NORBERT
DENTRESSANGLE ND

RFQ EM
DESCARTES RATES
QUOTATION TM TARIFFS
OPTIMIZER SCHEDULES
PI TRADE LANES
SD TRANSPORTATION COCKPIT
MM ERP FI BW
CO

ND AIR & SEA
SAP TRANSPORTATION MANAGEMENT

NORBERT DENTRESSANGLE GROUP

3 areas of expertise: Transport, Logistics and Air & Sea

€5 billion
turnover

5 continents

25 countries

43,200
employees

662 sites

10,800,000 m²
warehousing

9,650
vehicles

2013 pro forma figures, after the acquisition of Jacobson

AIR & SEA BY NORBERT DENTRESSANGLE

A significant player in the global freight forwarding market

- **€220m** pro-forma revenue
- **720** employees
- **56** offices
- **14** countries on **3** continents
- Strong position on the Americas-Europe-Asia axis and in the Russian market
- Member of WACO, ALN and EURTEAM networks

WACO

EURTEAM
Reliability Assured

Aviation Logistics Network

IATA

FIATA

AEO
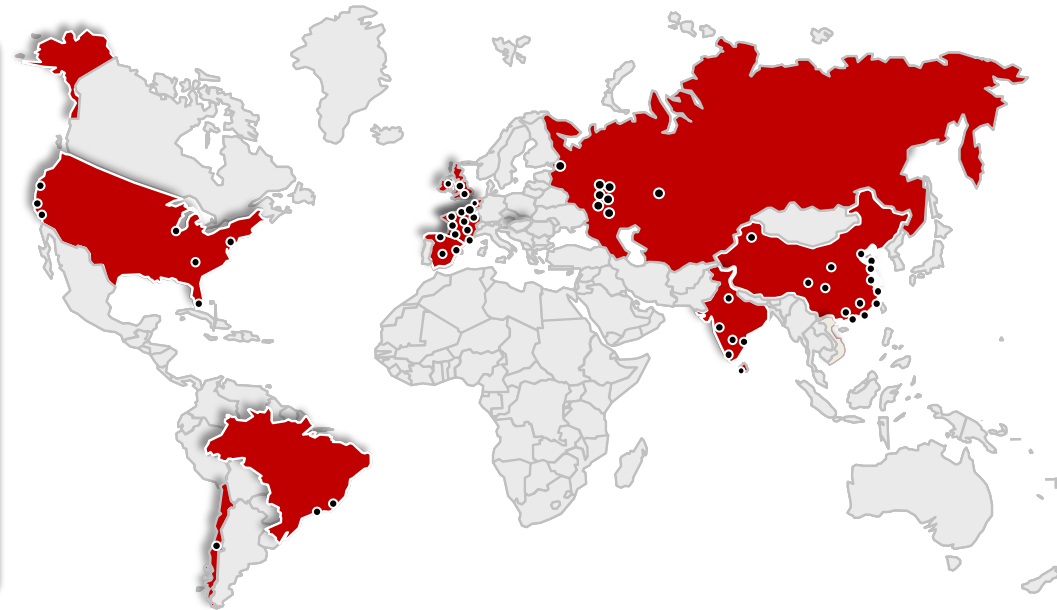
CONTEXT

Multi TMS

- ✓ Multi Database
- ✓ Several EDI Platforms
- ✓ Multi Datacenter
- ✓ Consolidation effort

- ✓ No standardization
- ✓ ERP interface for each TMS
- ✓ No customer visibility
- ✓ IT costs

STREAMLINING WITH SAP SOLUTIONS

Global Management

- ✓ Common DataBase
- ✓ Cover all compliances
- ✓ Languages & Currencies
- ✓ Operations standard
- ✓ Global Reporting & KPI's

Productivity Gain

- ✓ SAP ERP Integration
- ✓ Single input Export/Import
- ✓ End-to-End Visibility
- ✓ Planning & Optimizer
- ✓ IT Maintenance

