REAL-TIME PERFORMANCE MANAGEMENT FOR THE ENTERPRISE
RtPM
SAN FRANCISCO PHILADELPHIA HOUSTON FRANKFURT
OSISOFT USER CONFERENCES 2005
REAL-TIME PERFORMANCE MANAGEMENT FOR THE ENTERPRISE
RtPM

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Driving value by integrating SAP xApp Emissions Management and OSI RtPM

Overview

Business Processes

Core Processes and Functions

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TechniData and SAP – Our Relationship

Since 1985 providing leadership for IT-based environmental management

Developed the first integrated environmental information systems (Hoechst and BMW)

350 employees fully dedicated to compliance solutions for EH&S

- **Established partnership with SAP 1995 for the development of an environment, health and safety module (now known as SAP EH&S)**
- **Enlarged partnership with SAP 2001 for development and maintenance, pre-sales, marketing, training and services**
- **Enlarged partnership with SAP 2003 for development and maintenance, Audit Management and Recipe Management**
- **Enlarged partnership with SAP 2003 for development and Roll-Out SAP xApp Emissions Management**
- **Enlarged partnership with SAP 2004 for Powered by SAP NetWeaver program with Environmental Performance Management**

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SAP xApp Emissions Management

- xEM is the Solution for Environmental Compliance and Emissions Management
- xEM supports the Alignment of Business Processes to Regulatory Requirements
- xEM provides Tools for Risk Mitigation and Opportunity Identification.

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Compliance: Situation and Trends

- Increasing complexity of regulation frameworks
- Rising frequency of change
- Increasing number of deviation events
- Expanding effort for management and reporting
- Resource limitations
- Violation risks
- Direct operational and financial impacts

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Typical Applications

- Management of operating permits
- Compliance Tracking
- Handling of exceptions
- Regulatory and ad hoc reporting
- Sophisticated data analytics
- Alignment to emission trading schemes
- Evaluation of forecast and planning scenarios

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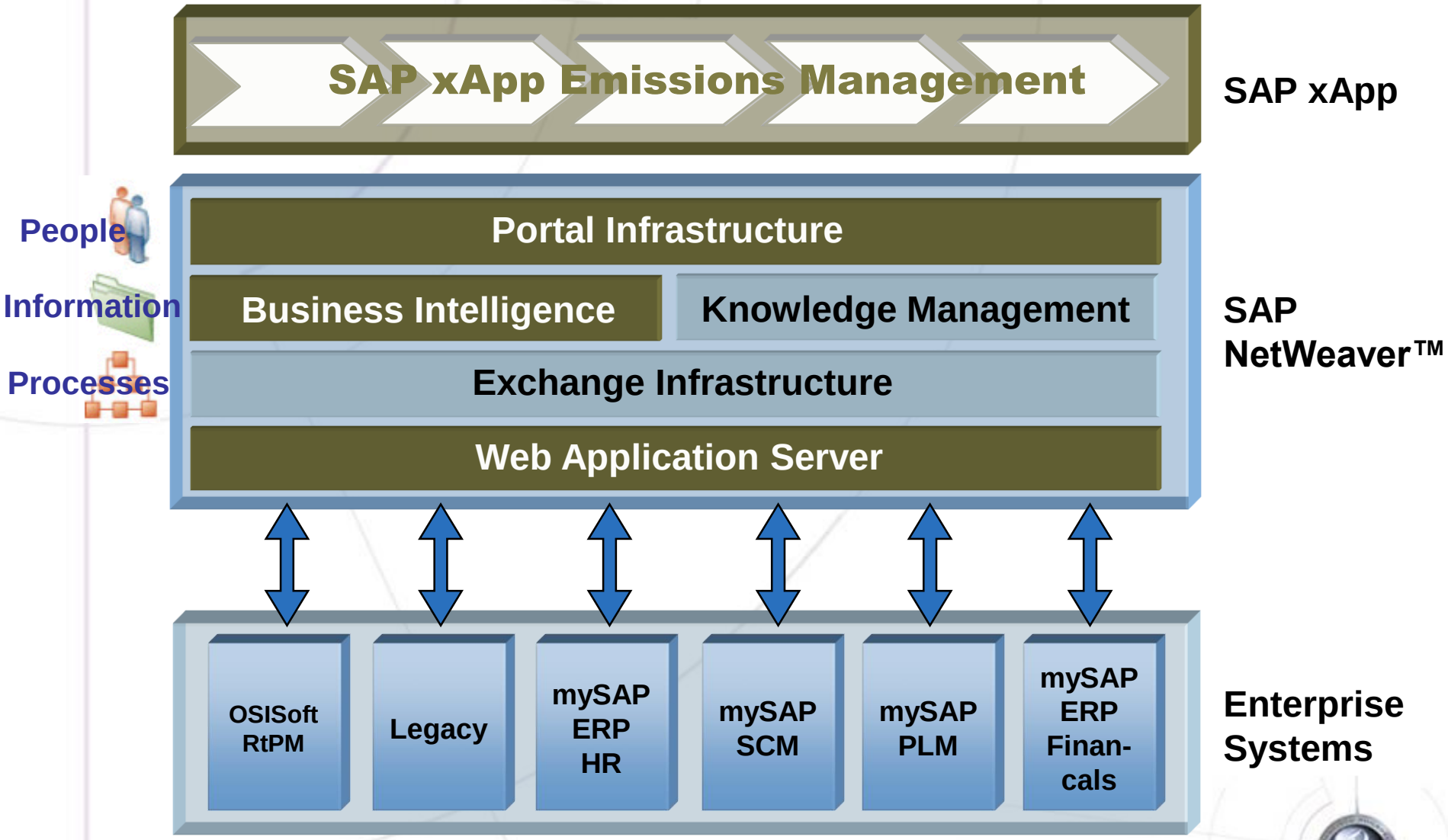
SAP xEM comes with SAP NetWeaver



