Optimising the supply chain using standards in data exchange

StocExpo, Rotterdam, March 18th, 2015
Thomas Kockisch (BP) & Dimitris Pagonis (Implico Group)
Speakers

Thomas Kockisch
Global Functional Architect Logistics
FVC Rhine Global SAP Deployment

Dimitris Pagonis
International Senior Sales Manager
Oil & Gas
Agenda

- Company Profiles
- Industry Challenges
- Sharing the Rhine Project Experiences
BP

At a Glance

- BP Group employs 85,000 people in 80 countries

- With a turnover of more than € 51 billion in 2013 BP ranks among the leading companies in Germany
  - Every day the company provides several million customers with its products and services marketed under the BP, Aral and Castrol brands in Germany

- The former oil company has developed into an innovative supplier of cutting-edge fuels and biofuels, of lubricants, gas and petrochemical products
Implico at a Glance

- Company Foundation: 1983
- Industry: International consulting and software company
- Focus: Best-in-class IT technologies and end-to-end software solutions for storage, planning and distribution
- Employees: Approx. 200

Locations
- Germany Hamburg (Headquarters)
- Malaysia Kuala Lumpur
- Romania Bucharest
- Switzerland Biel
- USA Philadelphia
Agenda

- Company Profiles
- **Industry Challenges**
- Sharing the Rhine Project Experiences
Industry Challenges

Business drivers

- **Diversification of Landscape**
  - Changing landscape in downstream business with more players with different business models operating in the market
  - Increased demand for communication

- **Data Quality**
  - Minimise processing errors and error handling

- **Control**
  - Credit control
  - Product / Allocation control
  - Driver / Execution control

- **Data Availability / Timing**
  - View on stock / supply
  - Processing of business documents
Industry Challenges

Business drivers

- **Business flexibility**
  - Choice of supply location
  - New business relations and authorisation to load
  - Cross-border operations

- **Legal / Fiscal requirements**
  - EMCS
  - ATLAS

- **Process Quality and Efficiency**
  - Higher degree of automation in Loading locations as well as on ERP level
  - Closer to real-time operation
  - Vehicles spent shorter time in terminal
  - Operational safety / HSSE

- **Maintainability and TCO**
  - Harmonised solution for communication (specification, build, support, scalability)
  - Integrated with harmonised (internal) business processes
Industry Challenges

Standards and protocols

- Mainly national, company-defined or point-to-point standards
- Mainly only after-the-fact results supported
- Usually low frequency of data exchange between oil companies or suppliers
- Unavailability of process / transaction identifiers
- Different message layouts and content
- Different transmission technology
Industry Challenges
Standards and protocols

Clear Need: Use of Global Standard protocols

- BP and other oil Majors, Implico and many Software suppliers across the Globe contributed heavily on developing Global standards through the PIDX platform

- We are not finished yet but we are progressing fast
Agenda

- Company Profiles
- Industry Challenges
- Sharing the Rhine Project Experiences
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Participation in iFLEXX community and implementation of iFLEXX</td>
</tr>
<tr>
<td>2010</td>
<td>Start of BP’s Terminal Communication Project</td>
</tr>
<tr>
<td>2011</td>
<td>Active Engagement with PIDX organization to work on Global Standards as supplement of BP’s Global SAP</td>
</tr>
<tr>
<td>2012</td>
<td>Start of BP’s Global SAP Deployment in Rhine3a (GER, AUT, LUX)</td>
</tr>
<tr>
<td>2014</td>
<td>Go-Live of BP’s Global SAP Deployment in Rhine3a</td>
</tr>
<tr>
<td>2015</td>
<td>Ongoing Global SAP Deployment</td>
</tr>
</tbody>
</table>
History of BP initiatives

Example: Global SAP Deployment in Rhine Region

- Go-Live as a “Big Bang” on 1st July 2014 in GER, AUT, LUX
- 100+ Legacy Systems replaced with SAP, harmonised applications and middleware
- Connectivity established to 80 sites (refineries and terminals)
- Introduction of new processes impacting
  - Business processes
  - SAP system processes
  - Terminal / TAS processes
History of BP initiatives

Example: Global SAP Deployment in Rhine Region

- **Introduction of new interface flows for…**
  - Master data synchronisation
    - Customer master
    - Load ID
  - Planned movements
    - Road
    - Non-road
  - Allocations
  - Throughput
  - Inventory

- **Replacement of German MPKS format with PIDX BOL 5.01.01 for loading / discharge results and extension to other businesses and regions**
  - Approx. 8,000 – 10,000 individual PIDX messages are currently daily exchanged
Return of Investment

Realised Benefits

- **Increased quality of data due to**
  - Synchronised master data
  - Less manual intervention

- **Less effort in error handling**

- **Harmonised processes and tools allowing centralization of support activities**

- **Minimised lead-time between**
  - Order taking and authorisation to load
  - Scheduling and execution

- **Improved execution management due to timely feedback (PIDX)**

- **Increased business flexibility, e.g. cross-border operations**

- **Reduced implementation effort due to harmonised processes and larger footprint (esp. PIDX eBOL)**

- **Cost-efficient use of managed data hubs or clearing houses possible**
2012 – 2014: Implementations

Implico’s Role

- Implico supported this project for more than 25 terminals
- Key: iGOS (Implico Global Operation Services) Centre as the single point Hub for BP

- Parts of the terminals owned by BP, parts with BP own stock, parts with 3rd party stock
- New connectivity with SFTP / MFT
- New interfaces for BP-Outbound and BP-Inbound (PIDX / BOL message) developed
- New TAS processes introduced in the OpenTAS Terminals

- Common goal to expand it to more terminals across Europe in the next 5 years
Terminal Communication
Overview

Load-ID & Contract, order & Shipment & Nominations
Movements
Throughput
Inventories

ERP system

ITT
Terminal

Authorisations
Trips

Clearing House
Hauliers
Suppliers

Movement results

Distribution
B2B
B2C
Supply

Optimising the supply chain using standards in data exchange

© Implico
BP Rhine Communication supported by iGOS

Overview

iGOS
Implico Global Operation Services

Headquarters
PIDX_BOL + LID Add-on
Throughput
Planned Movements
Master Data

Planned Movements
Master Data
PIDX - BOL

Entrance with Validations

Throughput

OpenTAS Terminal & Non OpenTAS Terminal
Solution Concept Outlook

- **Interface Layer**
  - Outbound interface
    - Via Interface -> PIDX planned movement message
  - Via existing references in TAS

- **Experience**
  - Planned movements should be a standard message in PIDX in the future → need to agree on minimum process requirements
Summary

Way Forward

- PIDX workgroups are on the way towards a common and modern standard in data exchange in the Oil and Gas industry sector

- Some more message types must be defined
  - Planned movements
  - BOL confirmation
  - Inventory

- Examples, Rules and Restrictions for typical business process handling must be established

- Harmonisation of master data is work in progress

- With the experiences of the next implementations, it will be the long awaited standard for the whole oil & gas industry
Questions and Answers
Thank you for your attention