their Supply Chains to Demand Networks



Supply Chain Monitoring

Ensure integrity and predict issues of the DEMAND NETWORK



Integrated Business Planning

Balance DEMAND plans with NETWORK constraints for profitability



Demand Driven Supply Networks

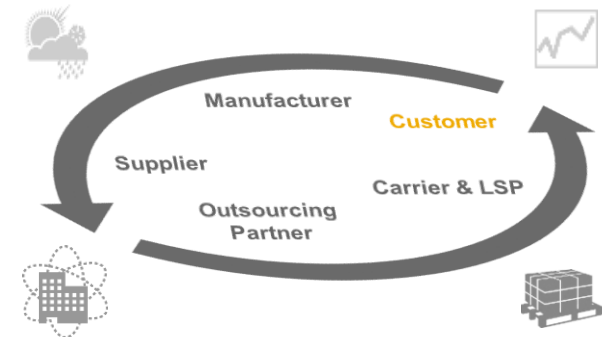
Sense & shape DEMAND and orchestrate the fulfillment NETWORK



Logistics & Order Fulfillment

The DEMAND NETWORK requires speed & efficiency in Logistics

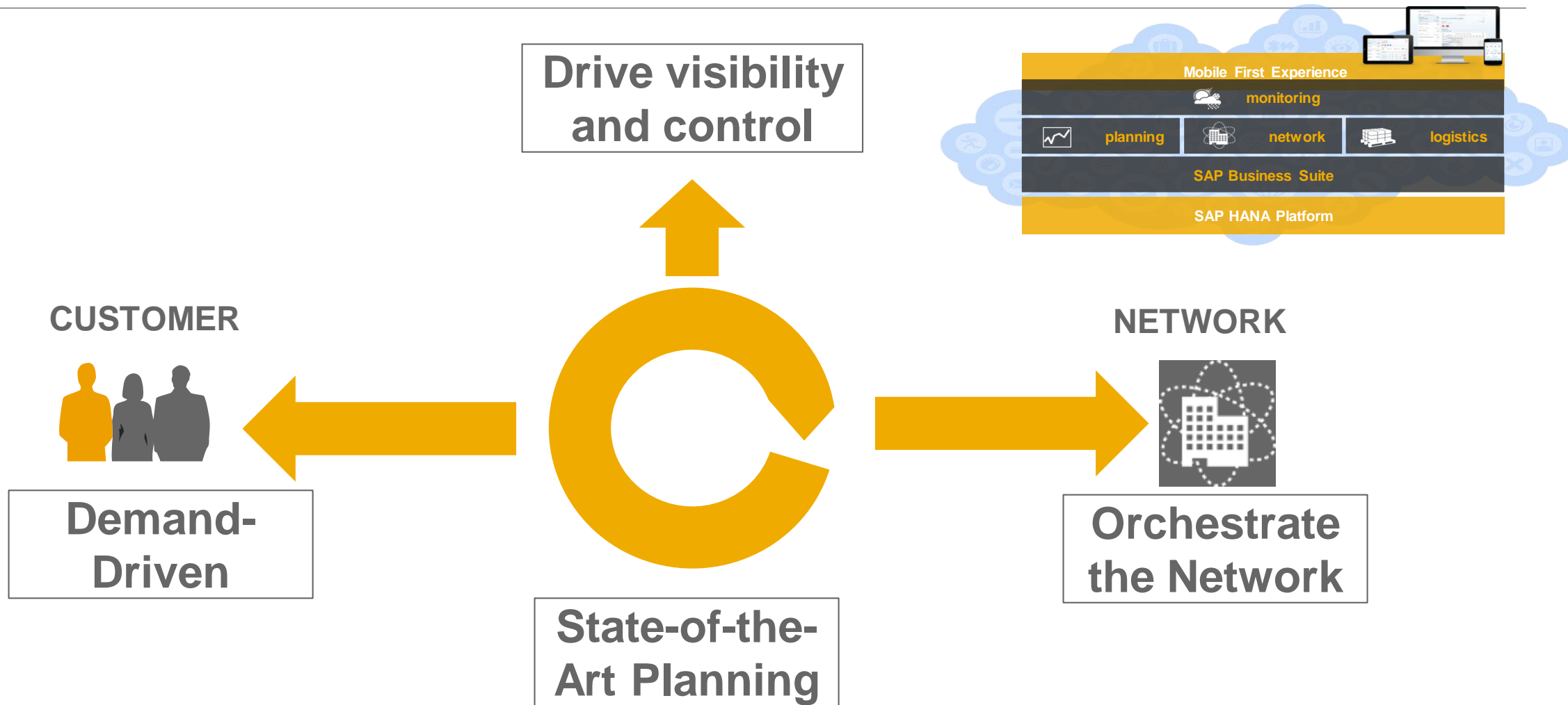
[THE DEMAND NETWORK]



