



Business Process Transformation Based on a Digital Twin of the Organization

SOUG Espresso – June 28, 2024

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AGENDA

BUSINESS PROCESS TRANSFORMATION

- Introduction
- **Problem**
- **Challenges**
- **Solution**
 - Digital Twin of an Organization
 - Small Example: Plant Engineering
 - Prefabricated Process Knowledge for Oracle Applications
 - Use of AI for Process Design
- Discussion

PROMATIS – BUSINESS AREAS



Excellent Business Processes and Oracle Digitization Solutions

Project Excellence | Process Excellence | Enterprise Applications | Digitization Technologies

PROMATIS

- Solutions based on Oracle applications & technology
- Best practices for Oracle solutions - extensions & customizations

HORUS

- Products for professional business process management
- Method, tools & prefabricated knowledge


INNOVATOR
des Jahres 2024



PROBLEMS & CHALLENGES

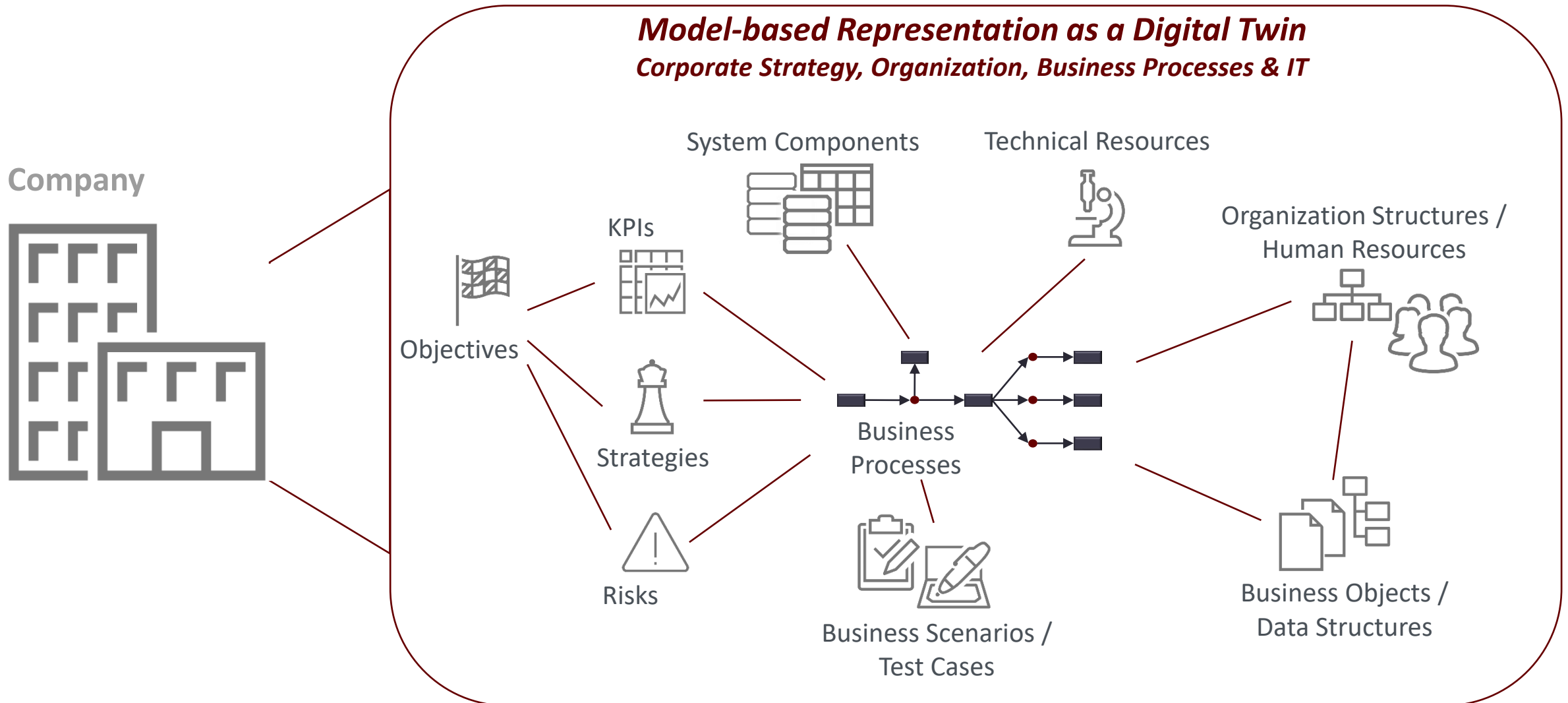
TYPICAL CURRENT TRANSFORMATIONS IN COMPANIES

- Digital transformation / Introduction of new business software
- Green transformation
- Mergers & Acquisitions
- Changes in the business model or business processes
- Agile company
- Organizational learning

