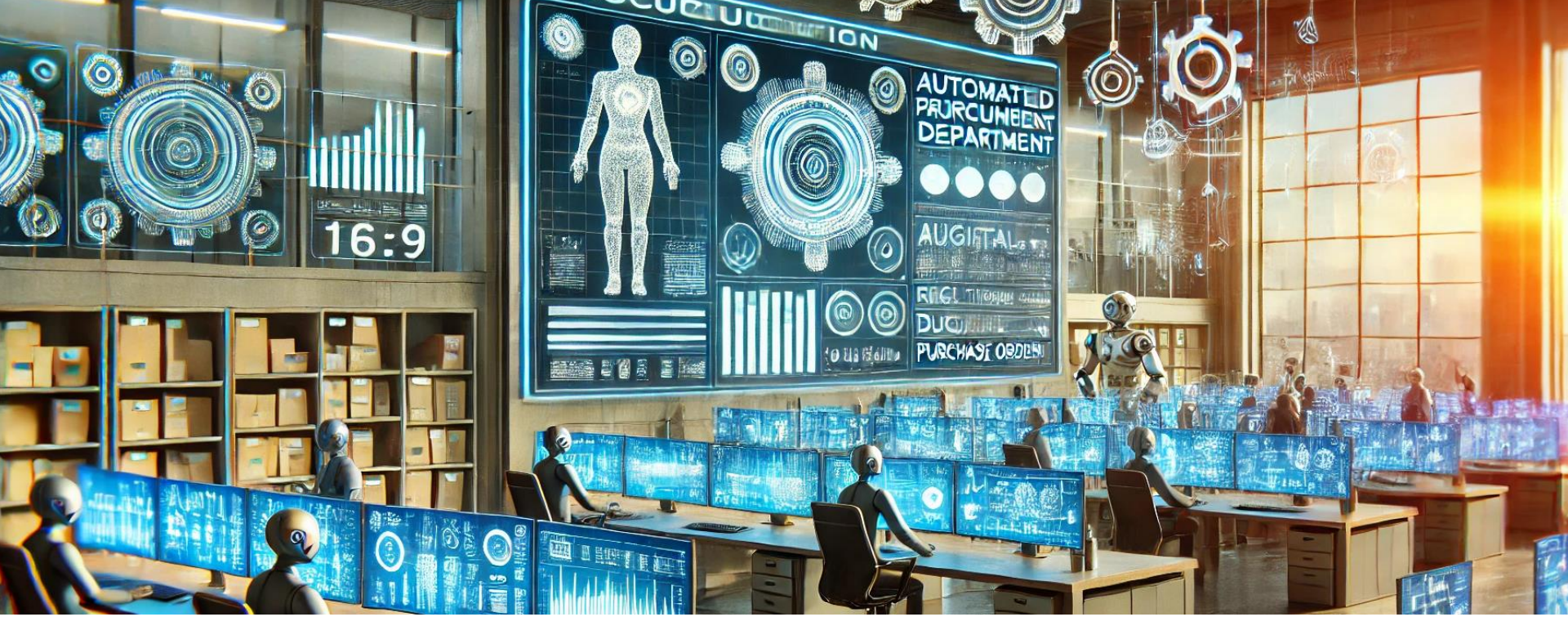


HORN & COMPANY

Purchase-to-Pay-Optimization with Process Analytics

Reducing costs & inventory levels with efficient and automated processes

Düsseldorf 2024

Purchase-to-Pay as “Efficiency Driver” of the Source-to-Pay Process

Optimization Topics within Source-to-Contract and Purchase-to-Pay Process

Source-to-Contract Process

Demand Ident. → Demand analysis → Sourcing Strategy → Tendering Procedure → Supplier Selection → Negoti-ation → Contrac-ting

Target: Expense Reduction

Cost management starts with effective sourcing execution, which is best facilitated by clear spend visibility and source-to-contract tools

Levers

- Supplier Manage-ment
- Contract Lifecycle Mgmt.
- Spend Manage-ment
- Governance & Compliance
- …

Purchase-to-Pay Process

Purch. Requisition → Release Requis. → Create PO → Send PO → Receive Confirm. → Delivery Note → Goods Receipt → Quality Control → Invoice Receipt → Clear Invoice

Target: Reduction of Process Costs & of Working Capital

Costs of the process as well as for Working Capital are driven by various efficiency and stock levers of the PtP process

