Customer Case:
How Cleaning Industry Leader Tennant Prepares for SAP S/4HANA Migration

SAPinsider
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Brian Miller, Tennant Company
Richard den Ouden, insightsoftware

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What We'll Cover

- Introduction
  - Tennant Company and insightsoftware
- Live Demonstration
  - How to enable business users to analyze and improve supply chain processes
- Customer Case
  - How Tennant utilizes the power of operational analytics and business intelligence
- Wrap-Up

Introduction: Richard den Ouden

Richard has over 25+ years of experience in research and development focused on SAP logistics and supply chain analytics, consultancy, account management and product marketing. As co-founder of Every Angle and the Angles for SAP solution, he is a trusted advisor to management and a growth-enabling key resource assisting organizations to maximize the value offered by Angles to existing and potential customers.

Richard's passion is to help companies improve their Supply Chain processes by using their SAP ERP data to analyze their operations, measure their KPIs, find bottlenecks, define underlying root cases and drive continuous improvement. He has completed 100+ successful projects at mid-sized companies and large multinationals globally.

History of Angles for SAP by insightsoftware

- 1996: Original company, Every Angle, founded in The Netherlands

- 1998: First software version release

- 1999: First customers (Eriks/ASML)

- 2001: Certified by SAP AG (ICC) in Waldorf, Germany

- 2001–2017: Growth to global customer base, 150+ customers

- 2018: Every Angle acquired by Magnitude

- 2021: Magnitude acquired by insightsoftware

- Today:

- 200+ customers (from mid-sized to multi-billion enterprise)

- 30,000 users globally from various industries
  - Manufacturing, Wholesale, Pharma, Food/Beverage, Chemicals
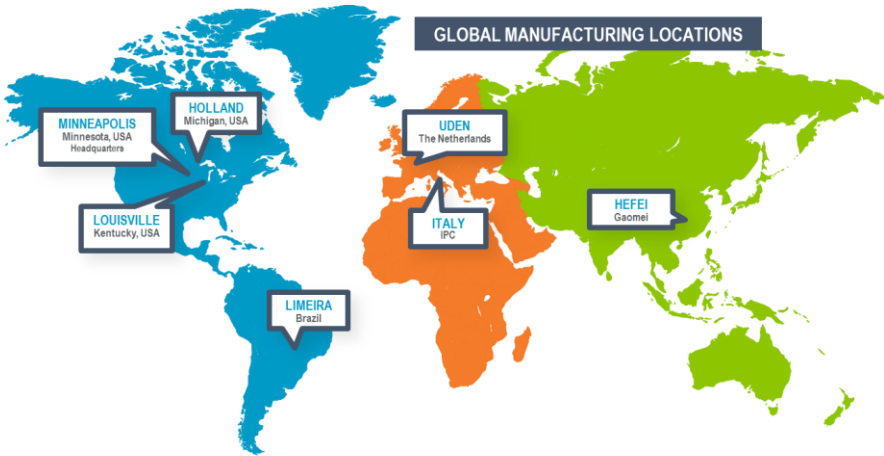
Introduction: Brian Miller

Sr. Manager – Enterprise Business Improvement

- Pharma/Med Device & Industrial Manufacturing Background

- 15+ years of experience in process improvement, automation, and data analytics

- Responsible for driving operational and supply chain efficiency through standard work, reporting, and automation

TENNANT®
COMPANY

Tennant Company: Overview

4,000+ EMPLOYEES

14 MFG PLANTS

40,000+ CUSTOMERS

300+ SALES REPS

400+ DISTRIBUTORS

100+ COUNTRIES

$1B SALES

330+ PRODUCTS

PRODUCTS
Commercial | Industrial | Vacuums | Pressure Washers | Coatings | Aftermarket | Tools | Recon

GLOBAL MANUFACTURING LOCATIONS

MINNEAPOLIS
Minnesota, USA
Headquarters

HOLLAND
Michigan, USA

LOUISVILLE
Kentucky, USA

LIMEIRA
Brazil

UDEN
The Netherlands

ITALY
IPC

HEFEI
Gaomei

RECON BUSINESS

NEW AND PRE-OWNED EQUIPMENT
Commercial and Industrial

GLOBAL DIRECT SERVICE
900+ Employees

PARTS AND CONSUMABLES
Batteries, Brushes, Squeegees, etc.