 **Management of high complexity & dynamics is required!**

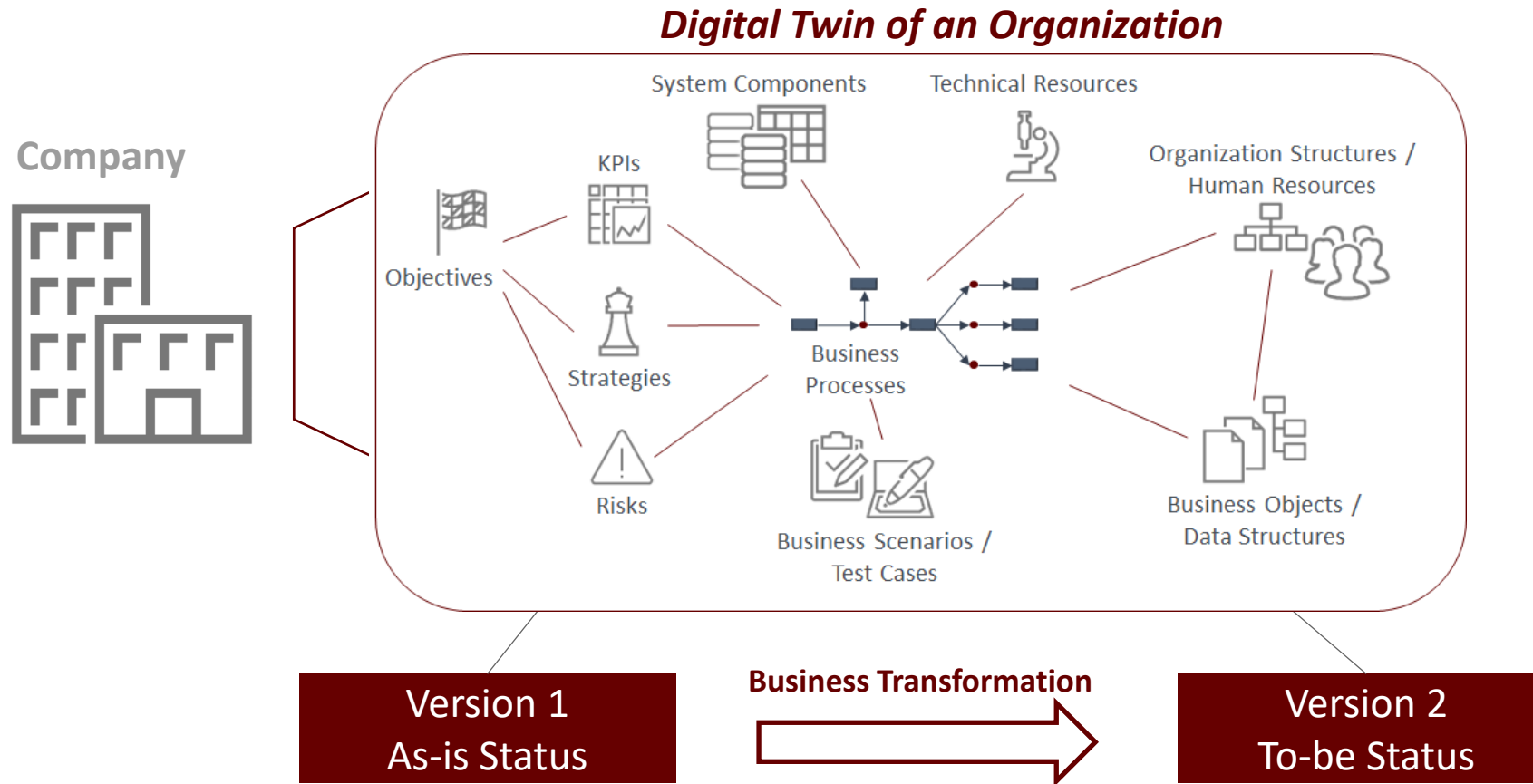
BASIC SOLUTION IDEA

DIGITAL TWIN OF AN ORGANIZATION (DTO) - BASIS FOR TRANSFORMATIONS

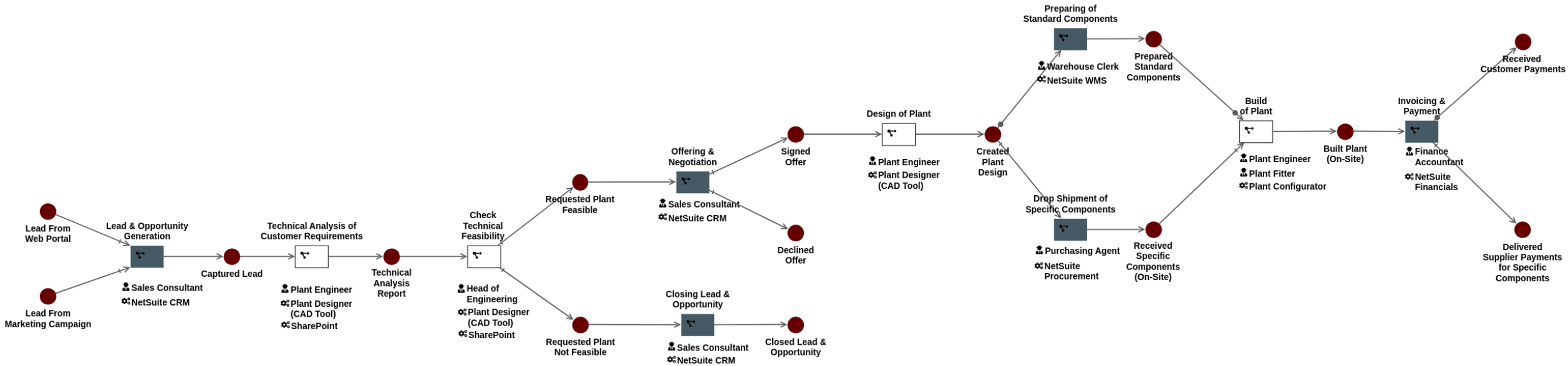


BASIC SOLUTION IDEA