Levers

- Adjustment Master Data
- Process Optimi-zation
- Digital-ization Interfaces
- System Usage Optimizat.
- Change Process Contents
- Complexity Reduction Potentials
- Automation Process Steps
- Increase Transpar-ency

With the right measures, significant WOC and efficiency potentials can be realized

Extract of typical H&C project results

Increase in process efficiency

- **65%** **FTE reduction** in disposition and stock accounting
- **75%** of the purchase orders are created via **auto disposition**
- **80%** of the invoices are processed via **automated invoice checking**

Reduction of the working capital

- **40%** Increase of the **Days Payables Outstanding** (DPO)
- **35%** **Reduction of stocks** with simultaneous increase in availability
- **99%** Of the **cash discounts** are taken automatically

Increase in process quality

- **85%** **Reduction of manual changes of** the purchase order
- **90%** **Reduction of stock-outs** for critical materials
- **95%** Filling level of mandatory fields for **master data and parametrization**

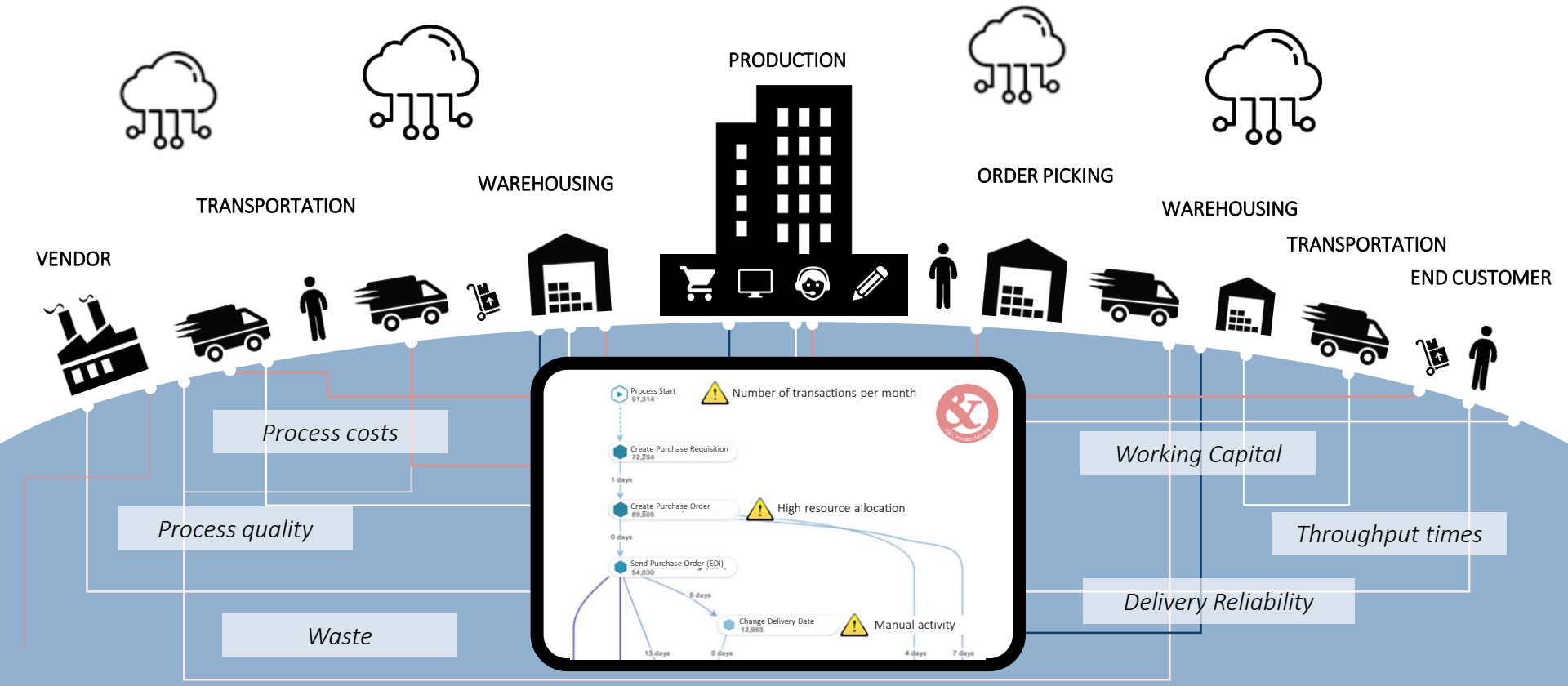
With the H&C approach for Purchase-to-Pay-Optimization, high P&L effects can be achieved – in the short run as well as permanently through sustainable implementation