PROJECT APPROACH

Organization

- ✓ Dedicated team
  - ▪ TM Project Manager
  - ▪ SD/MM Project Manager
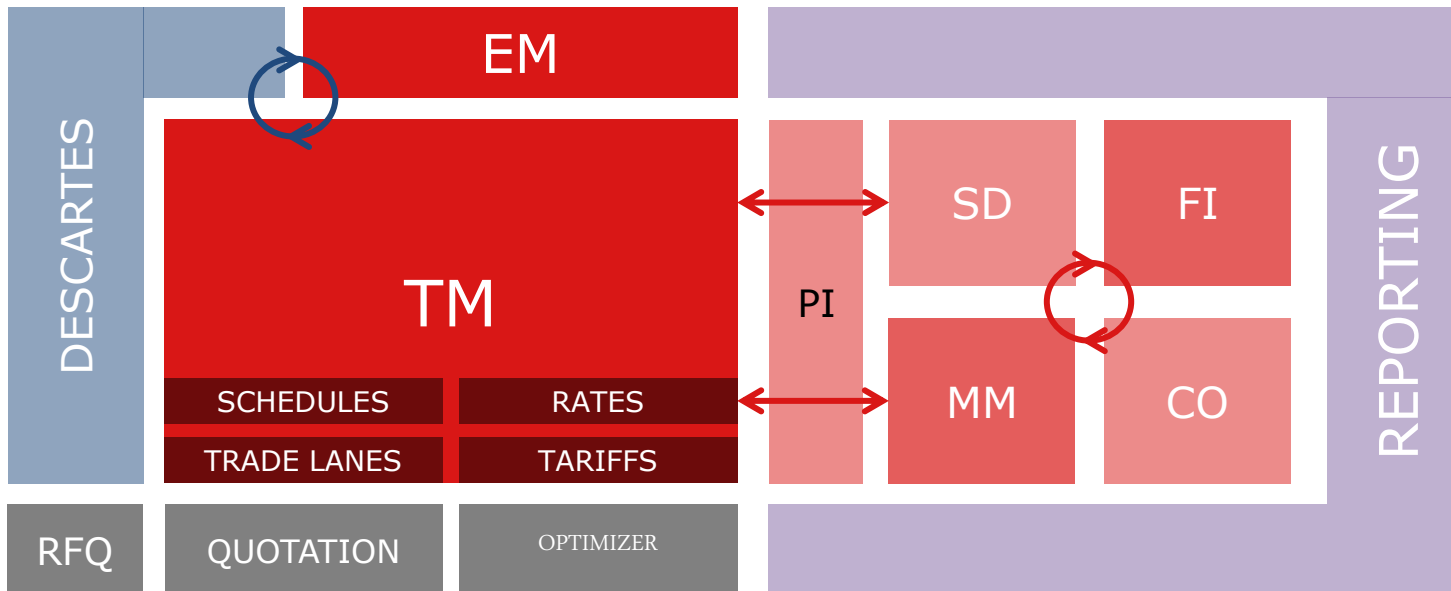 - ▪ FI/CO Project Manager
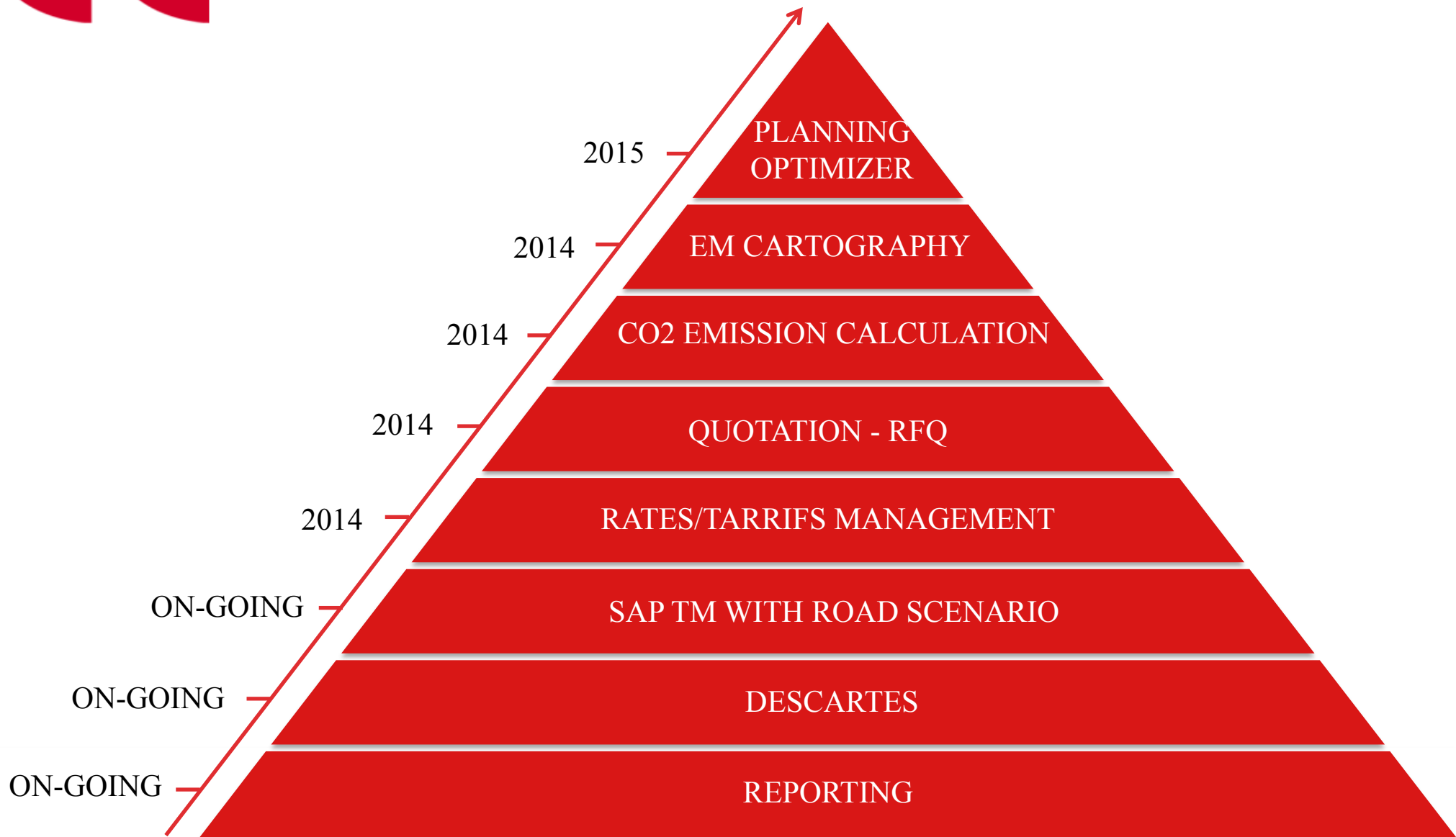
- ✓ TM/EM Consulting
  - ▪ logventus GmbH