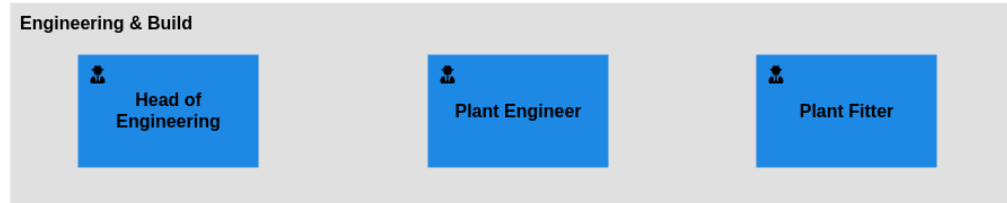
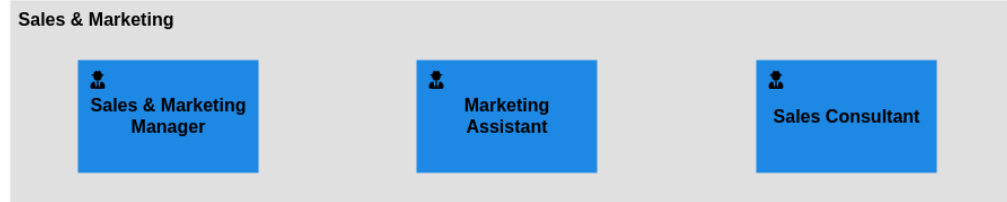
DIGITAL TWIN OF AN ORGANIZATION (DTO) - BASIS FOR TRANSFORMATIONS



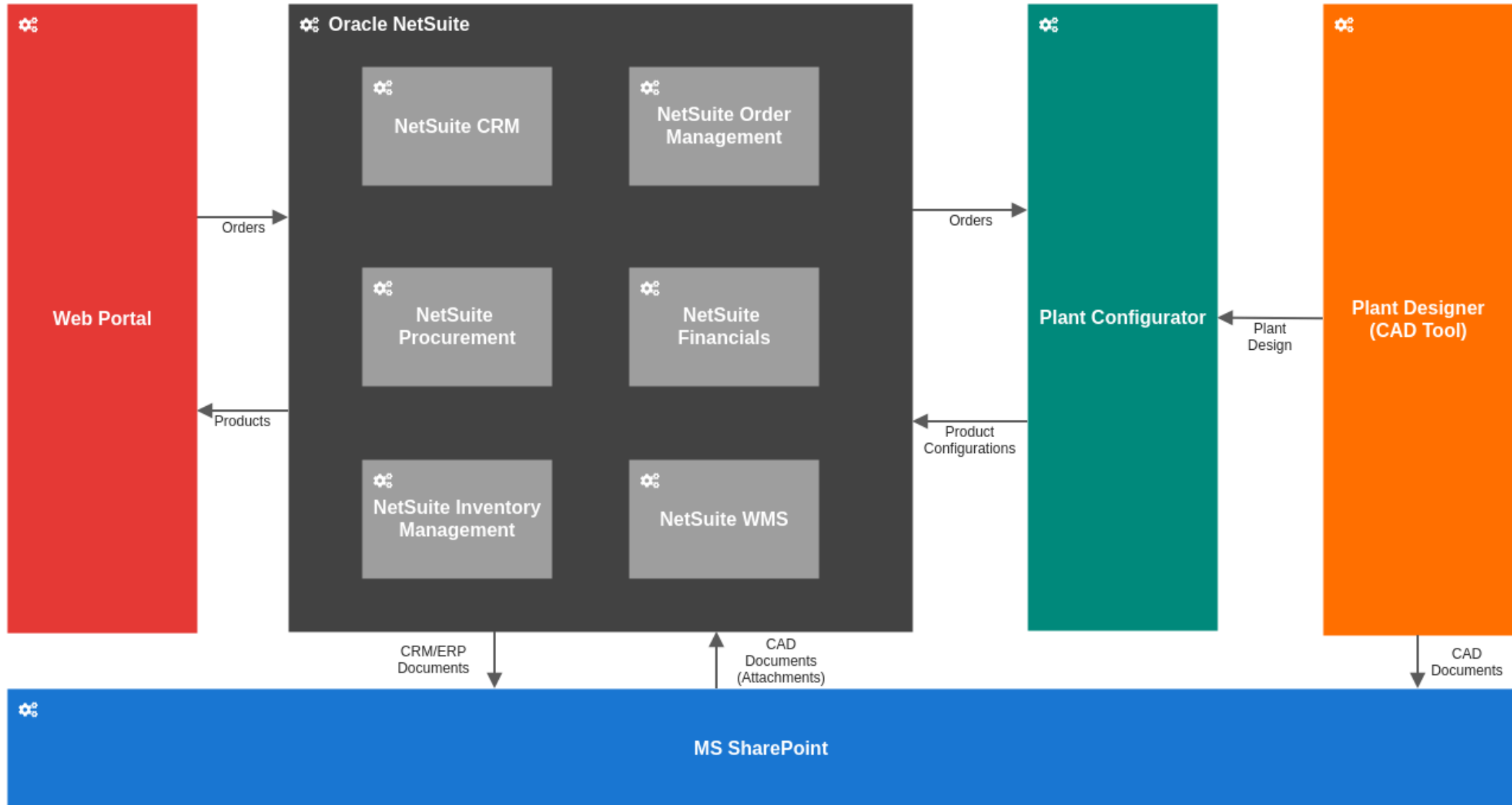
SMALL EXAMPLE – PLANT ENGINEERING TO-BE END2END-PROCESS (LEAD2CASH)