Powered by **SAP HANA**

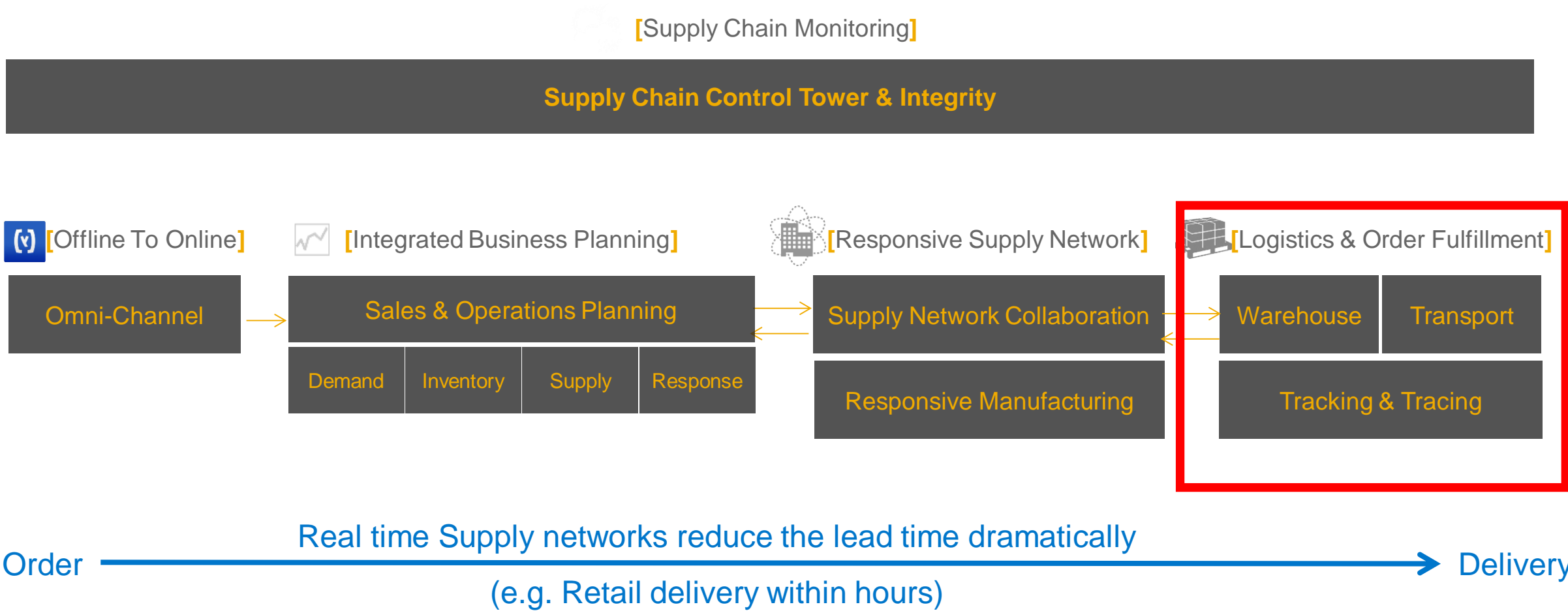
Key Strategic Moves in SAP SCM

30,000 Feet View



The Real Time Demand Driven Supply Networks

Accelerated process flow from order entry to delivery



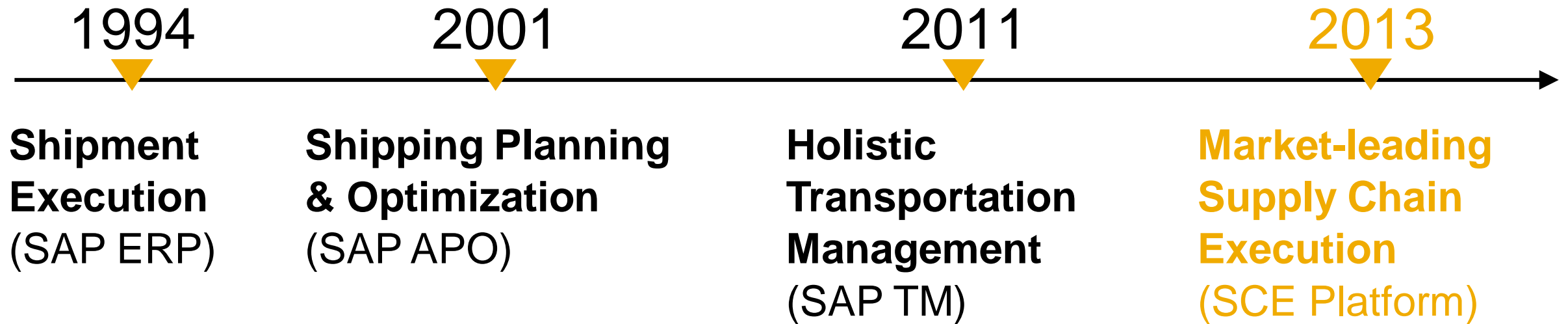


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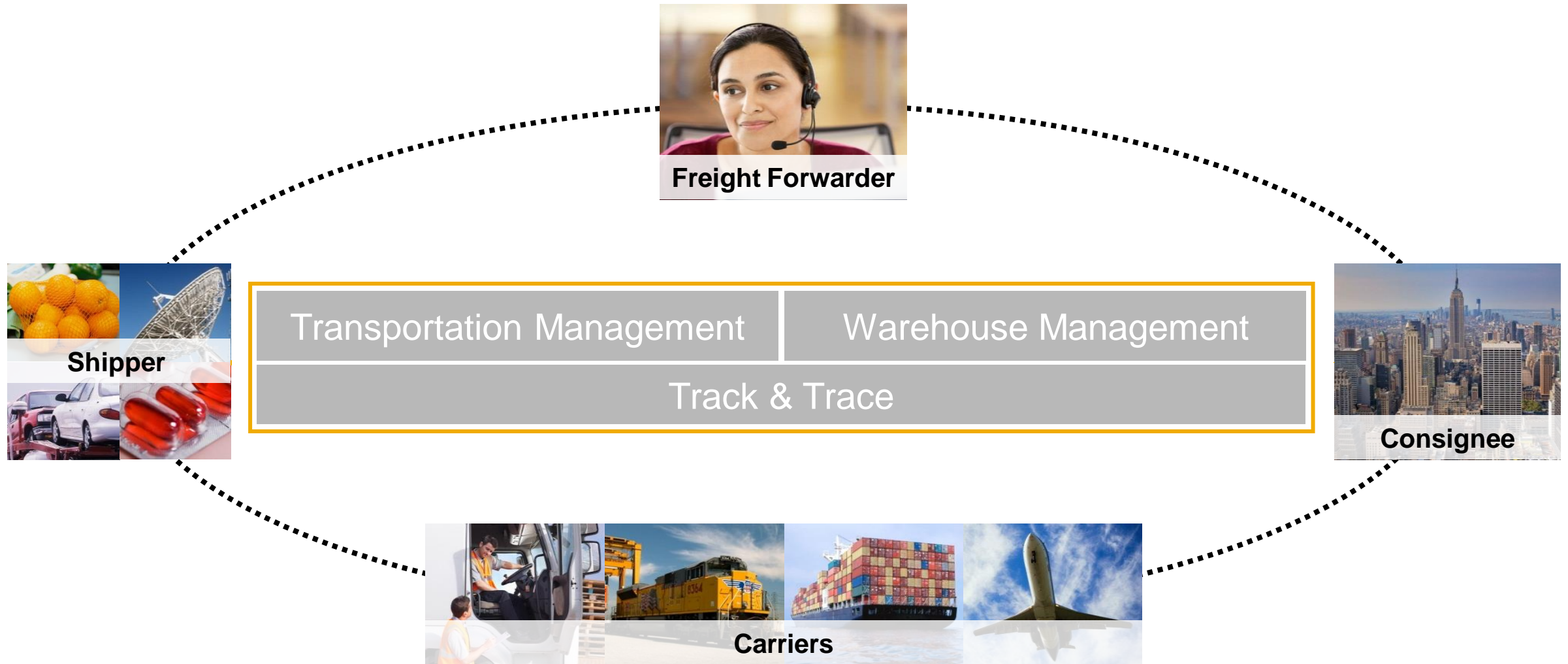
SAP Transportation Management History

A Long History of **TRANSPORTATION** Business, Process and IT **EXPERTISE**



New Generation Transportation Management

Best-in-class, integrated, connected, real-time Supply Chain Execution Platform



The New SAP Transportation Management Solution

A major, integral part of the Supply Chain Execution Platform



SUPPLY CHAIN EXECUTION PLATFORM

SAP TM

TRANSPORTATION MGMT.

Freight Order Management, Planning,
Execution & Settlement

SAP EWM

EXTENDED WAREHOUSE MGMT.

Warehouse Planning & Execution

SAP EM

EVENT MANAGEMENT

Transportation Execution Tracking & Event Management



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SAP TM Supports all Transportation Scenarios

A few examples...