Phases

- ✓ Phase 1: Pilot
  - ▪ Belgium
  - ▪ Basic Core-Model
  - ▪ EM & ERP Integration

- ✓ Phase 2: Roll-Out
  - ▪ NL, HK, CN, US, …
  - ▪ Phased-Development

LANDSCAPE

TIMELINE

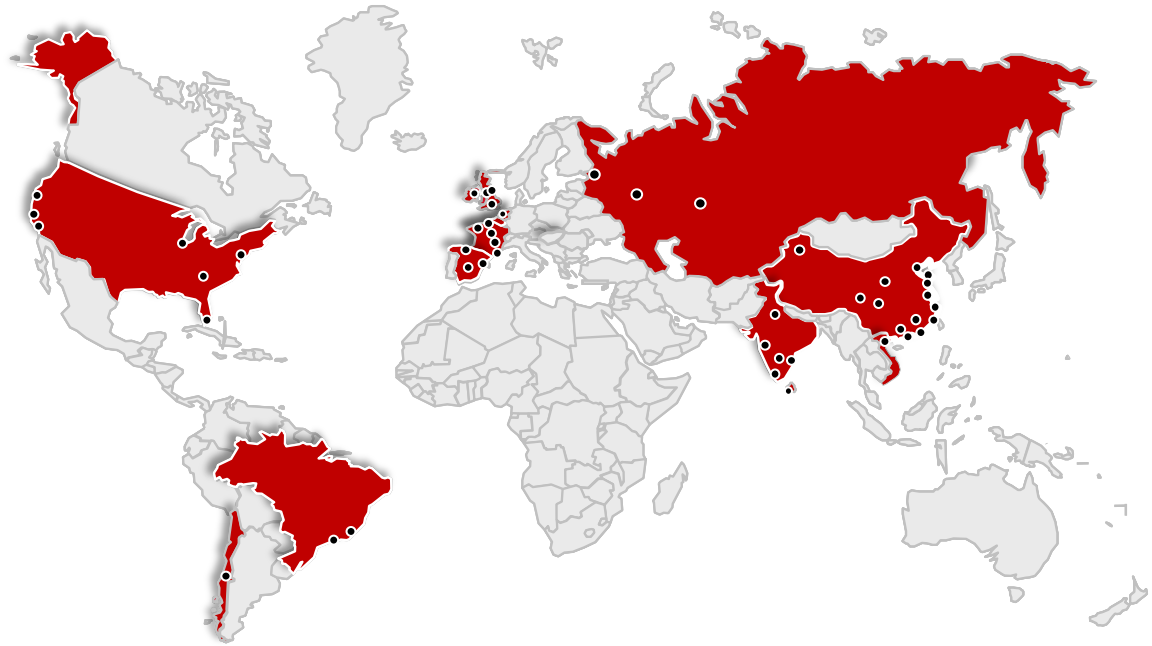|	
2015	PLANNING OPTIMIZER
2014	EM CARTOGRAPHY
2014	CO2 EMISSION CALCULATION
2014	QUOTATION - RFQ
2014	RATES/TARRIFS MANAGEMENT
ON-GOING	SAP TM WITH ROAD SCENARIO
ON-GOING	DESCARTES
ON-GOING	REPORTING

