

Integration of process control into the supply chain

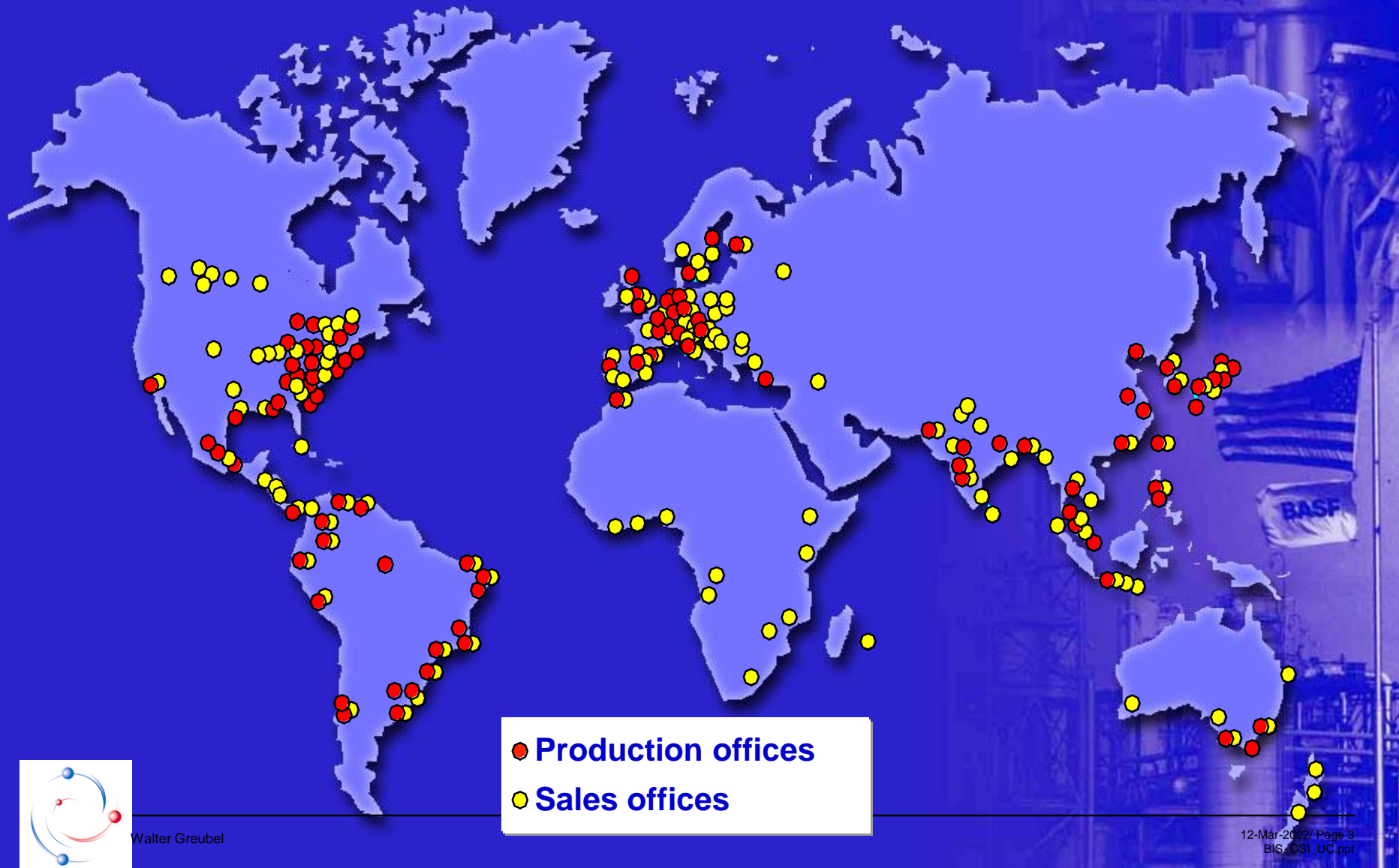
Use of OSI products

Overview

- BASF group
- BASF IT Services
- SCM for BASF: EURIS LOMAS
- LOGICA for BASF Antwerp
- Requirements and difficulties
- Solution
- Project approach and figures
- Advantages / Disadvantages
- Conclusion



BASF is a transnational chemical company



BASF products are everywhere

Health sector



Communication



Sport & Leisure



Traffic



**BASF...
a wide
variety of
products**



Housing



**Food
supply**



Figures

Data in million Euro	1999	2000	Variance in %
Sales	29.473	35.946	+22,0 %
Income from operations	2.009	3.070	+52,8 %
Profit before taxes	2.606	2.827	+8,5 %
Net income after taxes	1.237	1.240	+0,2 %
Number of employees	104.628	103.273	-1,3 %