62% of Revenue

15% of Revenue

23% of Revenue

TENNANT COMPANY

6

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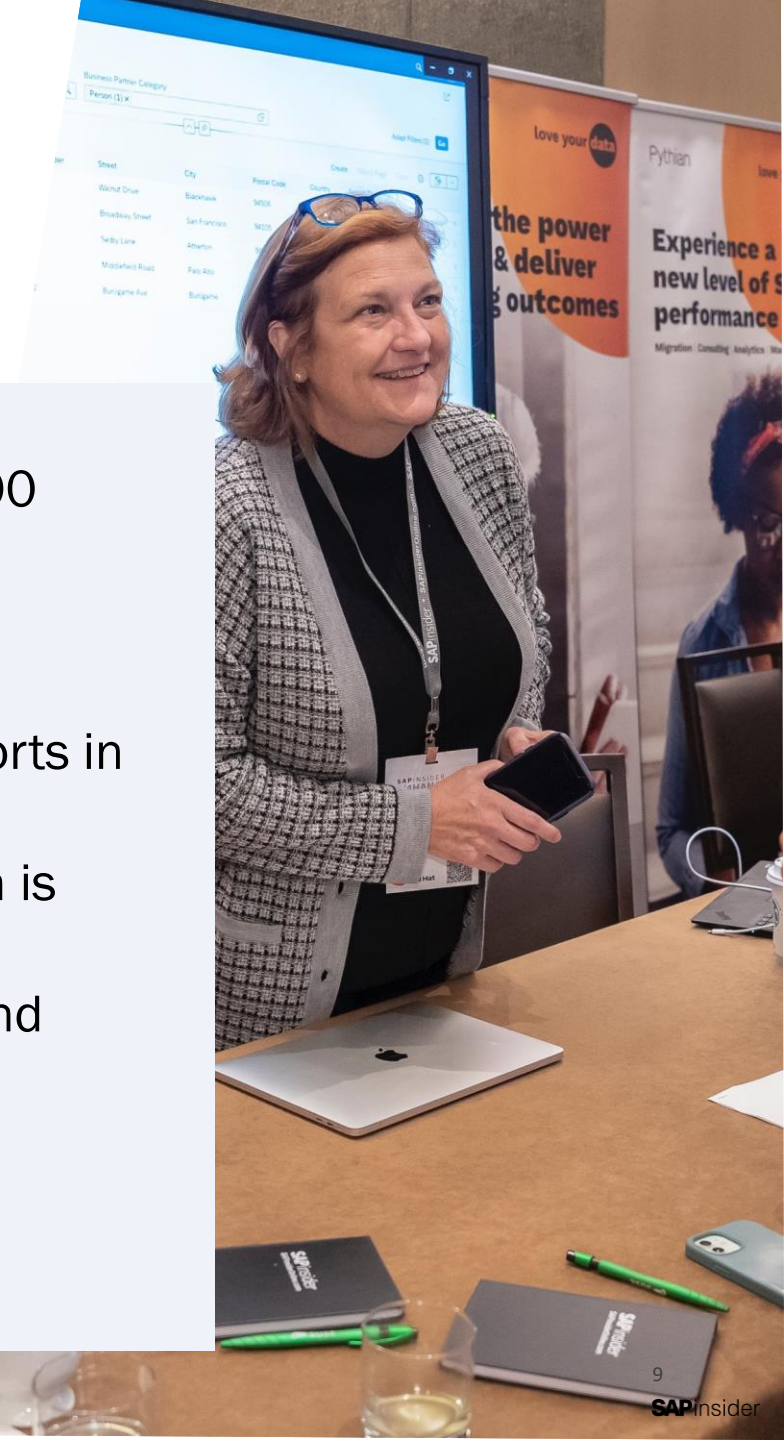# Live Demonstration

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How to Perform Operational Reporting When Running SAP