SAP TM at Norbert Dentressangle Overseas

SAP TM Approach

Michael Breusch, logventus GmbH

Nassim Teffah, Norbert Dentressangle Overseas

SAP TM at Norbert Dentressangle Overseas

- **Current Situation SAP TM 9.0**
  - Ocean Freight
  - Air Freight
  - CO_2 Calculation
  - Track & Trace
  - TM Reporting with BCV

- **Upgrade SAP TM 9.2**
  - Strategic Freight Management
  - Collaboration Portal
  - Asset Management

Door-to-door Transportation Solutions
SEA FREIGHT

- ➤ Integrated network: import & export / LCL & FCL
- ➤ Focused on key ocean trade lanes
- ➤ Consolidation centres in all major ports
- ➤ One single point of contact from collection to delivery

Door-to-door Transportation Solutions
AIR FREIGHT

- ➤ Integrated network: import & export / daily consolidation from major airports
- ➤ Focused on key air trade lanes
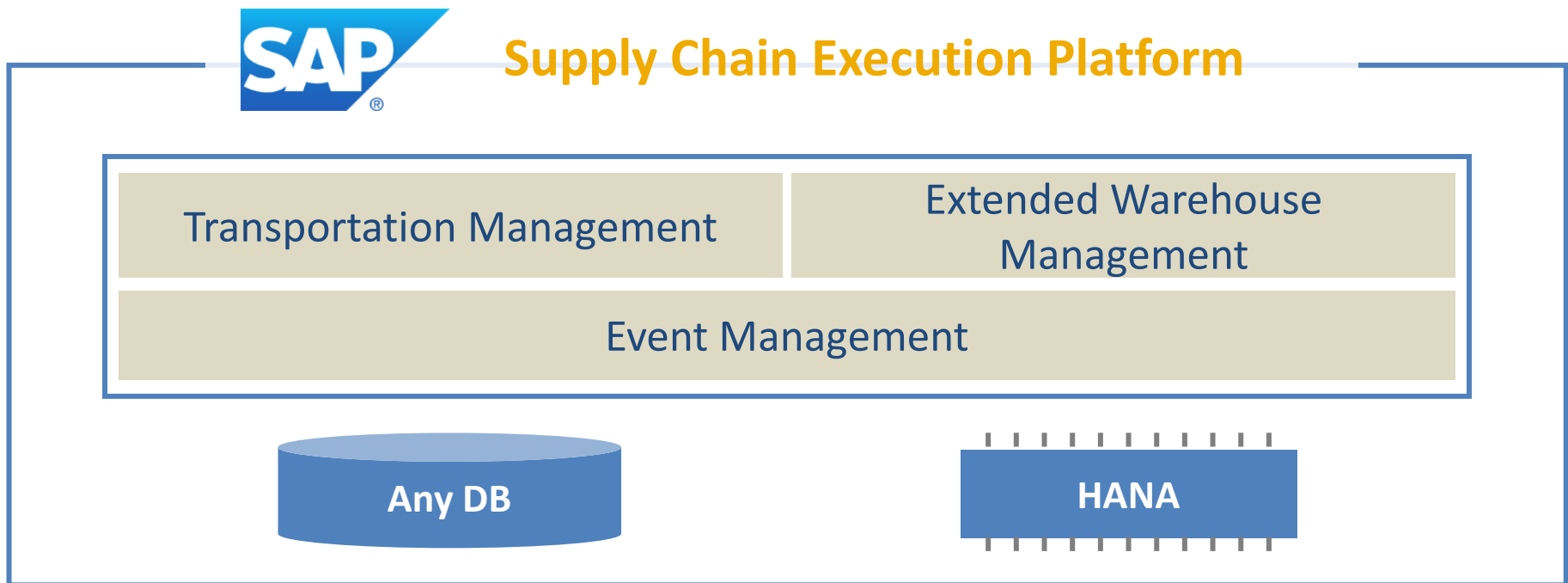- ➤ One single point of contact from collection to delivery

SAP World-Class Supply Chain Execution

Best-in-Class   Integrated   Connected   Real-Time

Supply Chain Execution Platform

Transportation Management

Extended Warehouse Management

Event Management

Any DB

HANA

SAP TM Landscape considerations

Landscape Aspects TM 9.0

- SAP TM 9.0 standard communication web services („only")
- SAP ECC counter web services are introduced with EHP 6