Direct truck shipment

Truck networks

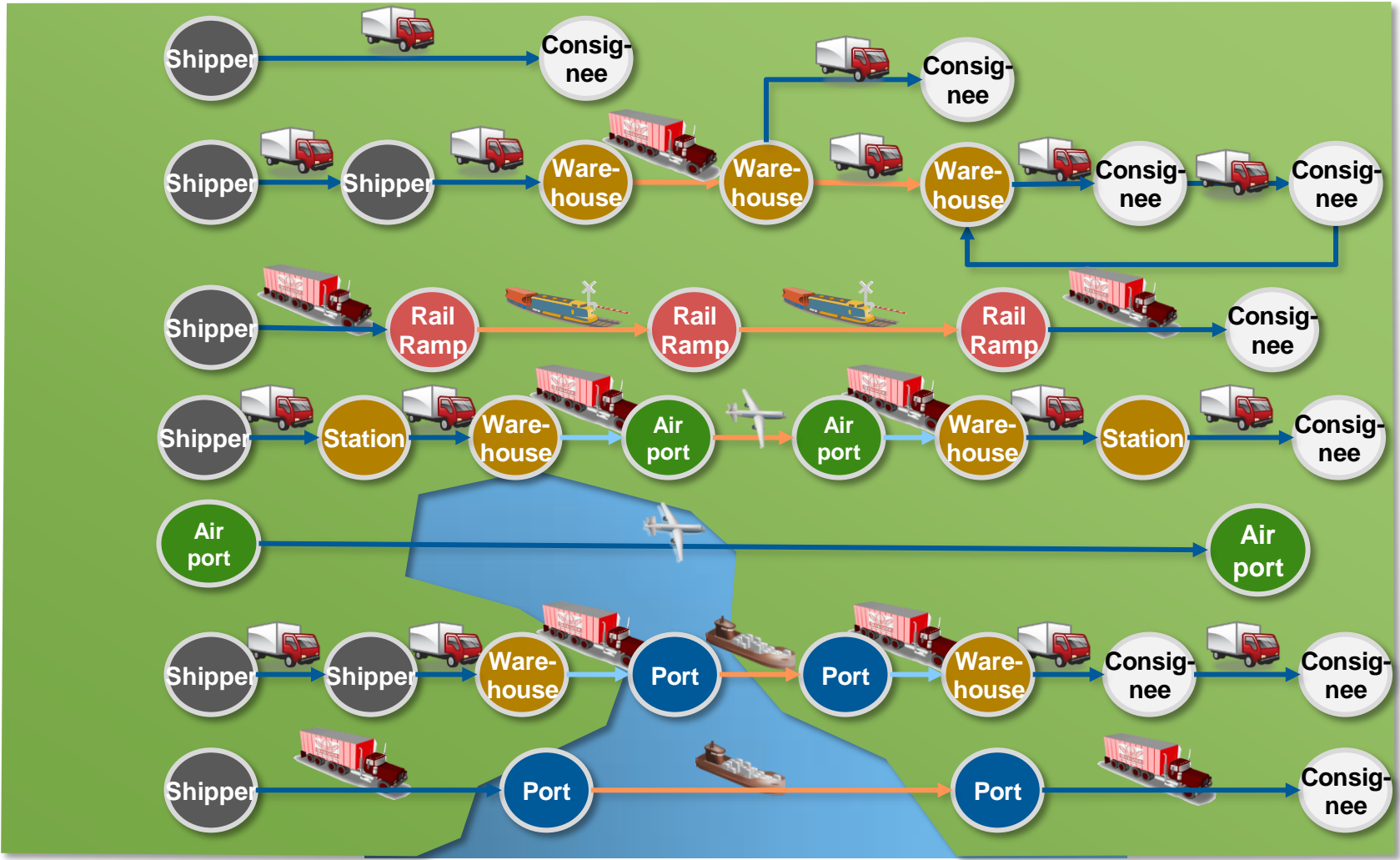
Multi-modal domestic shipment

Airfreight D2D

Airfreight shipment P2P

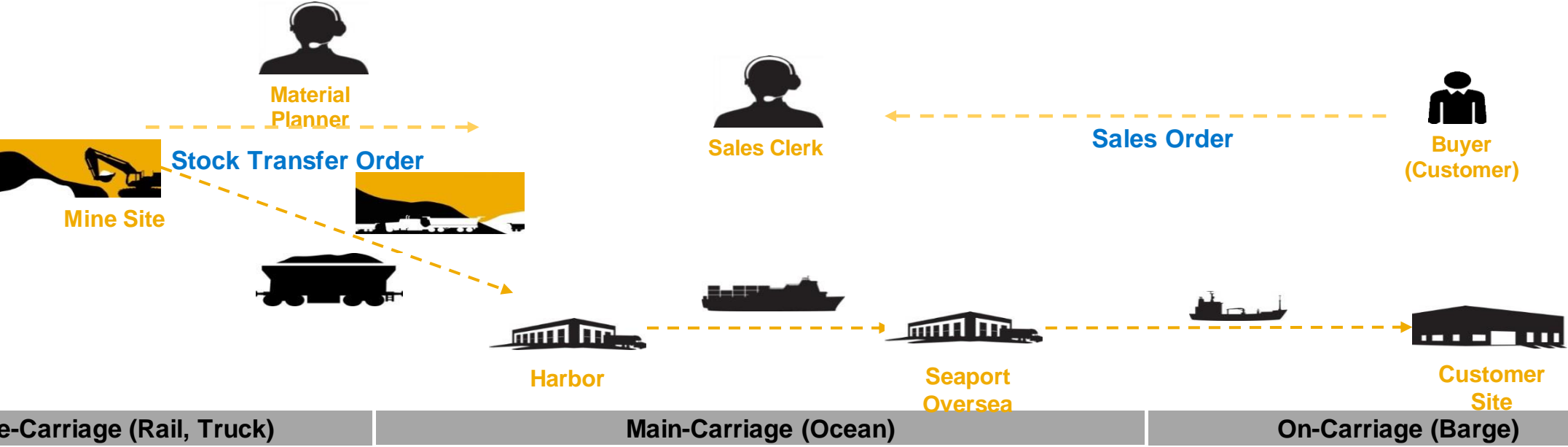
Ocean LCL shipment D2D

Ocean Bulk shipment D2D



Customer Scenario in Mining

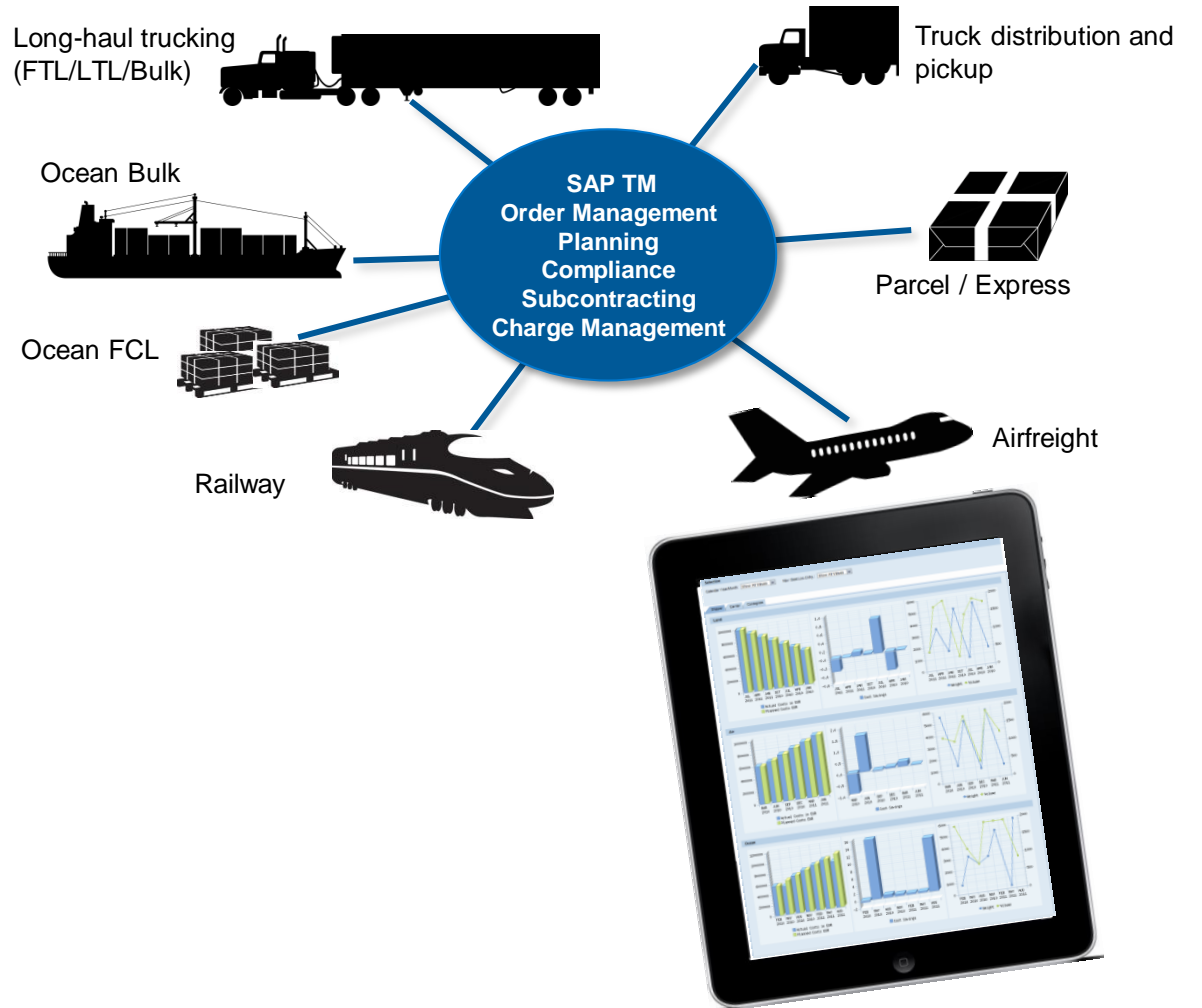
Transportation Outbound Process



Sales / Purchasing	Transport Planning	Transport Execution	Monitoring	Freight Cost Management	Reporting / KPIs
Master Data	Transportation Proposal	Time Slot Mgt.	Inbound / Outbound	Tactical Tendering	Data Consolidation
Dangerous Goods	Planning Main Carriage	Check-In	Event Handling	Charge Calculation	Data Preparation
Sales / Purchase order	Planning Pre Carriage	Yard Activities	Workflow / Status	Agreements & Tariffs	KPI Reporting
Customs / Taxes	Planning On Carriage	Check-Out	Monitoring	Cost Distribution	Transportation Cockpit
				Invoice Verification	

SAP Transportation Management

- Complete transportation management solution
- Interactive transportation and shipment planning, collaborative tendering
- Integrated logistics and fulfillment management, transportation execution visibility and monitoring
- Comprehensive freight cost management, Integrated freight and forwarding settlement



Deep, Native Integration with the SAP Business Suite

Out-of-the Box

Standard, preconfigured interfaces

End-to-End

Comprehensive procure-to-pay & order-to-cash integration

Real-Time

Synchronized processes with document flow & life-cycle mgmt.

**SAP
Business Suite**

**SAP Transportation
Management**



**Lower
TCO / TCI**



**Efficient Planning
& Order Mgmt.**



**Accurate
Visibility**

Comprehensive SAP Business Suite Integration Coverage



Sales & Procurement