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SAP xEM User Roles

System Access by Role

Power User: Emissions Expert

- All Read and Write Rights
- Control all Functions
- System Configuration
- System Update
- Analysis and Reporting

Data Entry User: Facility Operator

- Limited Read/Write Rights
- Data Entry only
- Uses Simplified Dialogues
- See Report Data

Supervisor User Compliance Manager

- Read and Write Rights
- Control Selected Functions
- Data Analysis
- Reporting

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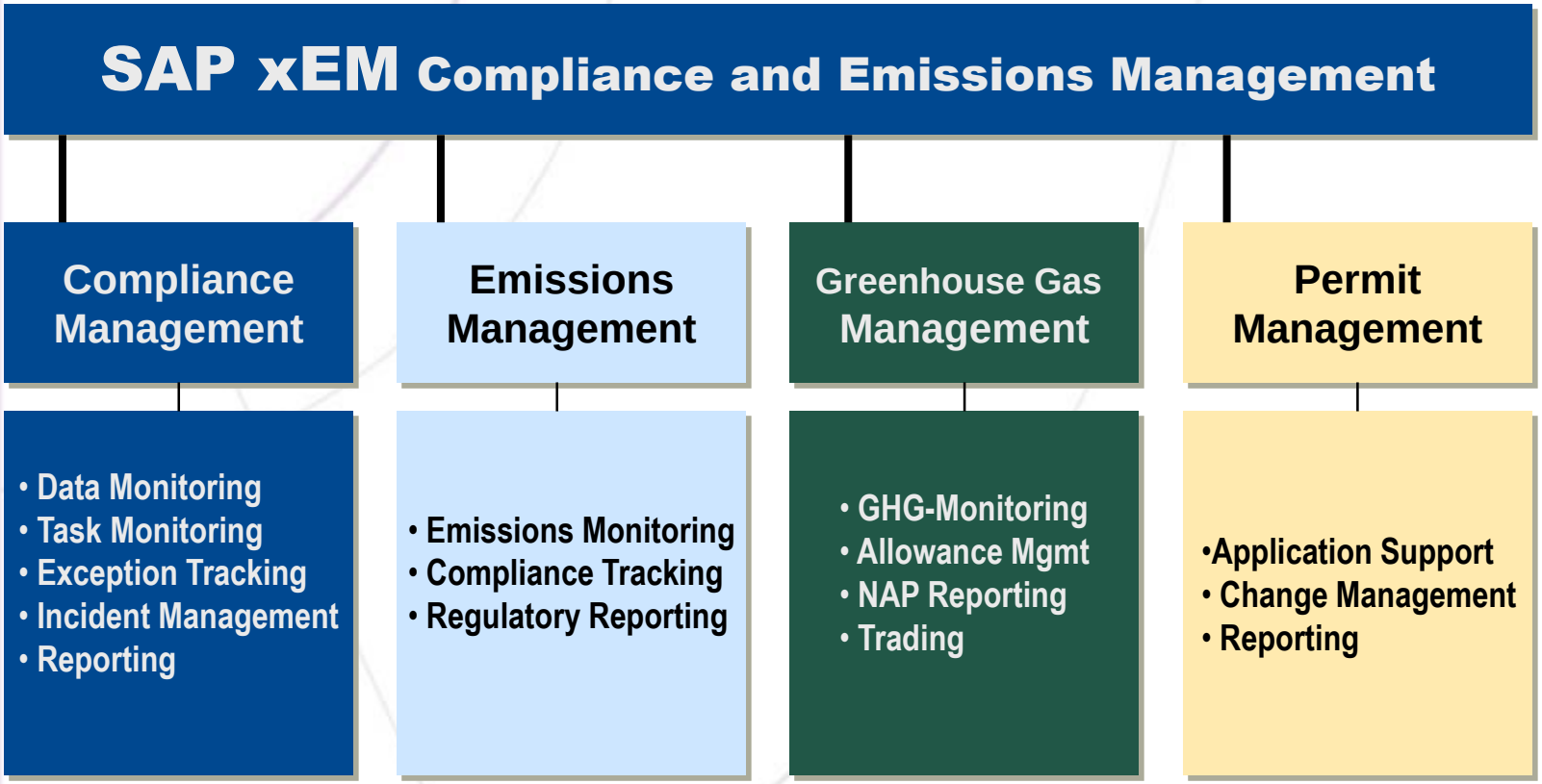
SAP xEM: Solution Components