NDO TMS Project – Project Scope SAP TM 9.0

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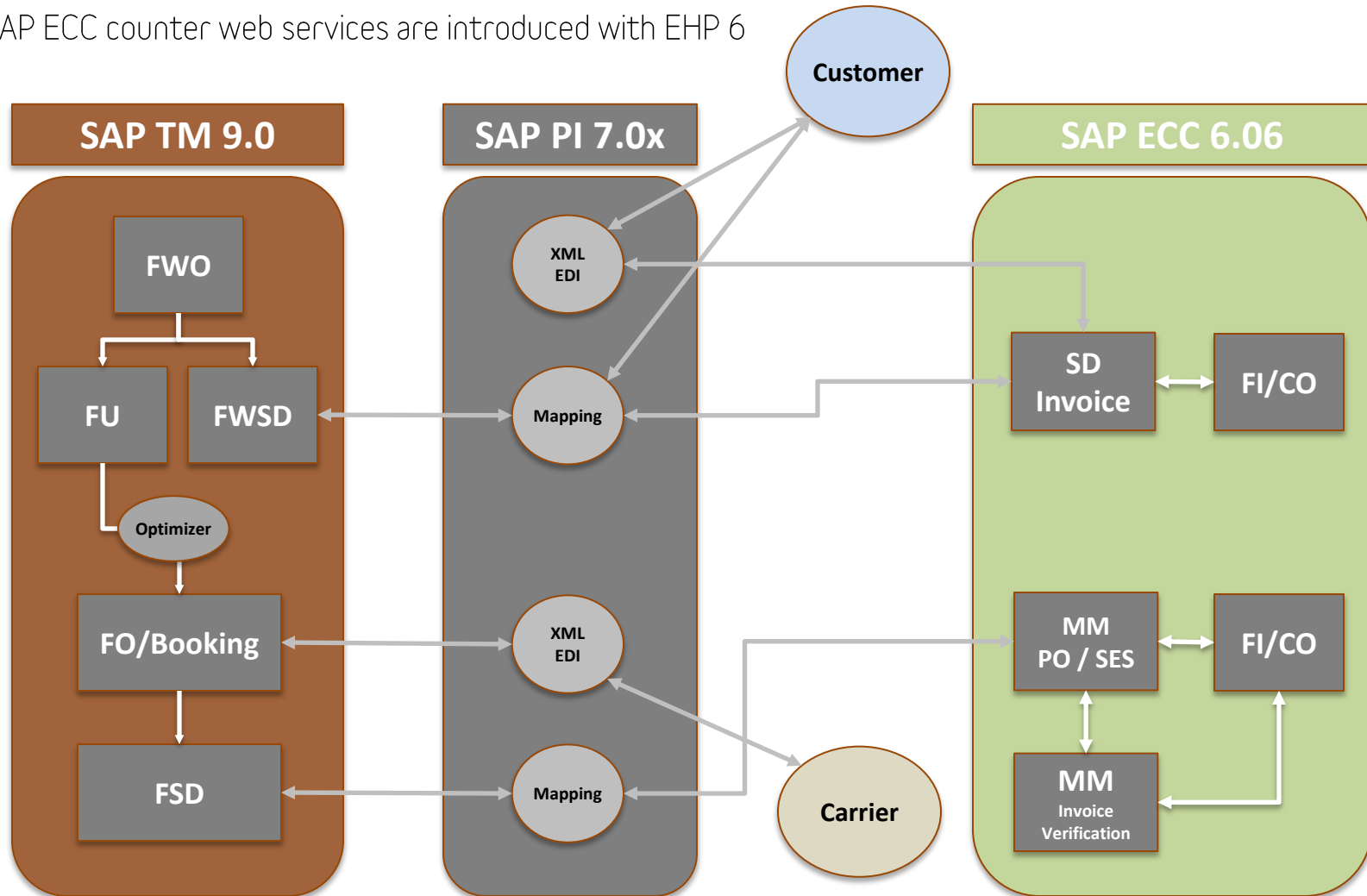
SAP ECC 6.06

- Enabling of standard ECC integration for Billing in SAP SD and FI-CO
- Enabling of standard ECC integration for Invoicing in SAP MM and Accruals in SAP FI-CO