SMALL EXAMPLE – PLANT ENGINEERING INVOLVED BUSINESS ROLES

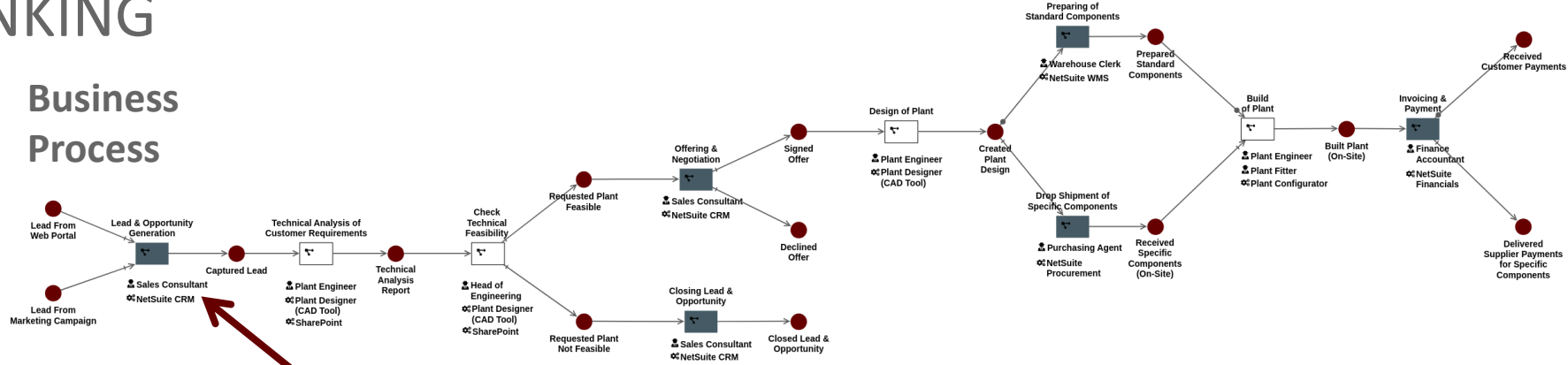


SMALL EXAMPLE – PLANT ENGINEERING DESIGNED SYSTEM ARCHITECTURE

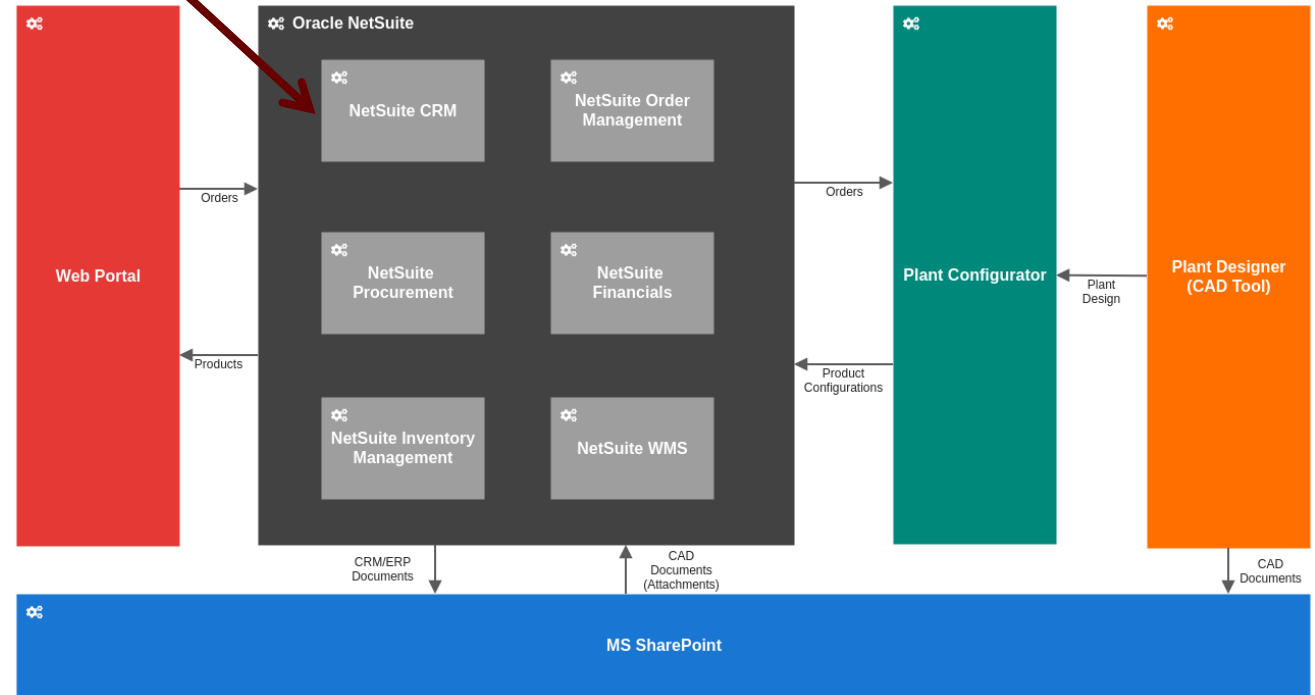
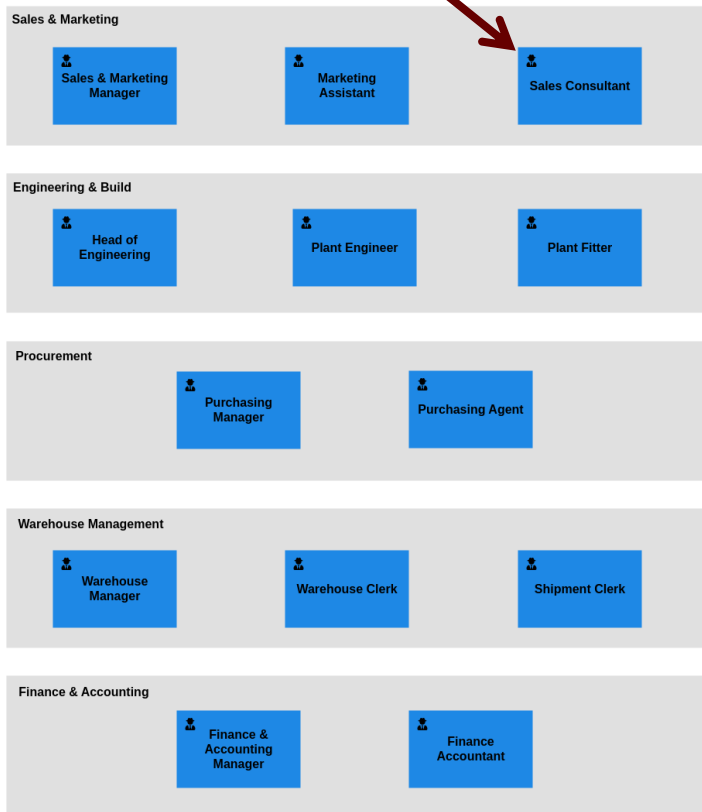