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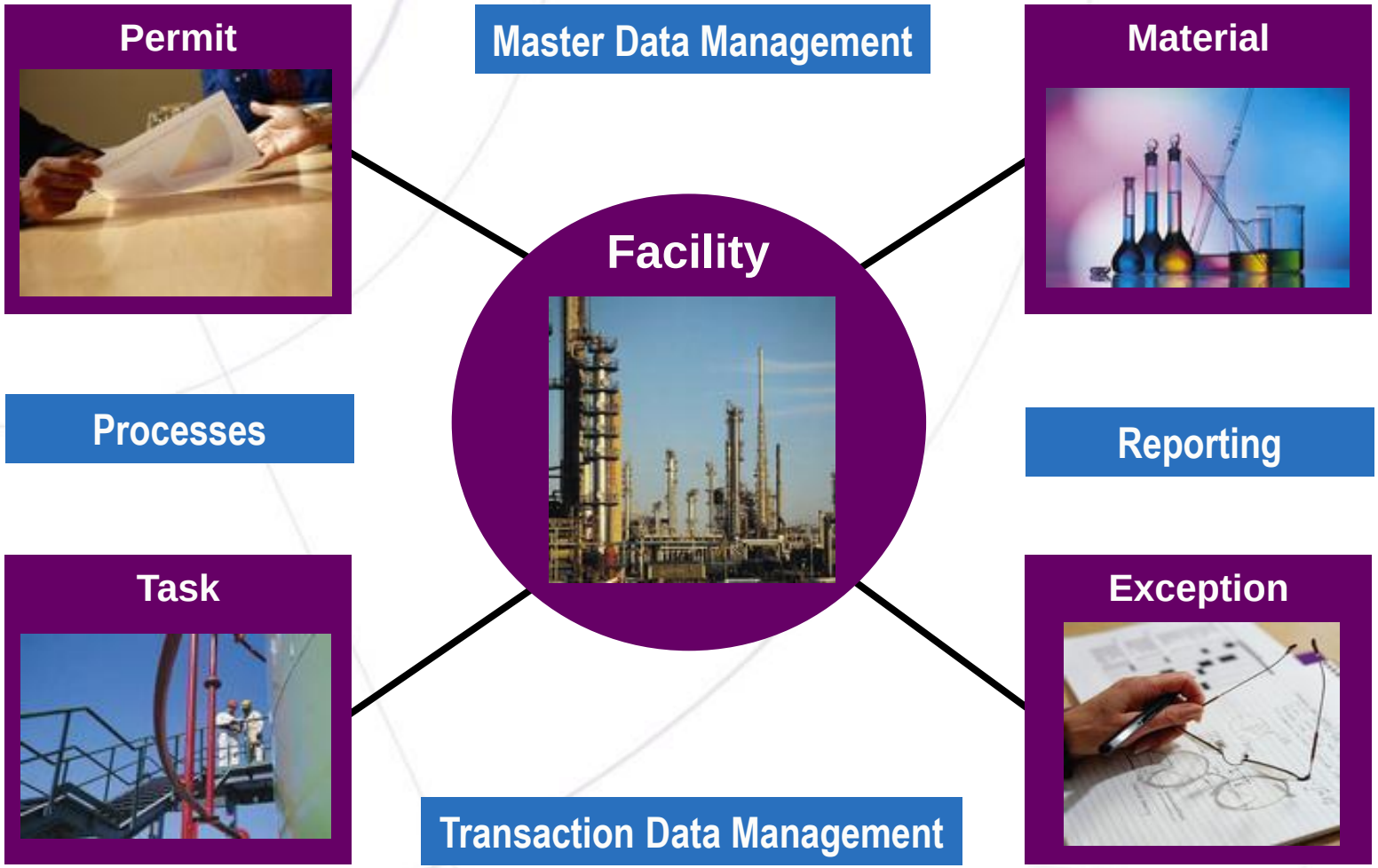
SAP xEM Objects and Processes for Compliance



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Master Data Management

SAP xEM Objects and Processes

Integration

SAP ERP

EHS

ALM

MM

Permit

Material

Facility

Task

Exception

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Transaction Data Management

Integration

SAP xEM Objects and Processes

SAP ERP

QM

PP

MM

Permit

Material

Facility

Control Systems

PI

Task

Exception

PM

SAP ERP

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SAP xEM Objects and Processes