SAP TM 9.0

- End-to-End configuration and set-up of TM standard processes for Air and Ocean Freight Import/Export
- Master Data Integration from SAP ECC 6.06
- Set-Up of geographical Master Data Network (Lanes, Zone, Locations, Business Partners)
- Load Planning and Shipment Scheduling (incl. Multi-Mode)
- Carrier Selection & Business Share Management
- Shipment Execution in SAP TM
- Printing of Shipment forms and documents
- Integration to SAP EM for tracking purposes

SAP PI

- Integration of SAP ECC and SAP TM based on standard mapping content via SAP PI
- Minor enhancement of standard mapping content with additional fields (TBD), not structure of interfaces (hierarchy)

EDI Mapping

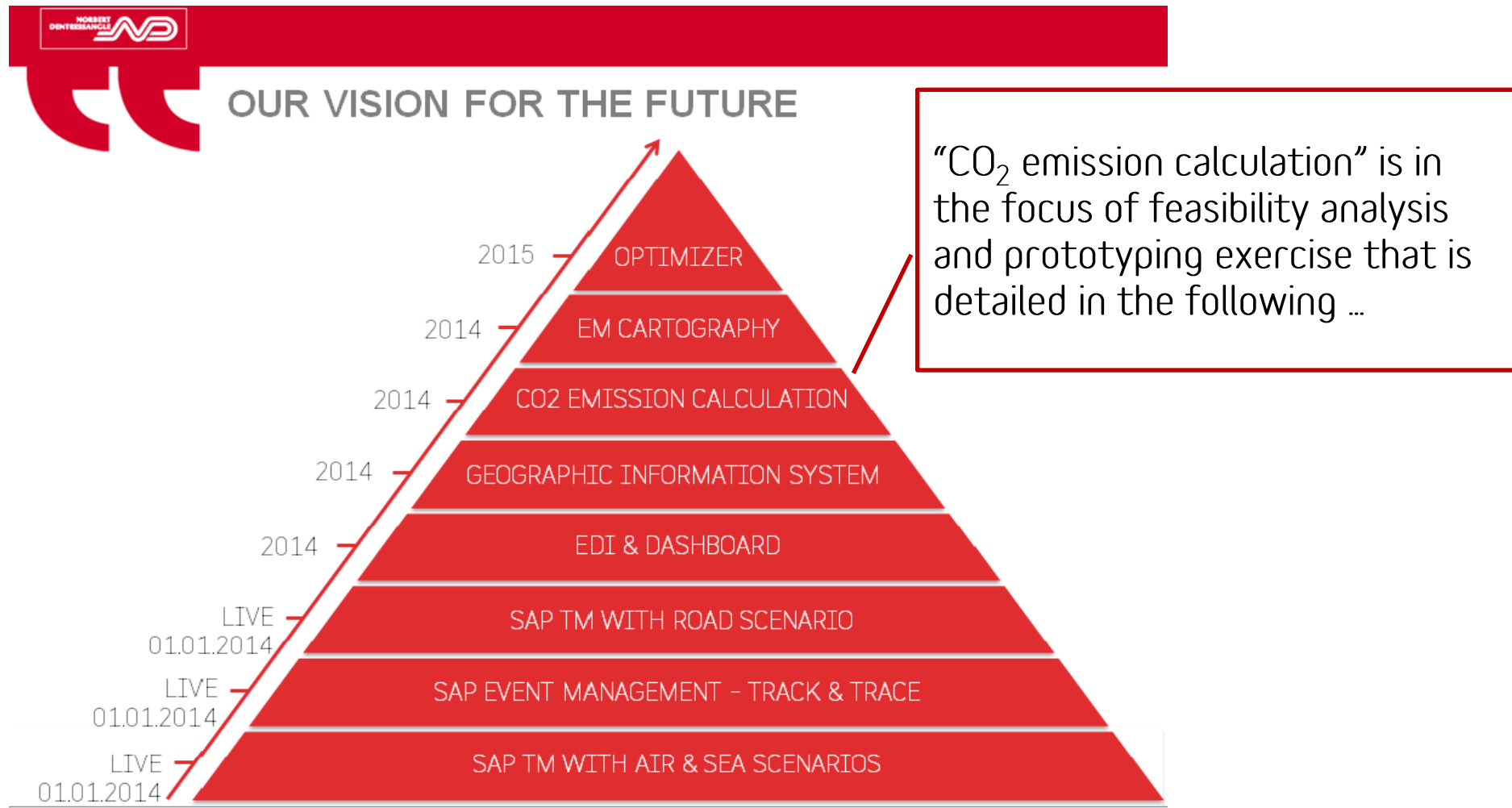- Mapping take place via SAP PI

SAP Business Warehouse

- Reporting within TM based on SAP BCV

SAP Event Management

- Enabling of transportation tracking scenarios based on standard TM-EM 9.0 visibility connectors
- Enabling of customer and carrier access for manual status display, update