SMALL EXAMPLE – PLANT ENGINEERING CROSS-LINKING

Business Process

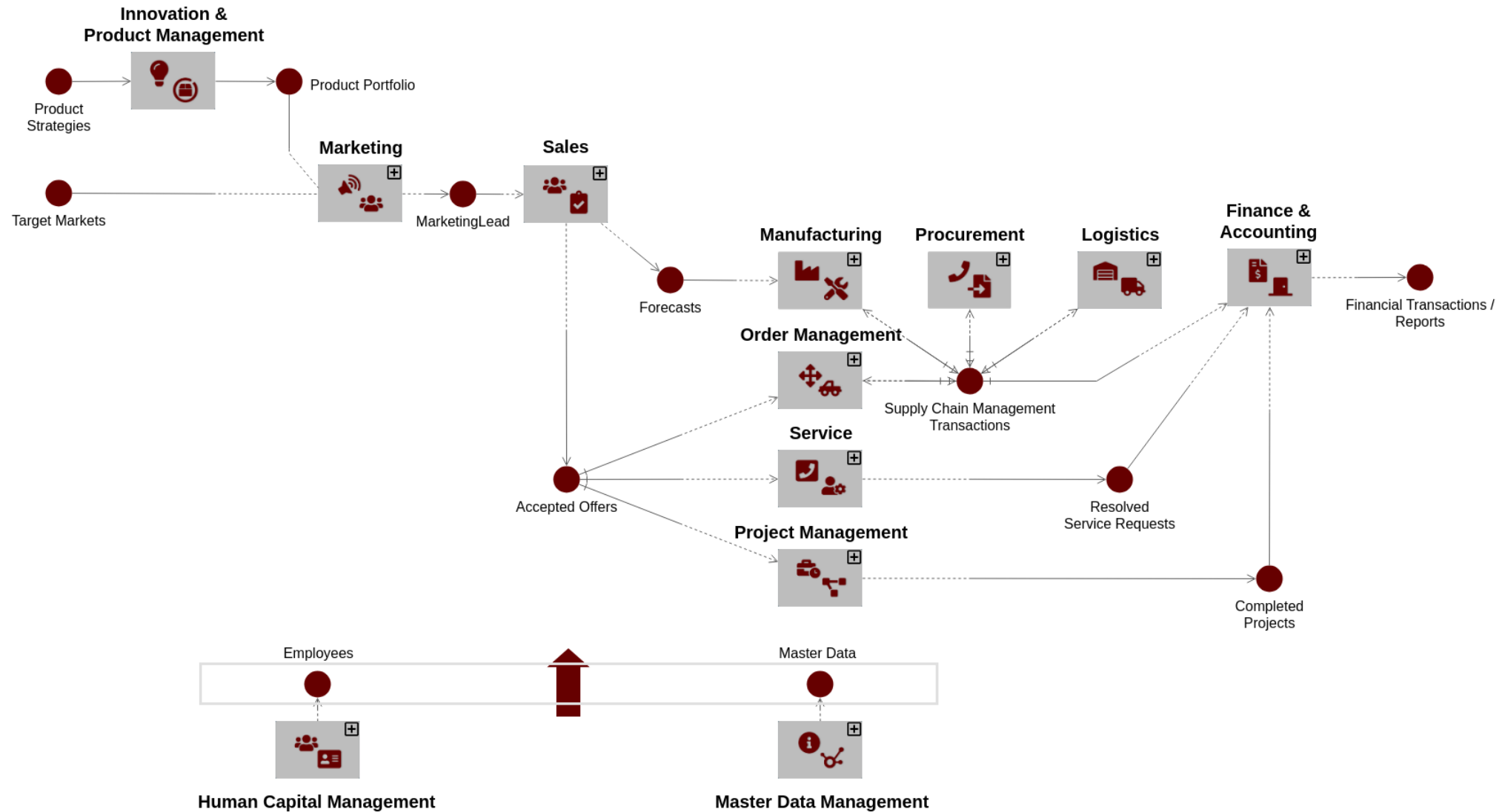


Business Roles



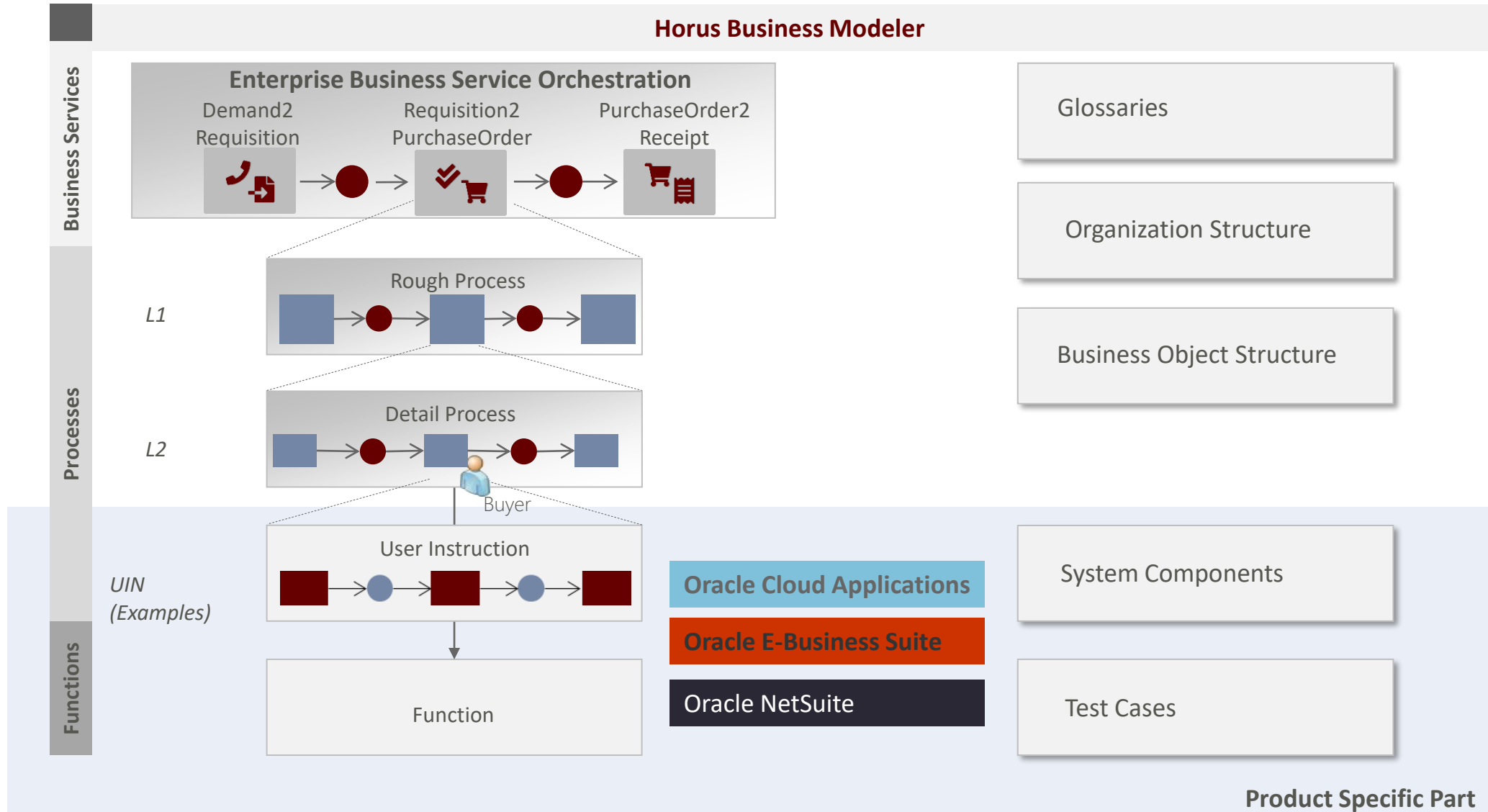
System Components