Reporting

Integration

SAP ERP

Permit

Material

Facility

BW

Reporting

- Adobe
- SAP BW

Task

Exception

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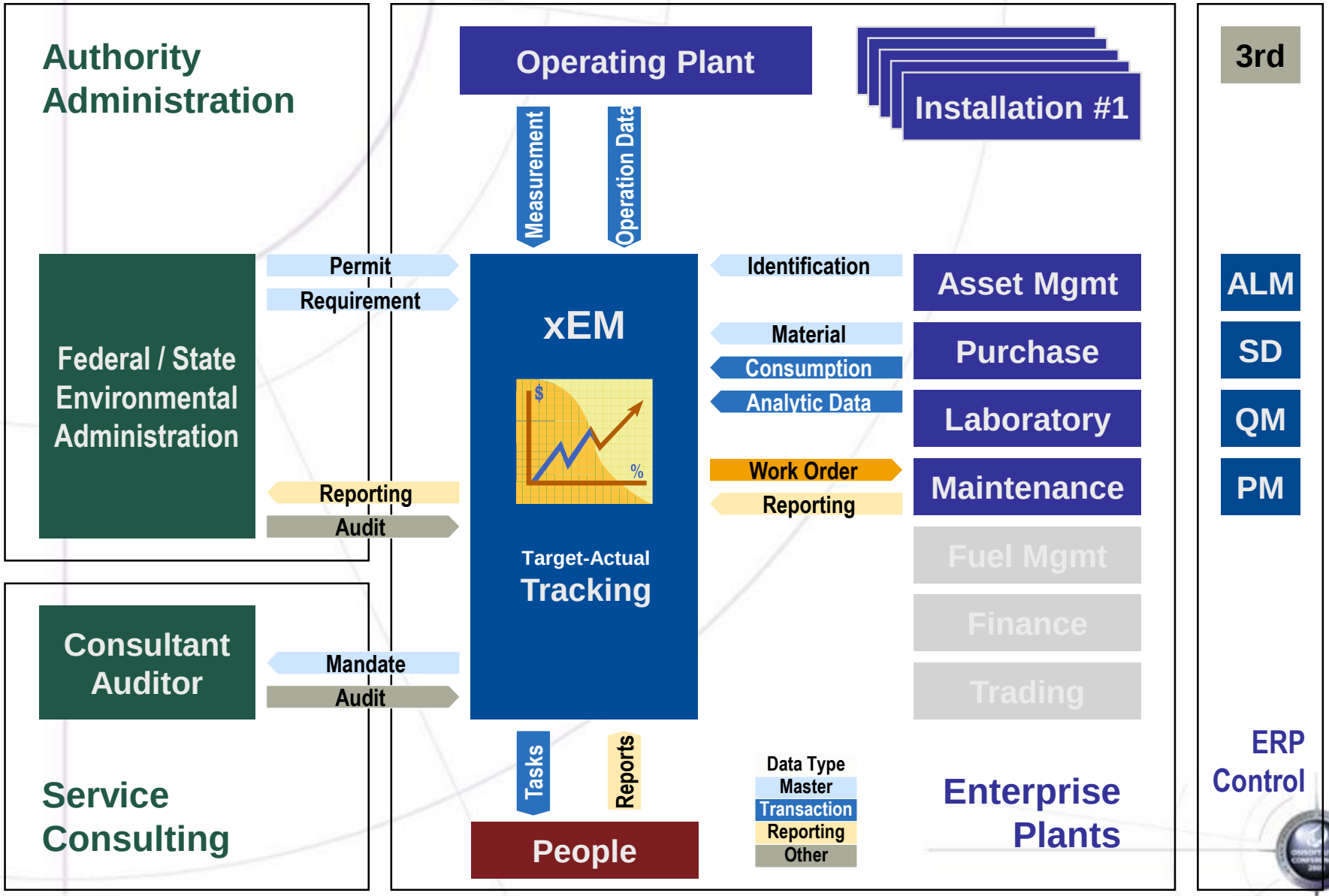
Emissions Management