CO$_2$ Emission Calculation at NDO

Norbert Dentressangle's vision is reflecting the legal requirements

OUR VISION FOR THE FUTURE

Year	Level
2015	OPTIMIZER
2014	EM CARTOGRAPHY
2014	CO2 EMISSION CALCULATION
2014	GEOGRAPHIC INFORMATION SYSTEM
2014	EDI & DASHBOARD
LIVE 01.01.2014	SAP TM WITH ROAD SCENARIO
LIVE 01.01.2014	SAP EVENT MANAGEMENT – TRACK & TRACE
LIVE 01.01.2014	SAP TM WITH AIR & SEA SCENARIOS

"CO$_2$ emission calculation" is in the focus of feasibility analysis and prototyping exercise that is detailed in the following …

CO_2 Calculation with SAP TM

Since **1st October 2013** French logistics service providers are obliged to determine and disclose CO_2 information for transport services due to **article L. 1431-3 of the French transport code**. The CO_2-information has to be shown at customer quotations and customer invoices.

Today, this CO_2-information calculation is done with third **party systems or web services** outside the transportation planning system (SAP TM). This requires **additional interfaces** to those CO_2-information service providers and **additional fees** for the calculation service.

The consulting solution of logventus GmbH offers the CO_2-information calculation **within SAP TM** using the existing master data and transportation planning data **without any additional interfaces and volume fees**. The CO_2-information will be calculated and stored inside the SAP TM system. Then it can be displayed in the quotation and invoice. Beyond this, the CO_2-information can also be used for post-analytics.

Legal Requirements

French logistics service providers are obliged to determine and disclose CO_2 information for transport services due to:

- Grenelle de l´Environnement - Its compulsory application was integrated into article L. 1431-3 of the French transport code -

- French decree No. 2011-1336 of 24 October 2011, specifies the terms and conditions for the implementation of article L. 1431-3 of the French transport code

- Since 1st of October 2013 the CO_2 information disclosure requirements became mandatory for shipments which depart from or arrive at France

French legislation requires LSPs to report more accurately, leveraging carrier specific data, starting 2016

Ex-Ante and Ex-Post CO_2 Emission

Article L. 1431-3 allows flexible arrangements for providing CO_2 emission data:

- Before planning (before means of transport is assigned)
  - Ex-ante CO_2 emission estimated

7,5t   **12t**   **26t**   **40t**

- After planning (before transport has been executed)
  - Ex-post CO_2 emission estimated

12t   **?**

- After execution
  - Ex-post CO_2 emission estimated or
  - Ex-post CO_2 emission measured

➡ 2 CO_2 emission values should be calculated: Ex-ante and ex-post CO_2 emission

Track & Trace at NDO

FREIGHT UNIT

Scheduled	Loading Begin	Loading End	Departure	Arrival	Unloading Begin	Unloading End	....	Damage	....	Arrival	Unloading Begin	Unloading End
1	2	3	4	5	6	7		8		9	10	11

FREIGHT ORDER, BOOKING ORDER

Loading Begin	Loading End	Proof of Pickup	Departure	Clear Customs	Arrival	....	Delay	....	Unloading End	Proof of Delivery
1	2	3	4	5	6		7		8	9

Legend: ◆ = expected event   ◆ = unexpected event

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SAP TM Reporting with BCV

SAP TM at Norbert Dentressangle Overseas

- **Current Situation SAP TM 9.0**
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  - Strategic Freight Management
  - Collaboration Portal
  - Asset Management

SAP TM General enhancements

Strategic Freight Management

- Strategic Freight Procurement (buying)
- Quote-to-Contract (selling)

Collaboration Portal

- Main coverage
  - Web portal for business partner collaboration on transportation and logistics processes / documents
- Role-specific views
  - Vendors, consignees, carriers and logistic service provider
- Collaboration support
  - Document access, review, planning and processing

Asset Management

- Tank Container

SAP TM General enhancements

Planning

- Visibility on direct shipment costs versus consolidation costs
- Incremental planning (allow additional freight and additional stops on FOR´s in execution and planning in FOR´s in tendering)
- Automatic trailer planning (drop & hook and swap)
- Buyer´s / Shipper´s consolidation

Charge Calculation

- Route based settlement
- Flexible invoicing
- Air freight specific enhancements

SAP TM Industries related enhancements

Ocean Freight:

- TM 9.1 supports bulk ocean freight scenarios with multiple pick-up and/or delivery locations
- Change port sequence on the ocean booking
- The lay days at every port can be maintained on the Freight Bookings