You need easy transparency of your operational processes to be able to measure and improve your supply chain performance:
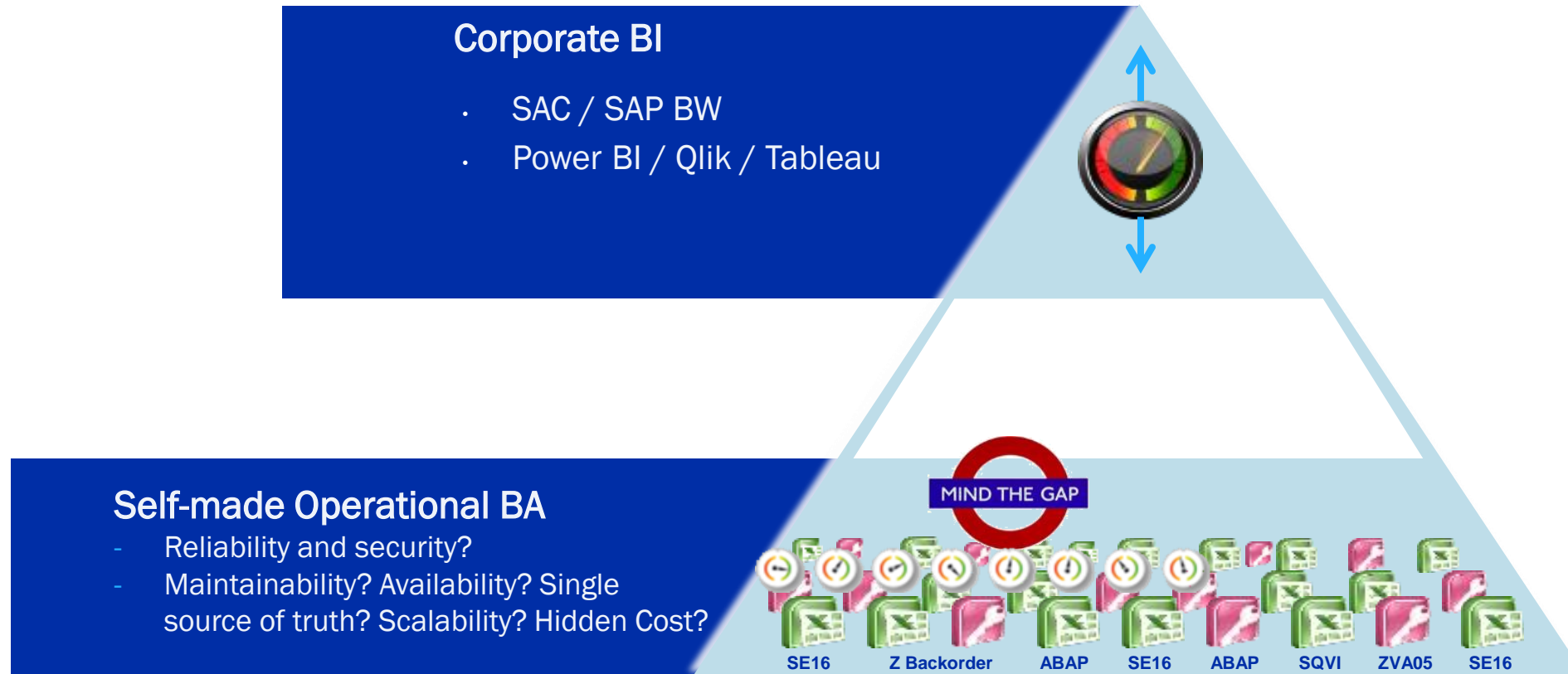
- Operational KPIs (performance)

- Root causes (preventive)

- Bottlenecks (reactive)

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The Challenge When Running SAP

- SAP is too complex to get information out (>200,000 tables in database)

- IT has too little capacity to build reports for the business (Z-reports)

- People spend too much time building their own reports in Excel/Access

- Lack of single version of the trust - what information is right?