TYPICAL BUSINESS PROCESSES FOR BUSINESS SOFTWARE COMPANY LEVEL



BUSINESS PROCESSES FOR ORACLE APPLICATIONS

PROCESS STRUCTURE – VIEWS ON DIFFERENT LEVELS

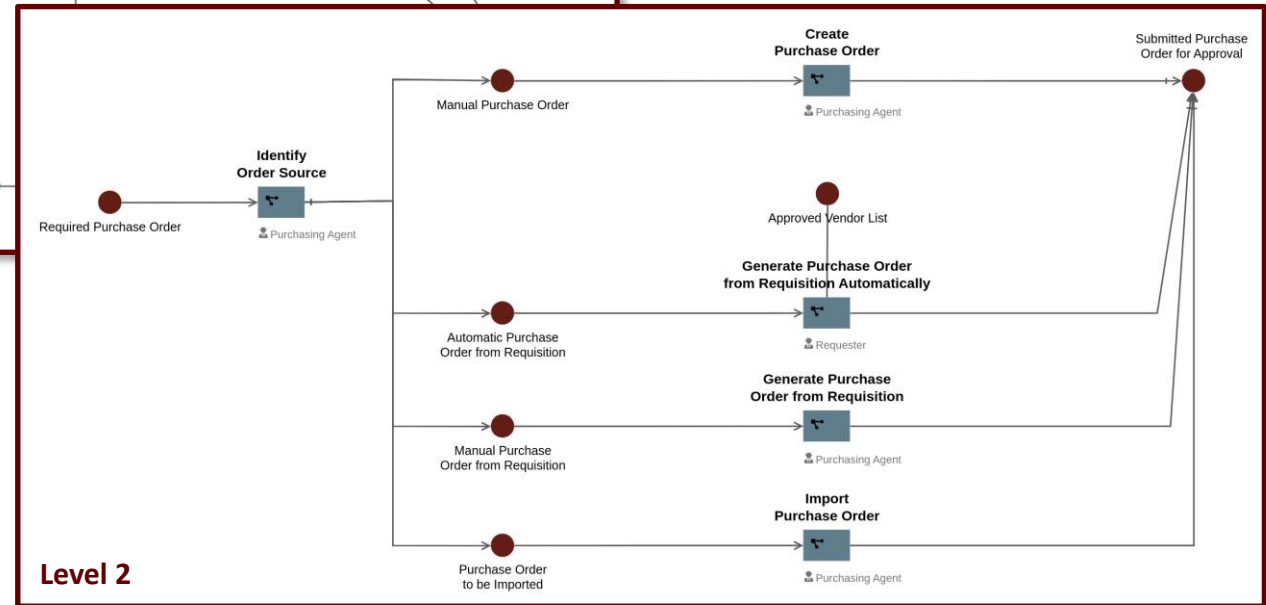