BASF IT Services

- Creation of BASF PAN European IT Organisation 02-Apr-2001
 - BASF IT Services B.V.
 - Headquarters in Waedenswil, Switzerland
- Integration of European BASF IT Organisations of
 - BASF AG, BASF Schwarzheide, Elastogran
 - BASF Computer Services subsidiaries
 - BMS Spain
 - BIS Italy
- About 2000 employees
- Preferred IT service provider to BASF Group companies in Europe
- Turnover > € 400M



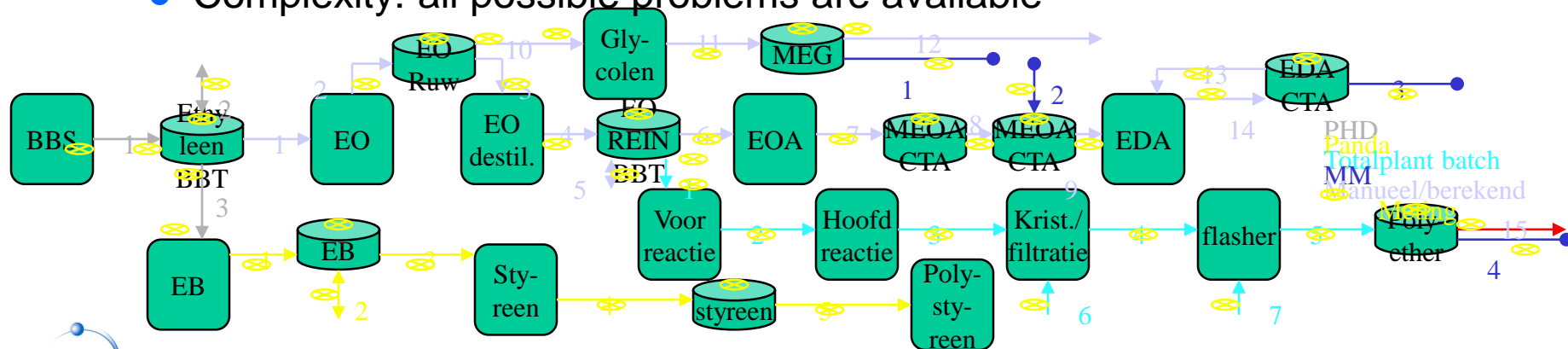
SCM for BASF in Europe: Euris/Lomas

- **EURIS**
European Information and Communication system for marketing and sales
- **LOMAS**
Logistic management system
- Impact on production sites, logistic services sales and marketing bureaus
- Fluent, uniform, transparent and actual information is **necessary** in the process from customer order to delivery of goods
- Information actual, uniform and transparent at disposal for sales, marketing, logistics, distribution and production, at group level
- Dealing efficient with the process 'customer orders' – 'customer receives'
- ...standardize this processes on SAP R/3



LOGICA for BASF Antwerp

- Production site of 55 production plants
- Transferring SAP R/2 processes into SAP R/3 and implementation of PP/PI
- 500 users involved
- PP/PI issues:
 - 'VERBUND' or production cluster
 - Mixed : batch and continuous
 - Complexity: all possible problems are available



Requirements and difficulties

● Requirement

collect, reconcile and book automatically all production, consumption and stock data of the 55 production plants on the site daily

● Difficulties

- Before, this stocktaking was done manually
- Stocktaking was done on a monthly basis.
- Complete stocktaking with reconciliation took 3 days
- different timestamps of the collected data
- Different registration systems of the collected data
- Integrated product flows.