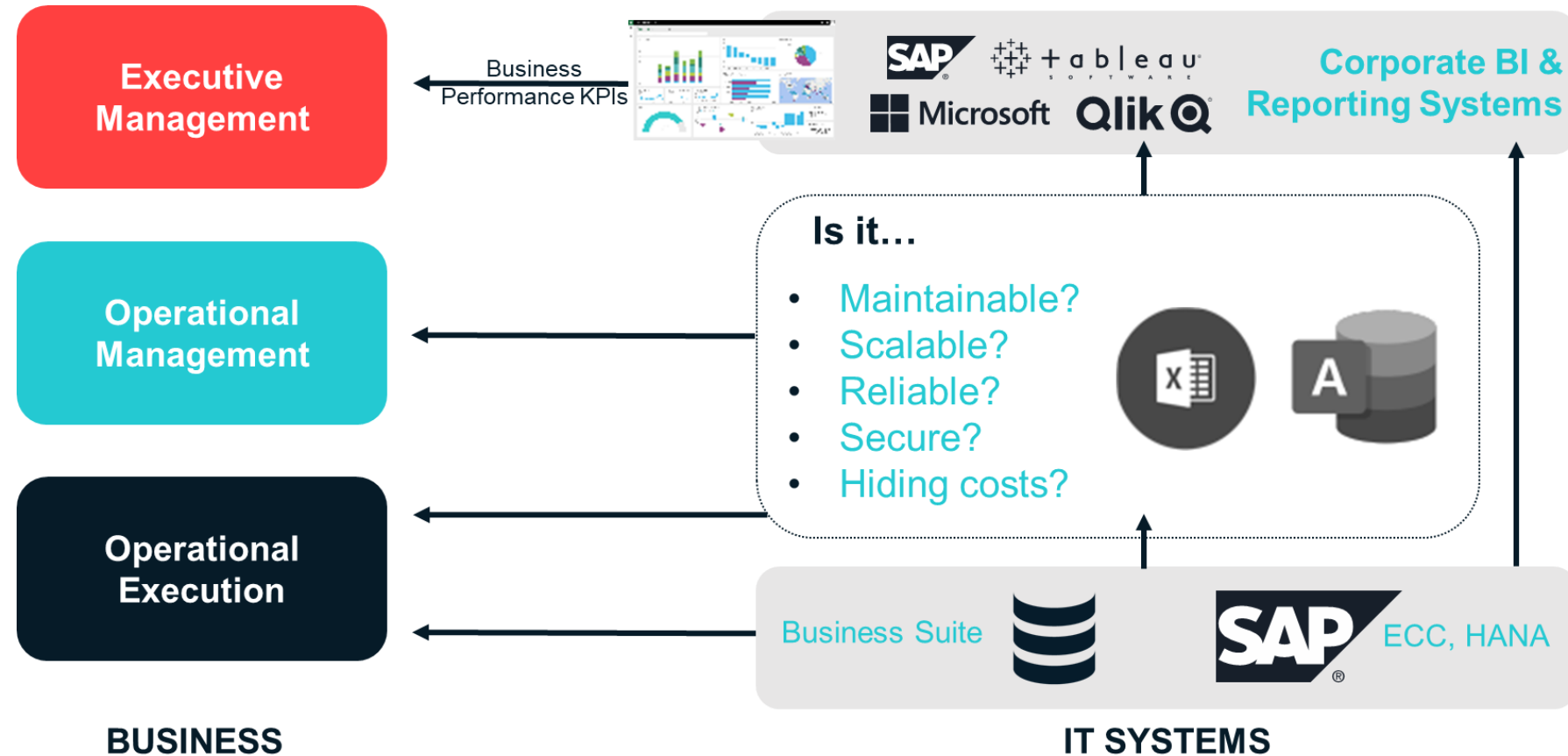- Missing alignment between management reports and operations
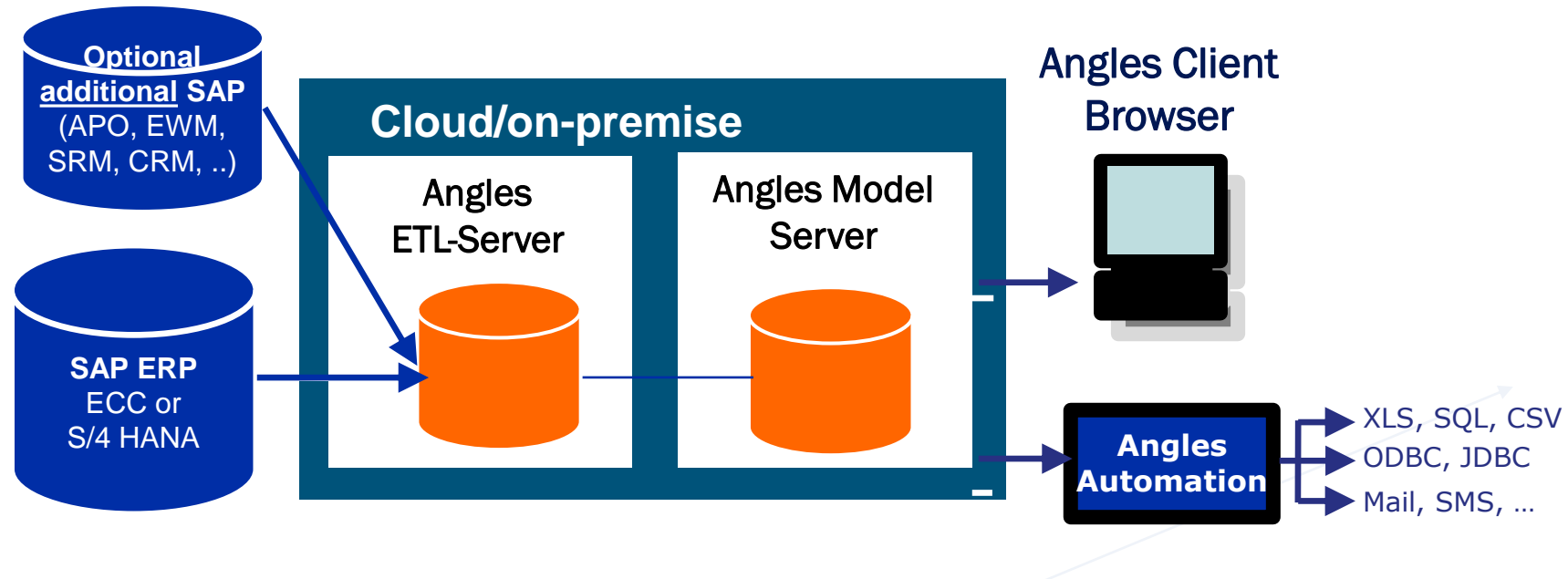
The Strategy to Execution Gap

Corporate BI

- SAC / SAP BW
- Power BI / Qlik / Tableau

Self-made Operational BA
- Reliability and security?
- Maintainability? Availability? Single source of truth? Scalability? Hidden Cost?