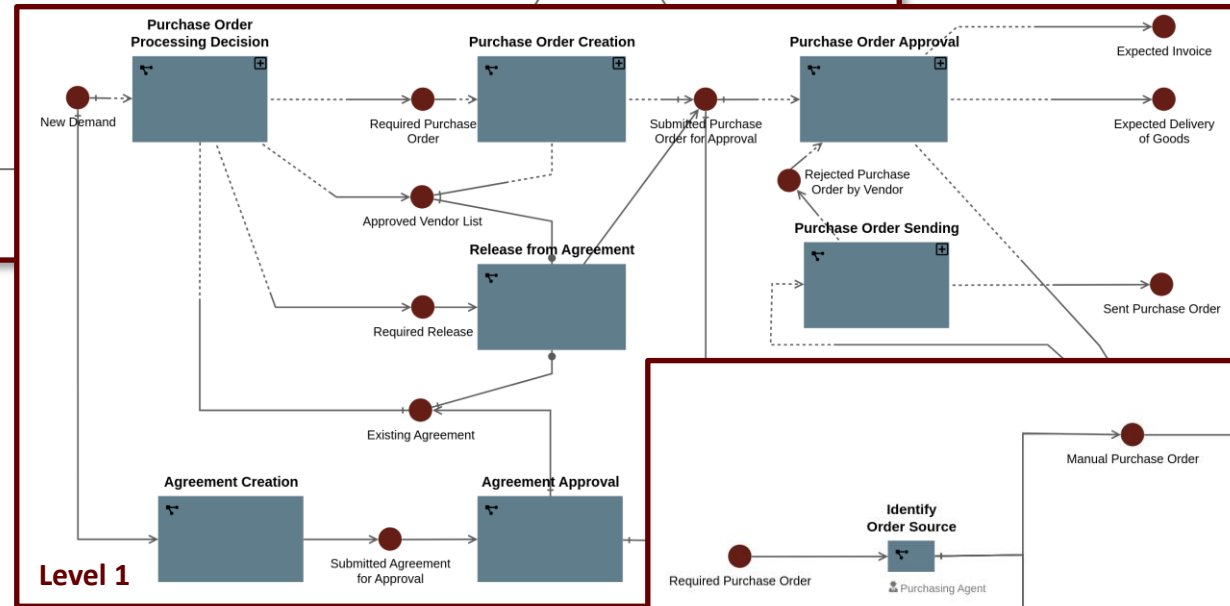


BUSINESS PROCESSES FOR ORACLE APPLICATIONS

PROCESS EXAMPLE – PROCUREMENT

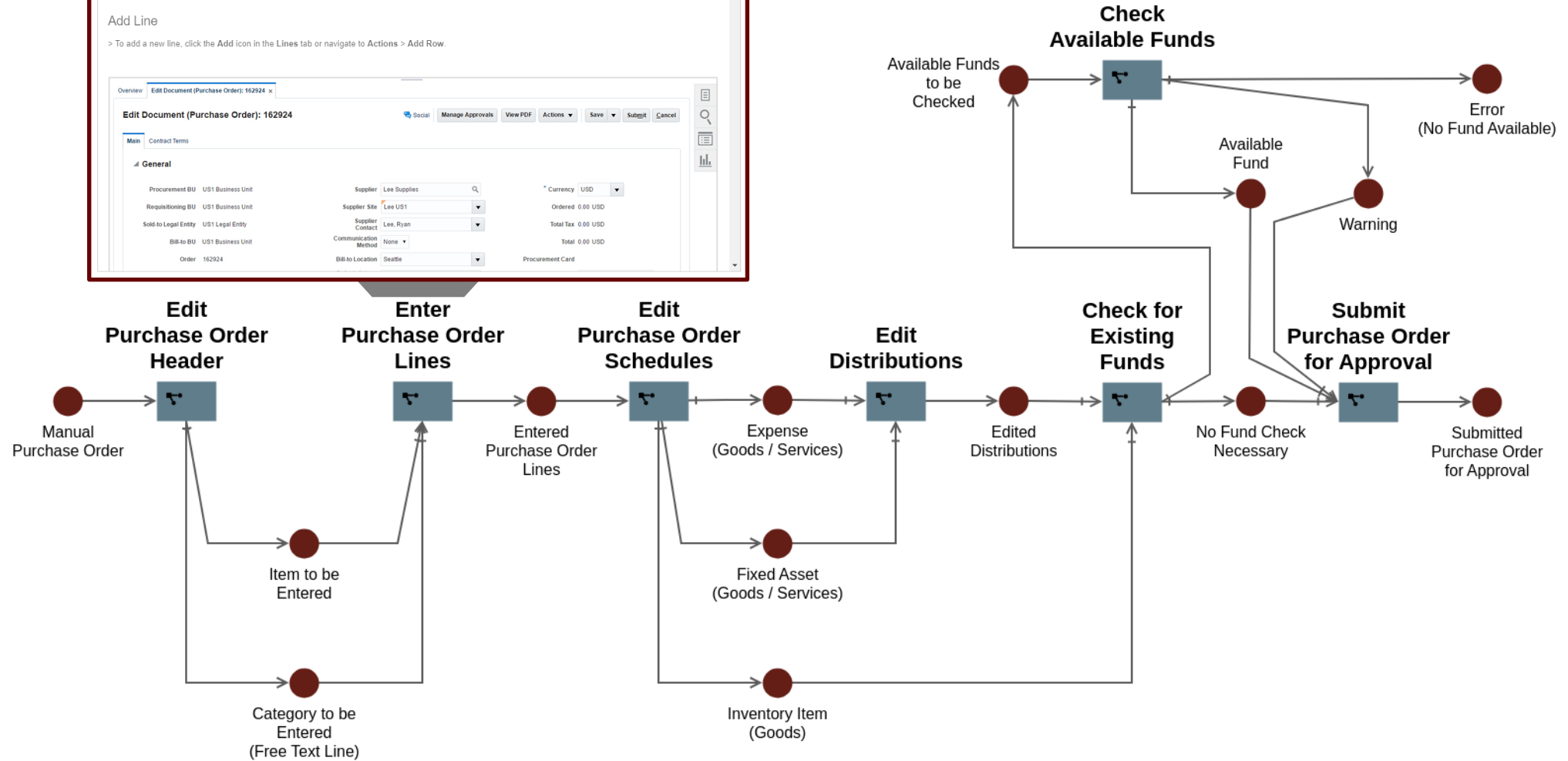
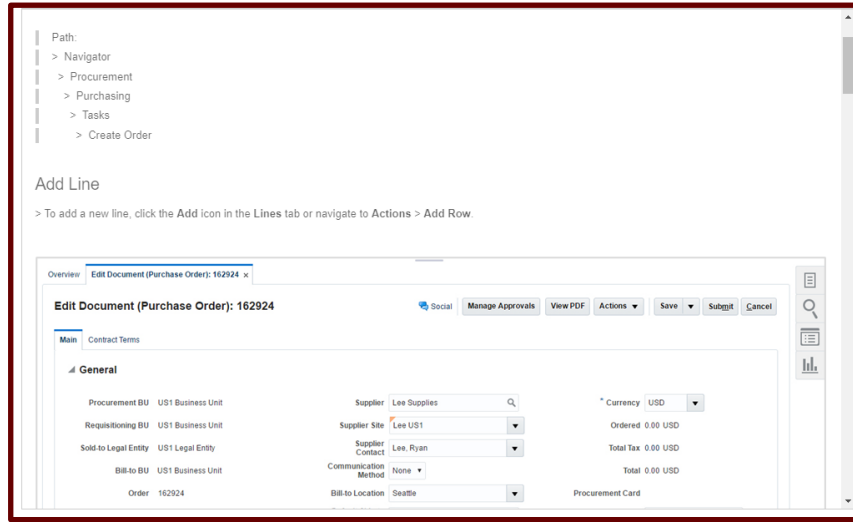