- Sales order scheduling / available-to-promise
- Sales, purchase, returns & stock transfer orders



Logistics Execution



- Delivery & shipment processing
- Warehouse planning & execution (EWM)



Environment Health & Safety Management



- Compliant dangerous goods shipment



Global Trade Services



- International trade regulation compliance
- Customs export processing

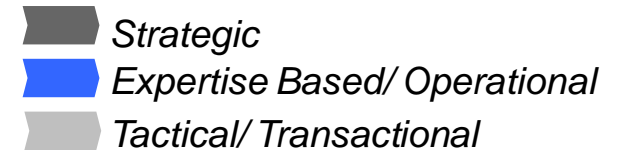


Financial Management



- Carrier invoice verific. & payment / self invoicing
- Sales order profitability & material valuation

SAP TM Overview



Transportation Sourcing

Transportation Order Management

Transportation Planning & Tendering

Transportation Execution & Visibility

Transportation Charge Management

- | | | | | |
|---|--|---|---|---|
| <ul style="list-style-type: none">○ Conduct bids for rate and capacity on trade lanes for modes & carriers○ Bid optimization○ Analyze & Forecast for better decisions○ One click contract creation | <ul style="list-style-type: none">○ Freight Demand Creation & Quotation○ Automatic Demand creation○ Improve visibility via Document Flow○ Ocean Booking | <ul style="list-style-type: none">○ Transportation Planning○ Freight Tendering○ Transportation Optimization○ Carrier Selection & Assignment○ Vehicle Routing & Scheduling○ Multi-Mode Capability | <ul style="list-style-type: none">○ Print/send transportation documents○ Automated Carrier Collaboration Portal, Web UI, E-Mail or Message○ Full Track and Trace Visibility | <ul style="list-style-type: none">○ Calculate charges○ Freight Invoicing: Customer/Supplier○ ERP Financials Integration & Settlement○ Freight Contracts Management○ Rate Sheets & Scale Tables Management |
|---|--|---|---|---|