MIND THE GAP

SE16   Z Backorder   ABAP   SE16   ABAP   SQVI   ZVA05   SE16

What's really going on in all those spreadsheets?

MANAGE YOUR RISK

The Strategy to Execution Gap

Executive Management

Business Performance KPIs

SAP ∙ tableau SOFTWARE ∙ Microsoft ∙ Qlik Q

Corporate BI & Reporting Systems

Operational Management

Is it…

- Maintainable?
- Scalable?
- Reliable?
- Secure?
- Hiding costs?

Operational Execution

Business Suite ∙ SAP ECC, HANA

BUSINESS

IT SYSTEMS

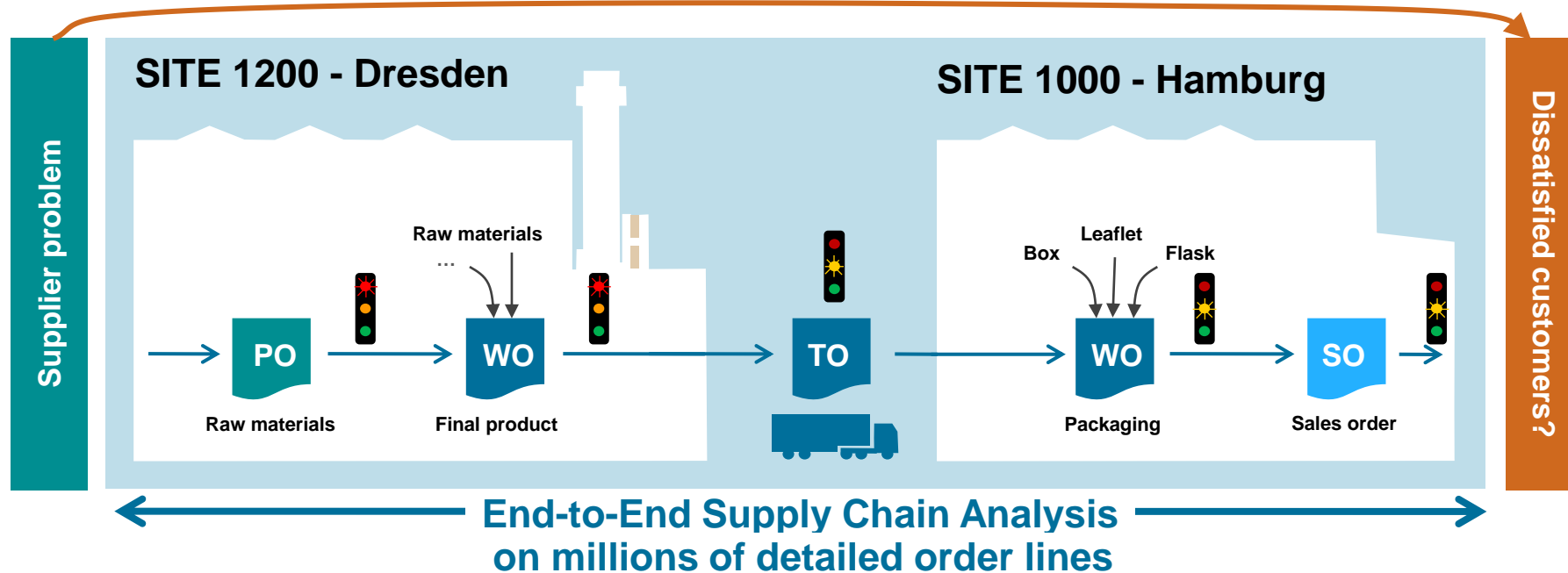# Angles for SAP – Architecture (simplified)

Angles for SAP – Architecture (simplified)

Characteristics of Angles for SAP architecture

- **Angles ETL:** Data extraction from SAP ERP using SAP-certified Function Module (fast and flexible, safe & secure)
- **Angles Server:** Built-in business process analytics, supply chain KPIs and SAP ERP knowledge (fully customizing 'aware' => automatic adaptation to customer specific SAP configuration)
- **Angles client:** Web browser (with hundreds of out of the box templates)
- **Angles Automation:** Automatic export, both push and pull (different protocols and outputs e.g., SQL, XLS, CSV, ODBC)
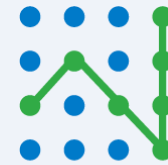
Supply/Demand Matching Algorithm

SITE 1200 - Dresden

SITE 1000 - Hamburg

Supplier problem

Raw materials
...