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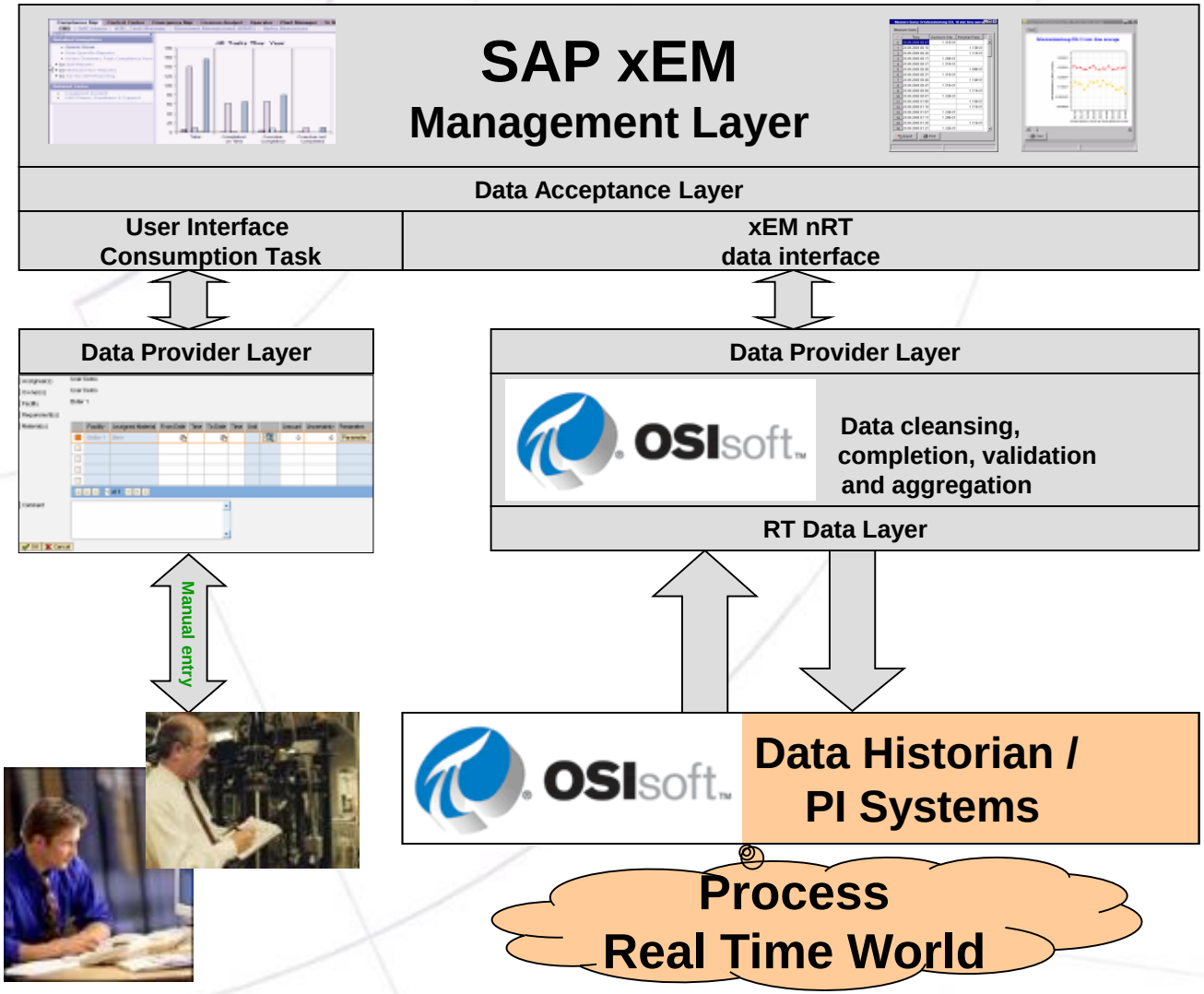
SAP xEM with OSIsoft RtPM – the concept



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Purpose of xEM data interface

- Define standard Interfaces to accept incoming data from Real Time systems such as data historians directly
- Provide Mechanism to be able to handle continuous data-loads of the following data-items into xEM:
  - Measurement data
  - Consumption and Consumption parameter data
  - Rolled-Up Emission values
  - Exceptions
- Mapping of Master Data
  - E.g. Facilities, Limits

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Data Averaging / Cleansing requirements

Data being delivered to the xEM data interface needs to comply to certain aspects:

- **Data flowing from process system to management system needs to be consistent, valid and auditable**
- **Mechanisms to trigger exceptions based on limit violations**
- **Scalable Architecture to support data loads ranging from only a few data items in a bigger timeframe up to hundreds of data-points in a higher frequency**