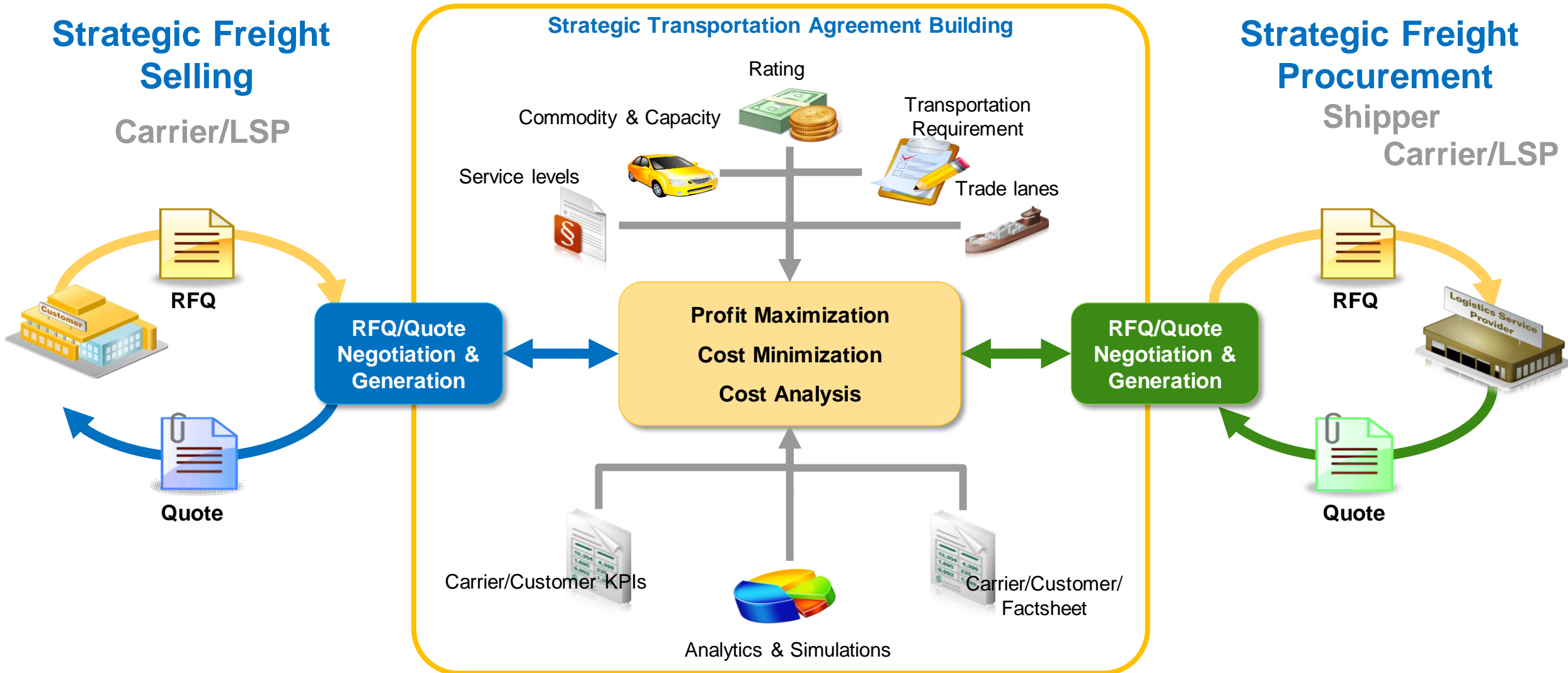


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Strategic Freight Management
T&L Collaboration Portal
Load Optimization
GANTT Chart Planning
Analytics

Strategic Freight Management



Freight Procurement Process



Shipper

Step 1: SAP BW

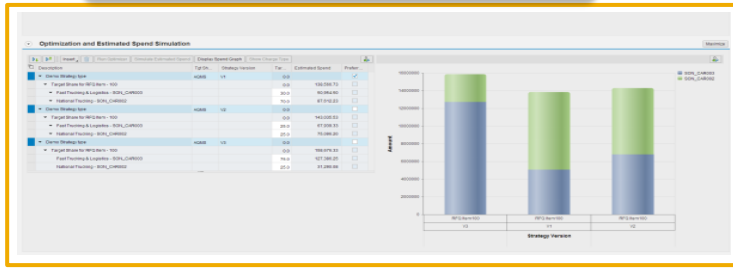
Step 2: SAP SFP RFQ Prepare



The SAP SFP RFQ Prepare screen shows a table of RFQ items with columns for Item, Description, Co., Calculation Sheet, Carrier, Shipping Type, Stage Category, Movement Type, and Status of Transp. A pie chart on the right represents the 'Historical Demand Analysis'.

Step 4: Simulate Estimated

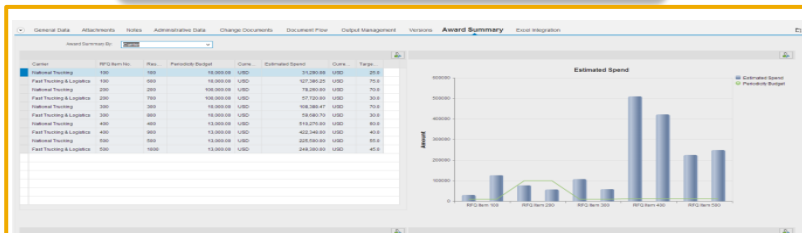
Step 3: Compare Responses



The SAP SFP RFQ Prepare screen shows a table of RFQ items and a pie chart for historical demand analysis. The table includes columns for Item, Description, Co., Calculation Sheet, Carrier, Shipping Type, Stage Category, Movement Type, and Status of Transp.

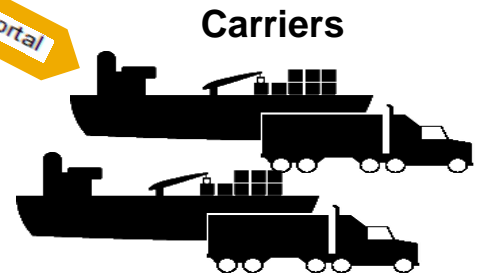
Step 5: Award Summary

Step 6: One-Click Contract Creation



The SAP SFP RFQ Prepare screen shows a table of RFQ items and a pie chart for historical demand analysis. The table includes columns for Item, Description, Co., Calculation Sheet, Carrier, Shipping Type, Stage Category, Movement Type, and Status of Transp.