Box Leaflet Flask

PO — Raw materials

WO — Final product

TO

WO — Packaging

SO — Sales order

Dissatisfied customers?

**End-to-End Supply Chain Analysis
on millions of detailed order lines**

- Calculate consumption of independent requirements on basis of open/planned orders
- Link cross-company sales and purchase documents
- Simulate expected inventory/goods flow to visualise stock, supply and demand

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Demonstration

- How to build basic master data checks

- How to analyze your supply chain processes
    - Historical delivery performance
    - Backorders (past due & pollution)
    - Bottlenecks

- How to analyze excess stock and reduce inventory (e.g.,overplanned POs)

Angles
from insightsoftware

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Customer Case:
Tennant

Why Tennant Chose Angles for SAP

SAP

- Global usage by most factories and sales organizations in the world
- First go-live in 1999
- All core ECC modules: FI/CO, MM, PP, SD, WM
- Plan to move to S/4 HANA coming years

Angles for SAP:

- Go-live at Tennant in Q3 2022
- Data Extraction 1x per day (master data + transactional data) – 180GB, 800+ tables
- Power Users: 10 Globally
- Reports– 25+ and growing with daily refreshes

Why Angles & Why Now?

Problem: Flying Blind

Tennant had a number of basic operational questions that we did not have the tools to answer. SAP has the data but Tennant did not have the tools for the aggregation and analysis for dealing with the big datasets.

Core Operational Questions:
- At an aggregate level, what parts will be an issue over the next 6-8 weeks?
- What can we build with the parts on hand?
- Do we have more or less future shortages?

The lack of Planning visibility was causing:

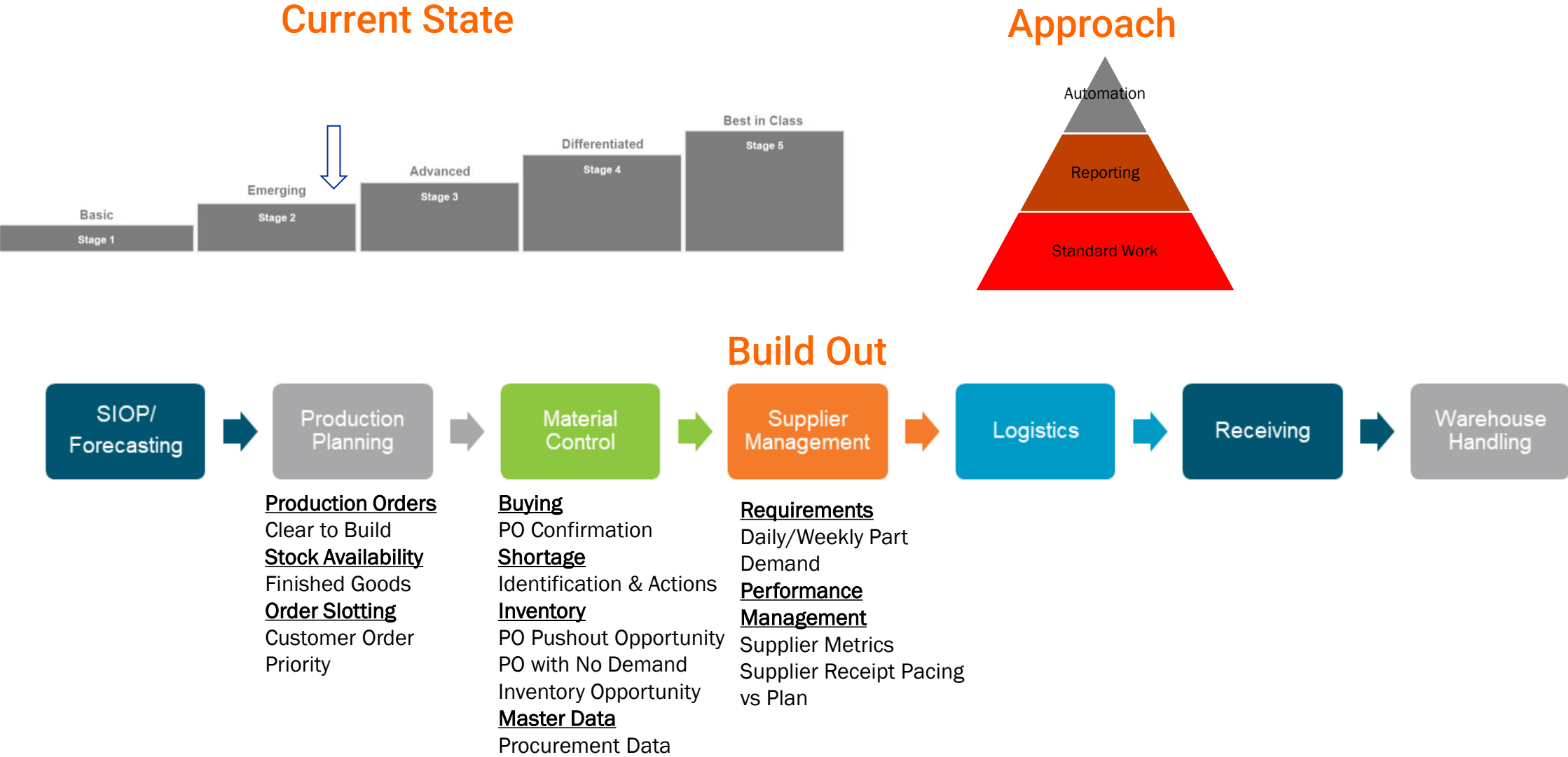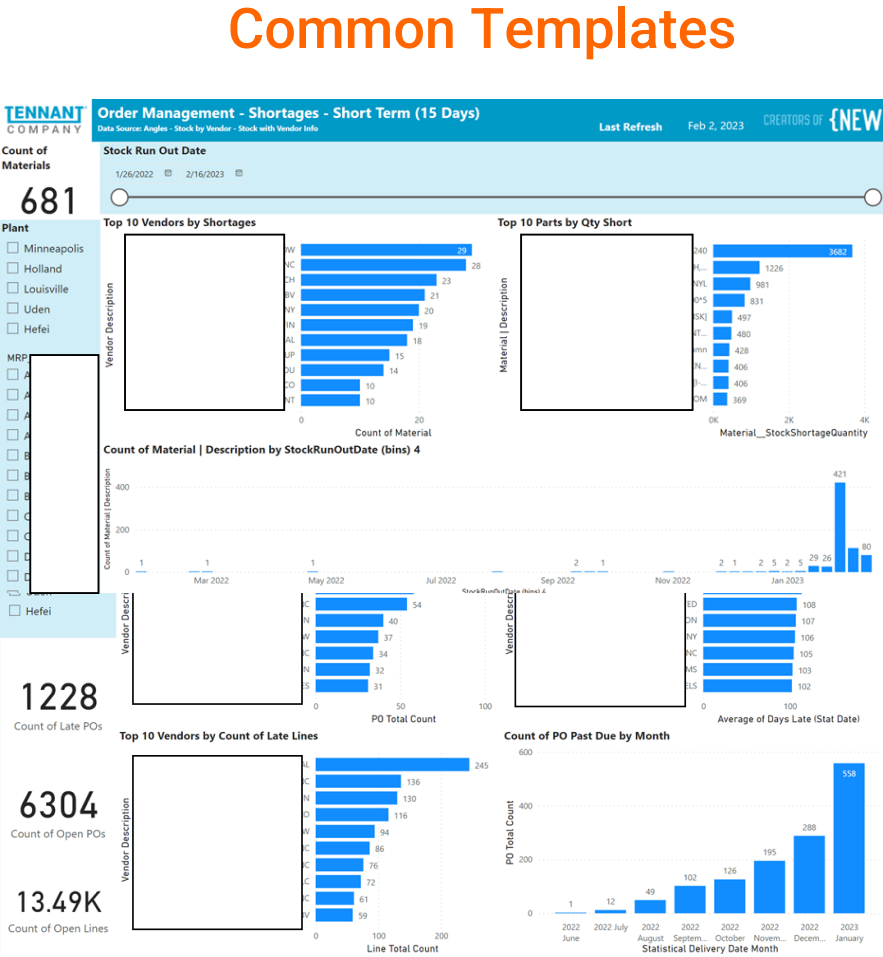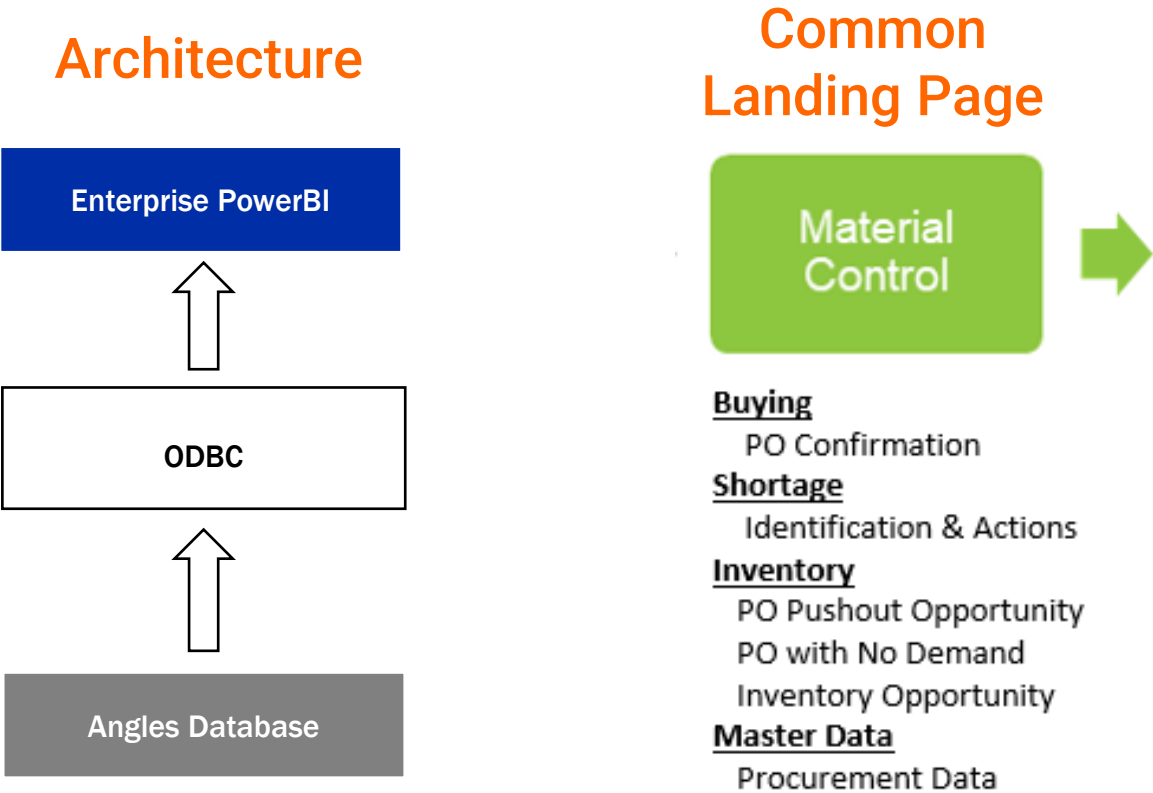**Production Interruptions** **Expedited Freight Costs** **Increased Labor Requirements for Fire Fighting** **Burned out employees**