Process Overview



BUSINESS PROCESSES FOR ORACLE APPLICATIONS

USER INSTRUCTION – CREATE PURCHASE ORDER



AI-BASED BUSINESS PROCESS GENERATION



The screenshot shows the HORUS application interface. At the top, the logo 'HORUS' is on the left, and 'Horus Admin' with a user icon is on the right. Below the header is a toolbar with various icons for navigation and editing. The main workspace is currently empty, with tabs for 'Willkommen' and 'New Model'. On the right side, there is a configuration panel with several sections:

- Input Text:** A dropdown menu with the text 'Select an example input text*'. Below it, a text box contains the prompt: 'create me a an employee application and hiring process for HR office with parallelity'.
- Advanced Settings:** A section with a checked checkbox and the title 'Advanced Settings'. It contains:
 - An 'API-Key' input field.
 - A 'Select a model*' dropdown menu with 'gpt-4o' selected.
 - A 'Preprocessing Text' field with the text: 'I will not make the mistakes mentioned in the **Examples which are not valid and not allowed to generate:** section. **Please do not understand that a Petri net is...'.
 - A 'Processing Text' field with the text: 'I am a world class Petri net designer and extract the data for a Petri net in structured formats. Use the information provided and create a Petri net...'.
- A large red button at the bottom of the panel labeled 'Generate Model'.

At the bottom of the interface, there is a status bar showing 'Mausposition: (256, -136), Scope: diagram' on the left and system icons (notifications, Wi-Fi, volume, battery) and a 74% zoom level on the right.

AI-BASED BUSINESS PROCESS GENERATION

HORUS Horus Admin

Willkommen x New Model x

Input Text

Select an example input text*

Input Text
create me a an employee application and hiring process for HR office with parallelity

Advanced Settings

Generate Model

Application Submitted → Receive Application → Application Received

Application Received → Review Application → Application Reviewed

Application Received → Schedule Interview → Interview Scheduled

Application Reviewed → Conduct Background Check → Background Check Completed

Interview Scheduled → Conduct Background Check → Background Check Completed

Background Check Completed → Conduct Interview → Interview Conducted

Background Check Completed → Make Hiring Decision → Hiring Decision Made

Interview Conducted → Notify Applicant → Applicant Notified

Hiring Decision Made → Notify Applicant → Applicant Notified

Mausposition: (-27, 89), Scope: diagram

74%

AI-BASED BUSINESS PROCESS GENERATION

The screenshot displays the HORUS software interface for AI-based business process generation. The main workspace shows a workflow diagram for a phone recycling process. The process starts with 'Phone Collected', followed by 'Collect Phone', 'Phone Inspected', and 'Inspect Phone'. From 'Inspect Phone', the process branches into two parallel paths: one for battery removal and recycling, and another for phone disassembly and component recycling. Both paths converge at 'Recycling Completed'.

The right-hand control panel includes an 'Input Text' section with a dropdown menu and a text input field containing the prompt: 'create me an example of a phone recycling process with a lithium battery with parallelity'. Below this is an 'Advanced Settings' checkbox and a prominent 'Generate Model' button.

The bottom status bar indicates the mouse position at (-345, -492) and the scope as 'diagram'. The system tray shows a 74% battery level and other standard OS icons.