Air Freight:

- Capacity Management – new functionalities for uploading carrier flight schedules
- Connections flight creation with following sub-topics:
  - Location free text search
  - Usage of master light schedule
  - Information of length of stay for connection flight
  - Generate flight or specific time period
  - Creation of allocation
  - Visibility of connection flight information in Freight Booking
- Schedule Delta Handling and new Referenced Data Status field
  - Changes in air freight carrier schedules are reflected in already existing SAP TM schedules, allocations and freight bookings

SAP TM Integration related enhancements

EH&S – Integration (Dangerous Goods)

- 1000 Points Rule

GTS – Integration (Customs & Compliance)

- Customs Management
  - Customs processing
  - Transit procedures
  - Trade document printing
  - Customs communications
- SAP Compliance Management
  - Sanctioned legal control
  - Export legal control
  - Import legal control
  - Import declaration (SAP TM 9.1)
  - Quote-to-Contract (SAP TM 9.1)
- SAP Risk Management
  - Restriction handling
  - Preference processing

SAP Transportation Management
Integrated Freight Forwarder

Freight forwarding

Norbert Dentressangle Overseas is a provider of forwarding services, specialized in intercontinental air and ocean freight and associating supply chain management solutions.

Headquarters: Lyon, France
Industry: Transport and Logistics
Products and services: Global Freight Forwarding services
Revenue: €144M in Freight forwarding (€4 billion Norbert Dentressangle Group)
Employees: 900 in Freight forwarding (37.500 Norbert Dentressangle Group)
Web site: www.norbert-dentressangle.com

Live locations – Air & Sea Freight

Belgium since 01.01.2014 / Hong Kong since 01.07. 2014

Implementation 2014

Sea Freight : Ireland – NL – UK – US

Air Freight : Ireland – NL – UK – US -

Future roll-out plans

- Combined Air / Sea Freight solution globally over 14+ Countries

Implementation Partner: logventus GmbH

Business Challenges/Drivers:
- Replace existing legacy applications
- Standardization / Harmonization of business processes
- Reduction of manual work

Project Scope:
- TM 9.0 : Air & Ocean FCL/LCL Export and Import

Key figures:
- ~ 5 (Belgium), 900 users finally
- 200 forwarding orders per month
- 200 settlement documents per month
- 50 booking orders per month
- 100 freight orders per month

Key Highlights: Why SAP?
- Integrated end-to-end solution
- Unified ocean and air TMS platform

Benefits realized:
- Streamlined & standardized processes, Enhanced operational system functionality
- Automation or reduction of manual steps, Enhanced coordination of shipment processing
- Reduction of e-mails and calls
- Provide all needed and transport related information and print out documents

Installations:
- ECC 6.0, TM 9.0. Go-live Belgium 01.01.2014 [Sea & Air] Role-Out 2014+

Contact data: Michael Breusch (m.breusch@logventus.com), Managing Director

Reference Status: Official SAP TM Reference

Fact sheet:
TM customer Norbert Dentressangle Overseas

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Customer information

Customer	Norbert Dentressangle Overseas (NDO)
Industry	Transport & Logistics
Customer description	Norbert Dentressangle Overseas (part of Norbert Dentressangle Group, global provider of supply chain services & solutions) is a provider of global forwarding services, specialized in intercontinental air and ocean freight.

Project information

Implementation partner	logventus GmbH
Project scope	• Export, Transit and Import Processing for Ocean (FCL/LCL) and Air Transportation on SAP TM 9.0
Key figures	• ~ 5 (Belgium), 800 users finally • 150 forwarding orders per month • 150 settlement documents per month • 100 booking orders per month • 120 freight orders per month
Contact data	Michael Breusch (m.breusch@logventus.com), Managing Director
Reference status	Official Reference

Highlights / content

- **Project Start : 01.05.2013**
- **Go-Live: 02.01.2014**

Main Scenarios
- TM 9.0 : Supporting both Ocean, and Air Transportation processes.

Order Management
- Registering customer orders into TM forwarding orders
- FCL, LCL, (H)AWB are registered

Manual planning
- Used for FCL/LCL and Air for consolidated pickup, delivery and building of containers and ULDs

Invoicing
- Regular customer invoice (done by SD)
- Regular supplier invoicing with invoice verification (done by MM)
- Integration into ERP finance (FI/CO)

Others
- Ability to initiate workflows based on status
- Standardized master data

Process integration
- Integration to SAP ERP using PI
- Integration to external platform like DESCARTES

NORBERT DENTRESSANGLE

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Thank you

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