How Tennant Uses Angles for Building an Operating System

Current State

Approach

Build Out

Production Orders
Clear to Build
Stock Availability
Finished Goods
Order Slotting
Customer Order
Priority

Buying
PO Confirmation
Shortage
Identification & Actions
Inventory
PO Pushout Opportunity
PO with No Demand
Inventory Opportunity
Master Data
Procurement Data

Requirements
Daily/Weekly Part
Demand
Performance
Management
Supplier Metrics
Supplier Receipt Pacing
vs Plan

How Tennant Pairs Angles with PowerBI

Architecture

Common Landing Page

Common Templates

Experiences and S/4HANA Preparation

Feedback

- Building reports in minutes vs. days allows quicker development cycles

Results

- Source of Truth, Management Friendly
- Enabling Accountability, Oversight

Recommendations

- After-Sales Support is key
- The best reporting in the world won't fix accountability and process issues

S/4HANA Prep

Standardize Process		Configuration Learning		The WHY behind Customization

Wrap Up

Where to Find More Information

Angles for SAP Page: Transform SAP Data into Actionable Insights

Customer Story: Morgan Foods International

On-Demand Webinar: How to Optimize your SAP Supply Chain Performance

On-Demand Webinar: How to Get a Clean, Up-To-Date SAP ERP System without Pollution

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Key Points to Take Home

- Improvement starts with:
  - Understanding your business processes
  - Transparency provided by operational + actionable KPIs (facts)
  - People motivated to learn and improve and take ownership

- Angles for SAP is high value 'asset' for companies that consider their SAP ERP system as the 'single version of the truth'

- Data quality is key for having:
  - Correct planning (forecasting, MRP)
  - Efficient and reliable execution
  - Facts you can trust (reporting)

- Software is just enabling, but organizational culture is key for real 'change'

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Thank you! Any Questions?

Stop by Booth #1215 to learn more!

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