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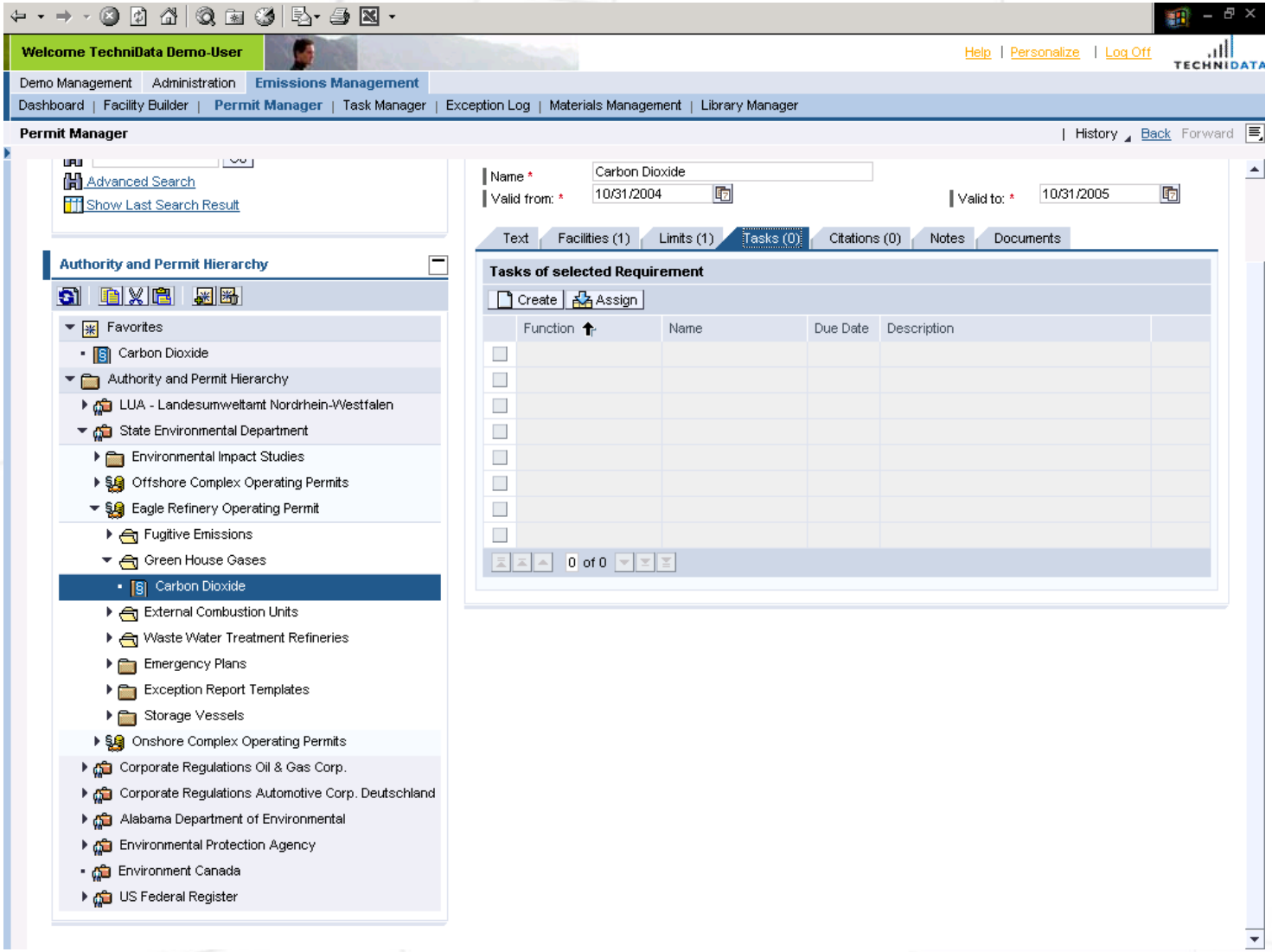
Permit and Requirements Managment