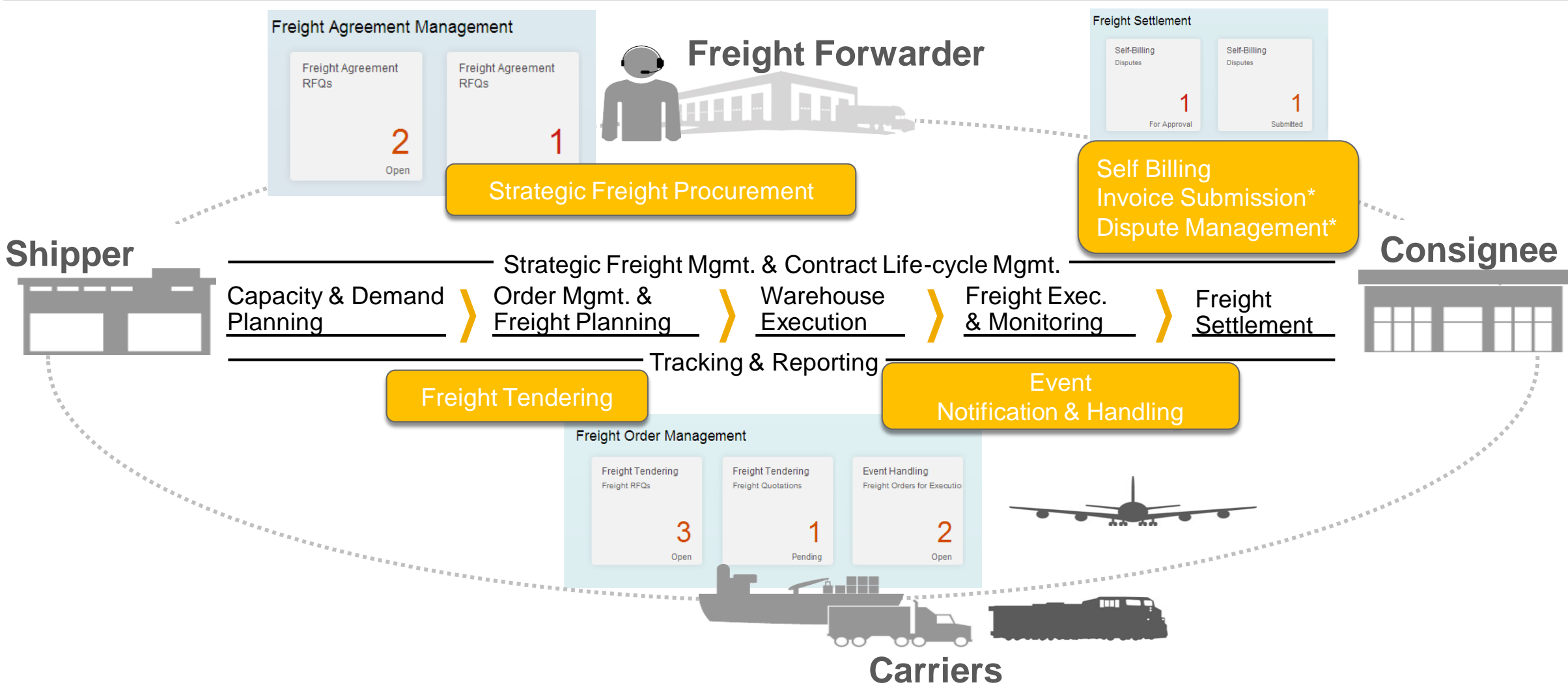
To TM Freight Order Processing






B2B /Email/Portal

B2B /Email/Portal

T&L Collaboration Portal



* Roadmap topics for future release

Accept Reject  Quick Filter: **Open** Closed All View:  Search:

	Status	Freight RFQ	Response Time	Source Location [▲]	Destination Location	Start Date/Time	Number of Stops
▶ 		64000001203	47d 9h 54m	CPM Chemicals Jacksonville Florida United States	Cemento Mejicano Monterrey Nuevo León Mexico	October 28, 2014 7:01 PM EST	2
▶ 		65000000072	9d 9h 54m	CPM Chemicals Jacksonville Florida United States	Automotive, Inc. - Warehouse 3 Toronto Ontario Canada	October 30, 2014 11:01 PM EST	2
▶		66000000098	114d 8h 34m	CPM Steel Pittsburgh Pennsylvania United States	Industrial Supplies, Inc. Minneapolis Minnesota United States	December 5, 2014 8:01 PM EST	2

Number of Documents: 3

Last Refresh: Jul 30, 2014, 2:01:10 PM

Freight Order Management

Freight Tendering

As a carrier, you can view the freight requests for quotation (RFQs) that you have received from a shipper. You can also view the freight quotations that you have submitted to your shipper for a specific freight RFQ.

If you do not make any changes, you can accept one or more freight RFQs. If you make changes, you can accept just one freight RFQ. You can reject one or more freight RFQs and provide a rejection reason. You can also view details about the tendered freight order, such as item details, location information, and business partners.

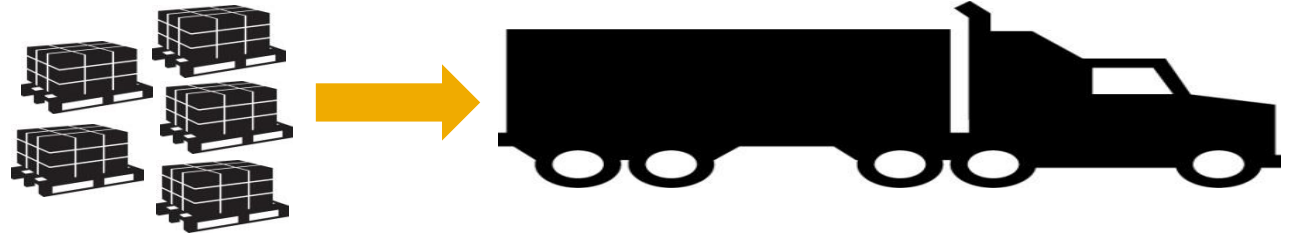
More information

[User Settings](#)[Personalization in Freight Order Management](#)[Freight Request for Quotation](#)[Freight Quotation](#)[Stop Sequence](#)[Acceptance or Rejection of a Freight RFQ](#)[Requested Dates and Acceptable Dates](#)

HELP

Load Optimization

- Loading pallets into trucks, trailers, containers
- Rules-based load optimization, considering:
 - Dimensions
 - Axle weight constraints
 - Stacking rules
 - LIFO loading
 - Etc.
- 3-d visualization of load plan



Transportation Cockpit: JG Load Plan

Save | Deselect All | Change Selection Criteria | Page Layout | Change Planning Settings

No Messages | Display Message Log

Freight Orders (5)

View: JG View | New | Remove Vehicle | Check | Fix | Unfix | Load Planning | Search:

Mode o...	Document	Status	Maximum...	Source Location	Destination Location	Departure Date	Departure Time	Depa...	Means of Trans...	Vehicle Resource	Carrier	Net Weight	Net Wei...	T
	6100008265	●	80%	TGE_FRANKFURT	TGE_HAMBURG	03.03.2014	14:34:04	CET	TGE_FTL_EU	TGE_TRUCK_EU_FT...	TGE_CARGO	13,600	TO	
	6100008559	●	81%	TGE_KARLSRUHE	TGE_BERLIN	03.03.2014	15:25:03	CET	TGE_FTL_EU	TGE_TRUCK_EU_FT...	TGE_CARGO	12,800	TO	
	6100008561	●	86%	TGE_KARLSRUHE	TGE_BERLIN	03.03.2014	15:25:03	CET	TGE_FTL_EU	TGE_TRUCK_EU_FT...	TGE_CARGO	13,600	TO	
	6100008568	●	80%	TGE_FRANKFURT	TGE_HAMBURG	03.03.2014	14:34:04	CET	TGE_FTL_EU	TGE_TRUCK_EU_FT...	TGE_CARGO	13,600	TO	
	6100008573	●	76%	TGE_FRANKFURT	TGE_HAMBURG	04.03.2014	14:34:04	CET	TGE_FTL_EU	TGE_TRUCK_EU_FT...	TGE_CARGO	12,000	TO	

Overview | Stages | Load Plan

Load Plan | Load Distribution | Statistics

View: JG View

Sequence	Freight Unit	Planned	Destination Lo...	Stack	Row	Level	Orientation	Deck
1	4100041062	●	TGE_BERLIN	0	0	0	Turned	Lower Deck
2	4100041059	●	TGE_BERLIN	0	0	1	Turned	Lower Deck
3	4100041060	●	TGE_BERLIN	1	0	0	Turned	Lower Deck
4	4100041063	●	TGE_BERLIN	1	0	1	Turned	Lower Deck
5	4100041061	●	TGE_BERLIN	0	1	0	Turned	Lower Deck
6	4100041055	●	TGE_BERLIN	0	1	1	Turned	Lower Deck
7	4100041064	●	TGE_BERLIN	1	1	0	Turned	Lower Deck
8	4100041054	●	TGE_BERLIN	1	1	1	Turned	Lower Deck
9	4100041065	●	TGE_BERLIN	0	2	0	Turned	Lower Deck
10	4100041057	●	TGE_BERLIN	0	2	1	Turned	Lower Deck
11	4100041058	●	TGE_BERLIN	1	2	0	Turned	Lower Deck
12	4100041056	●	TGE_BERLIN	1	2	1	Turned	Lower Deck
13	4100041022	●	TGE_HAMBURG	0	3	0	Turned	Lower Deck
14	4100041027	●	TGE_HAMBURG	0	3	1	Turned	Lower Deck
15	4100041019	●	TGE_HAMBURG	1	3	0	Turned	Lower Deck

A 3D visualization of a truck load plan. The truck is shown from a side-rear perspective, with its cargo area filled with a grid of colored blocks representing the load. The blocks are colored in shades of blue and green, indicating different freight units or destinations. The truck is a white cab with a black grille and a white trailer.