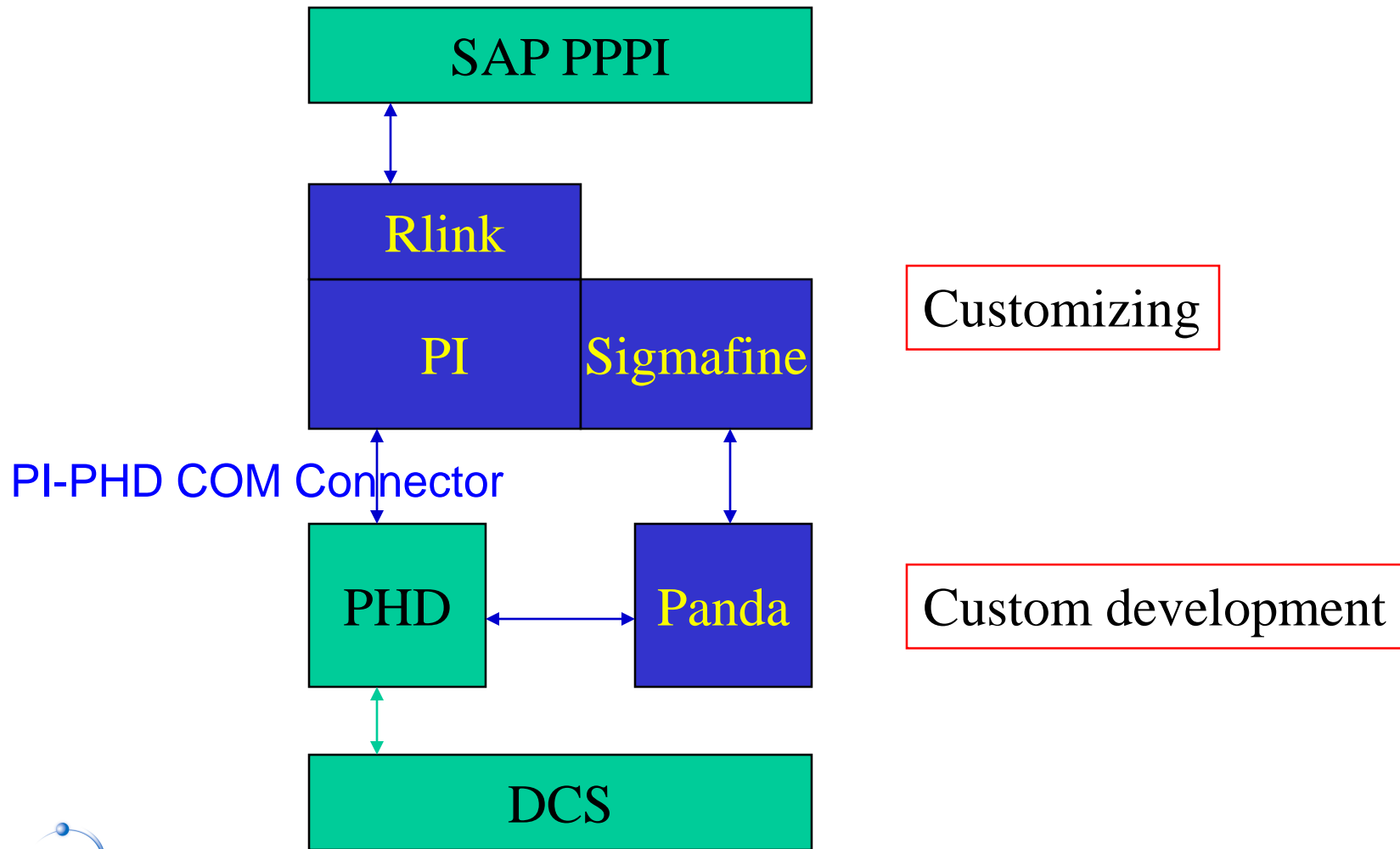


Solution

- Integration of process control and SCM:
 - Grouping of production plants in 6 product clusters
 - Synchronise the time of closing
 - Use of commercial available software and existing platforms
 - Collecting all data on 1 platform: PI
 - Synchronise the time of closing
 - Interactive and graphical reconciliation tool as control: sigmafine
 - Automated booking of orders with PSRlink
 - Development of an application for steering the dataflows
- Result
 - All data is collected from 06:00 to 08:00
 - Reconciliation takes about 30 to 60 minutes per cluster
 - Booking in SAP is done automatically



OSI software packages



Project approach and figures

● Approach

- Small testcase as feasibility study
- All work done in house with some consultancy support
- 1 FTE for change management
- Each product clusters has 1 cluster responsible
 - ➔ Inventarisation of master data is time consuming

● Figures

- Timeframe: 1 year
- 800 mandays
- Core team of 5 people

● Advantage

- A feasible project
- Relatively small project budget
- All work done by a small project team



Disadvantages

● Structural issues

- Overkill: there is still unused potential
- Technical part is more easy than the organisational part
- The learning is still ongoing especially on the Sigmafine part
- Some extra configuration needed in PPPI
 - ➔ Continuous plants modelled as batch plant
 - ➔ resource/ / resource network configuration
- System is extremely vulnerable on consistency of data through all layers

● Technical issues

- Rlink on sqlserver is very 'resource consuming'
- PHD COM connector is pulling down PHD: tuning is important
- Unintegrated configuration



Conclusions

- Integration of shop-floor and SCM is important
- Implementation is possible in a 'running' company
- Organisational part is more difficult than the technical part
- OSI software makes the project technically feasible