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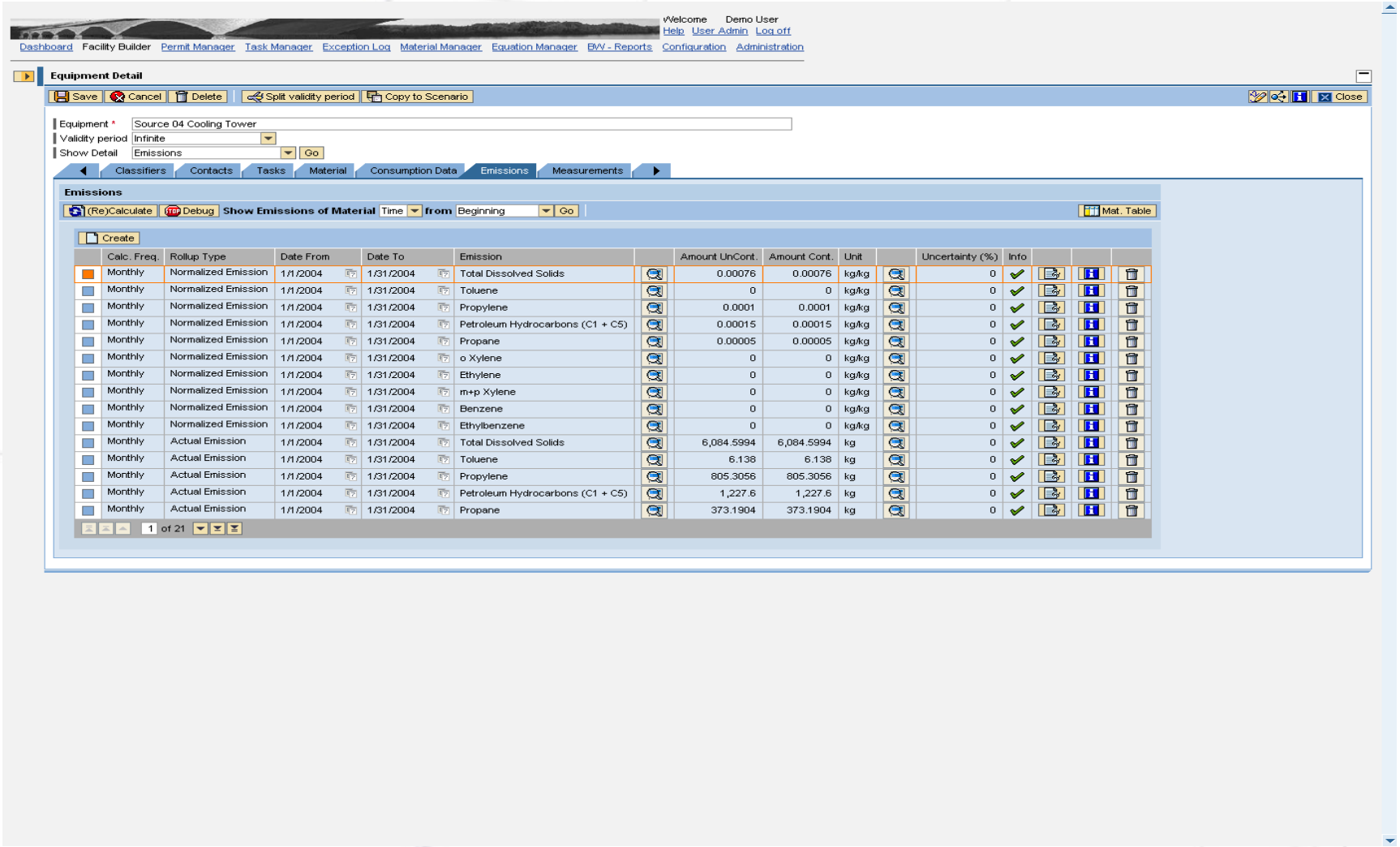
Emissions Inventory



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The Emissions Compliance Management Solution

Process Improvement, risk reduction and compliance achievement

- Improvement of productivity by aligning business processes with fulfillment of required environmental regulations
- consistent information tracking for all processes and trusted data for enterprise planning and risk management
- transparency for shareholders, investors and public
- fulfillment of required regulations (state, federal, international) – license to operate
- early identification of deviations and critical issues to maintain plant productivity

Capabilities you need

- Emissions estimation and analysis supported by scenarios, calculations and presentation of emissions data
- Compliance management with task supervision, schedules, defined information flows and procedures and roles
- Compliance reporting via automated report generation and delivery
- Emissions trading and collaborative scenarios, including forecasting and transaction support

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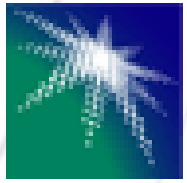
Selected Customers



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