Example – Truck

Last-In First-Out, Colored by Destination Location

Transportation Cockpit: JG Load Plan

Save | Deselect All | Change Selection Criteria | Page Layout | Change Planning Settings

No Messages | Display Message Log

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View: JG View | New | Remove Vehicle | Check | Fix | Unfix | Load Planning | Search:

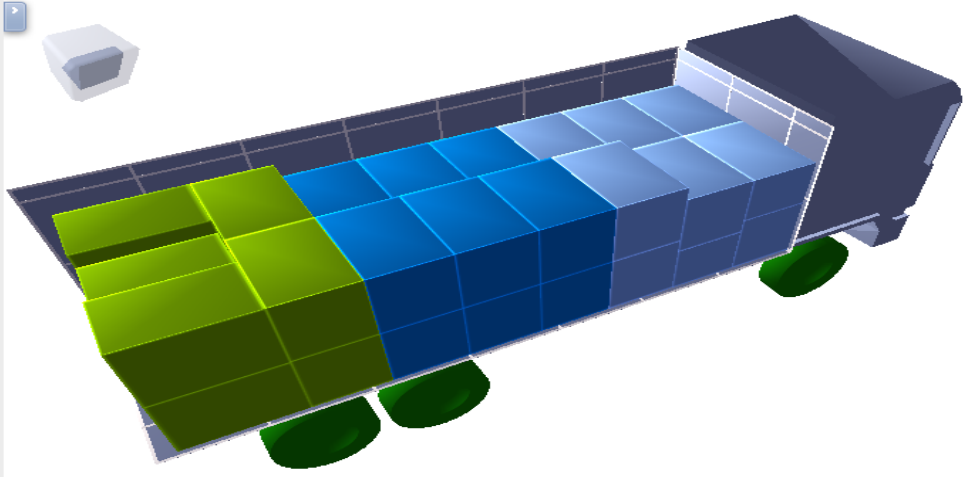
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Overview | Stages | Load Plan

Load Plan | Load Distribution | Statistics

View: JG View

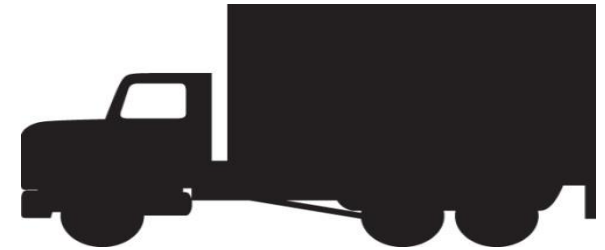
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Manual Planning with Gantt Charts

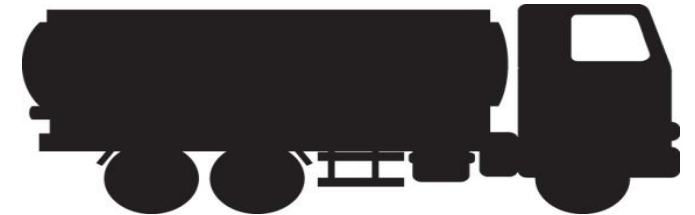
Visibility on usage and availability of your own fleet (trucks, trailers)

View the plan from time perspective in an intuitive graphical fashion



Interactive resource-based planning

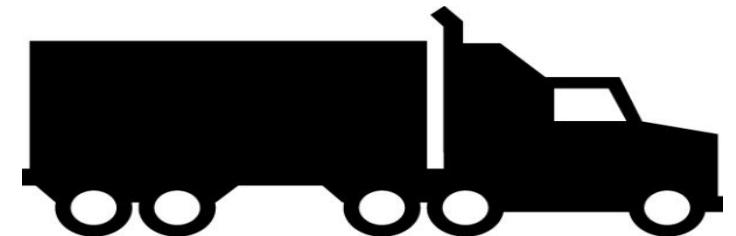
Drag and drop



Monitoring the execution of your transportation plan

Real-time planning in the cockpit

Adjust plan based on reported events



Manual Planning with Gantt Charts

Visibility, Usability & Flexibility

Visibility

Usage of trucks & trailers

Downtimes & nonworking times

Execution status & reported times for freight orders

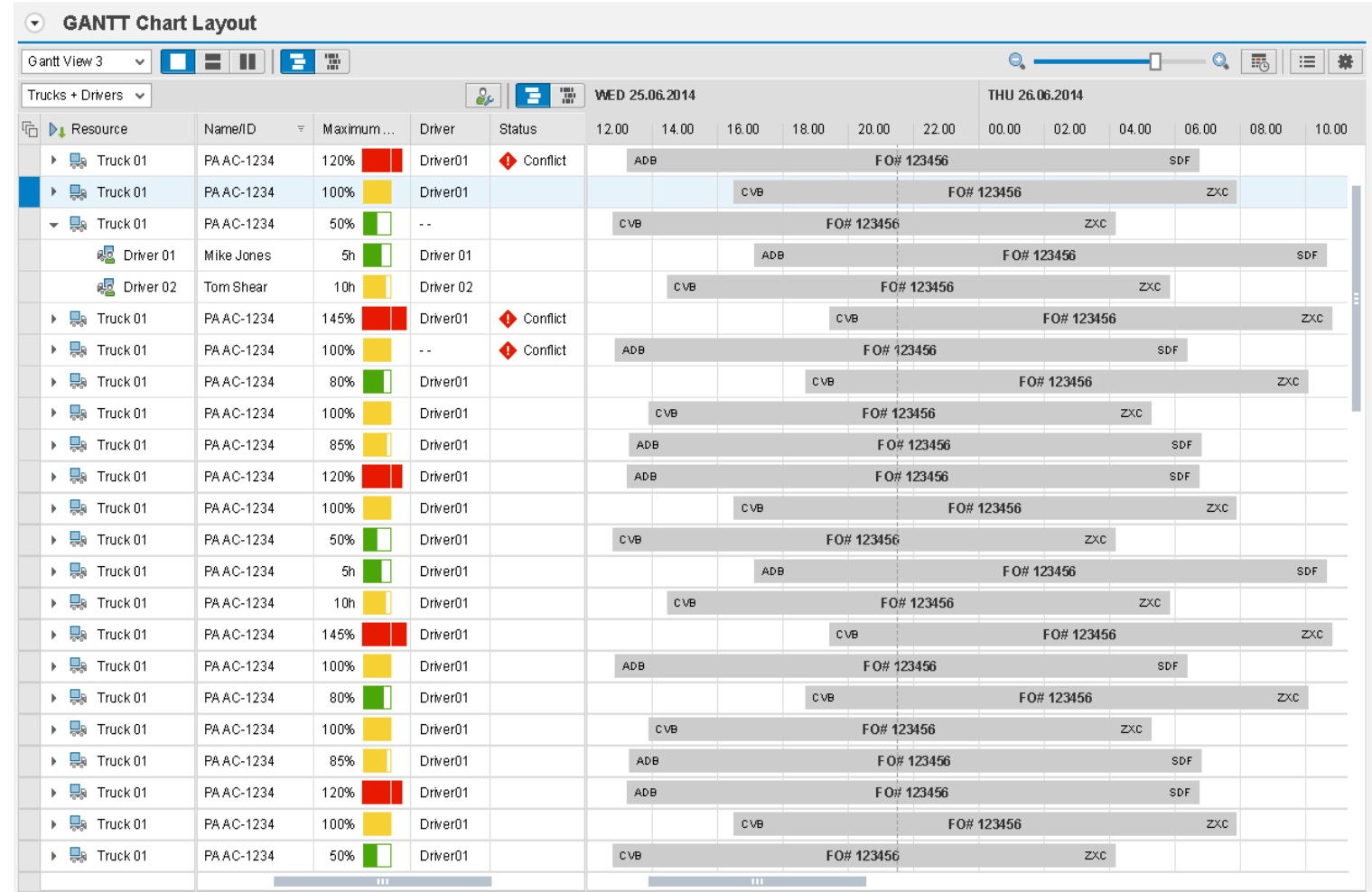
Notifications for overload, empty movements & time conflicts

Planning Scenarios

Truck planning (freight orders & truck resources)

Truck & trailer planning (trailer units & trailer resources)

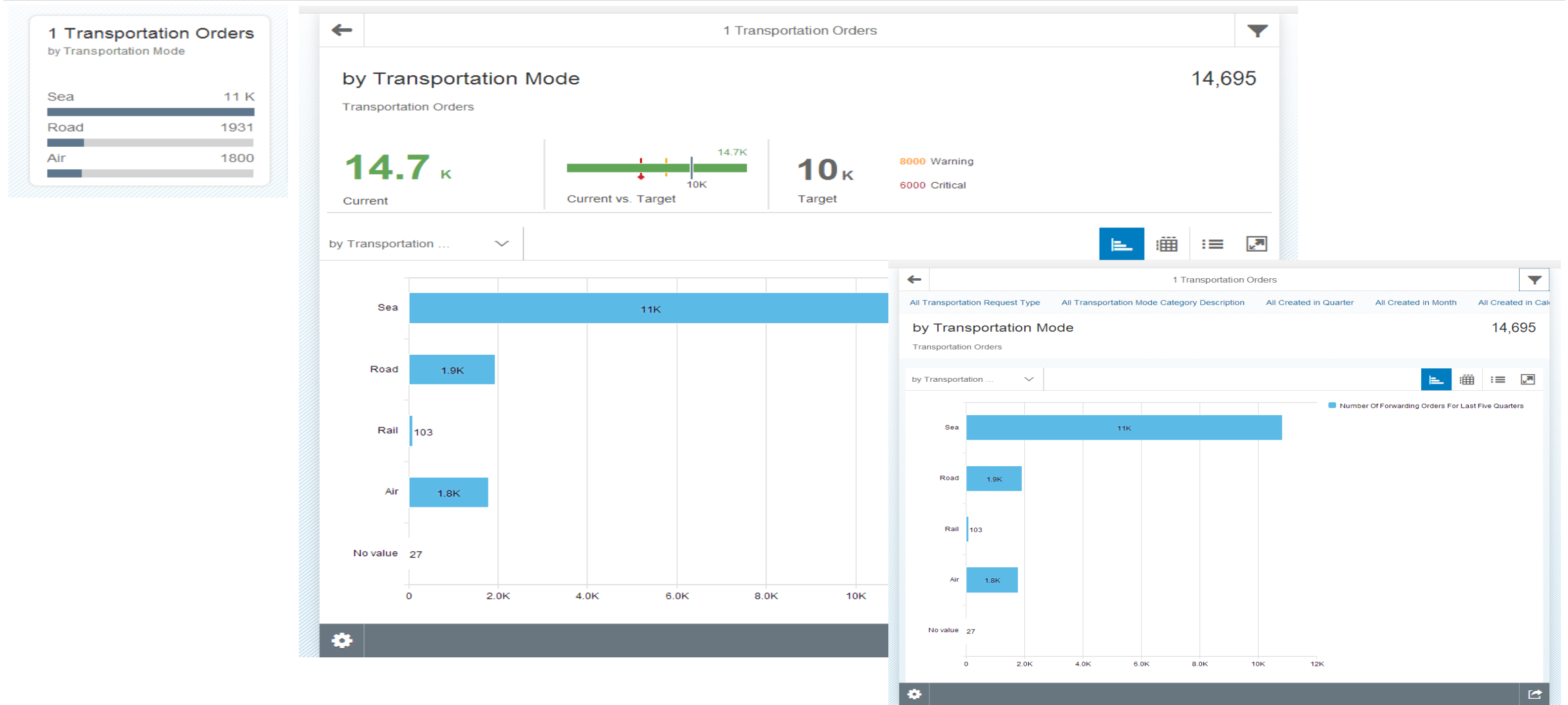
Re-planning based on events from execution



SAP Smart Business for Transportation and Logistics Overview



Analytical FIORI Apps TM – Transportation Orders





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- **Outlook**

SAP TM high level roadmap

DRAFT - Subject to change

Release	9.1 2013	9.2 2014	9.3 2015	9.x 2016	9.y 2017
	Rail Shippers	Truck for shippers	Logistics Service prov.	Ecommerce / B2C/ retail	Supply chain convergence
	<ul style="list-style-type: none"> • O2C for rail carriers & Q2P for rail shippers • Strategic freight management • T&L collaboration portal • Labor demand planning • SCE platform on HANA 	<ul style="list-style-type: none"> • Gantt chart planning • Empty Provisioning & Triangulation • Load optimization • Invoice submission & match pay via portal 	<ul style="list-style-type: none"> • Hub handling • Ocean schedules handling • Strategic freight management • Driver planning • Round offs all modes • Pallet building in load optimization • Customs & security filing • Embedded LSP 	<ul style="list-style-type: none"> • Last mile delivery • Milk run planning • Mid term, planning. • HANA profitability • Carrier business network • Mixed pallets • BRIM integration • Slot booking (DAS) 	<ul style="list-style-type: none"> • Bulk commodity enhancements (TM) • Integrated SC Planning & Exec. e.g. forecasting • Real-time strategic planning & simulation

“SAP is the **leading supplier** of TMS.
Their growth over the last year has been **astonishing**.”*

**Strong SAP
Investment**



SAP is #1 in TMS & WMS

#1 in the **overall & software** TMS market*

#1 in the **software WMS** market**

SAP is #1 in Market Growth***

26% YoY **SCE** market growth in 2012

2.7x faster than the market

2 x key peer vendors

* Transportation Management Systems - Global Market Research Study 2013; ARC Report August, 2013

** Warehouse Management Systems - Worldwide Outlook 2011-2016; ARC Report August, 2012

*** Market Share All Software Markets Worldwide, 2010-2012 – SCM Segmentation” – Gartner Report, Apr 2013



Thank you

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