Purchase-to-Pay-Optimization with Process Analytics

A	The H&C Process Analytics Approach for Purchase-to-Pay
B	Selected Project Examples of PtP Optimizations
C	The H&C experience and contacts

We create data-driven transparency – End-to-End over the whole value chain

As an "X-ray machine" H&C Process Analytics quickly identifies cost drivers along the entire process chain



Process Analytics is based on data from Operational Systems – Not on Opinions

Core Idea

Data Extraction & Preparation

ERP System [e.g., SAP R/3, S/4]

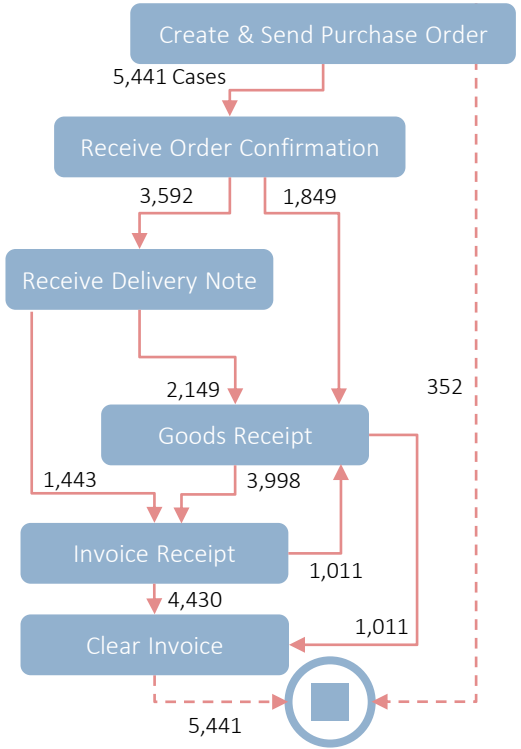
Operational Systems

- Purchase Orders
- Delivery Documents
- Approval Workflows
- Materials and Stock Planning
- Messages Sent to Suppliers
- Supplier Invoices
- Change-Logs
- Master Data [vendors, material,…]
- …

Add. Systems [Dispo tools like Logomate, WMS, …)]

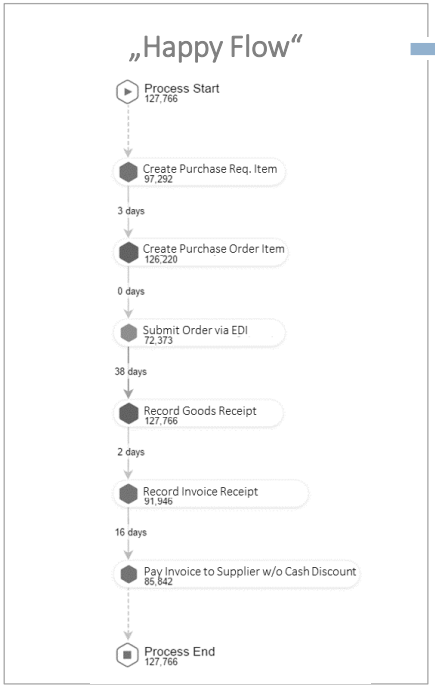
Visualization

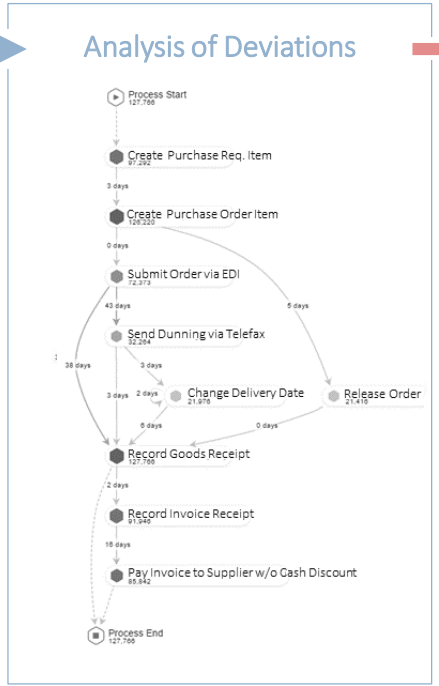
Detailed Analysis

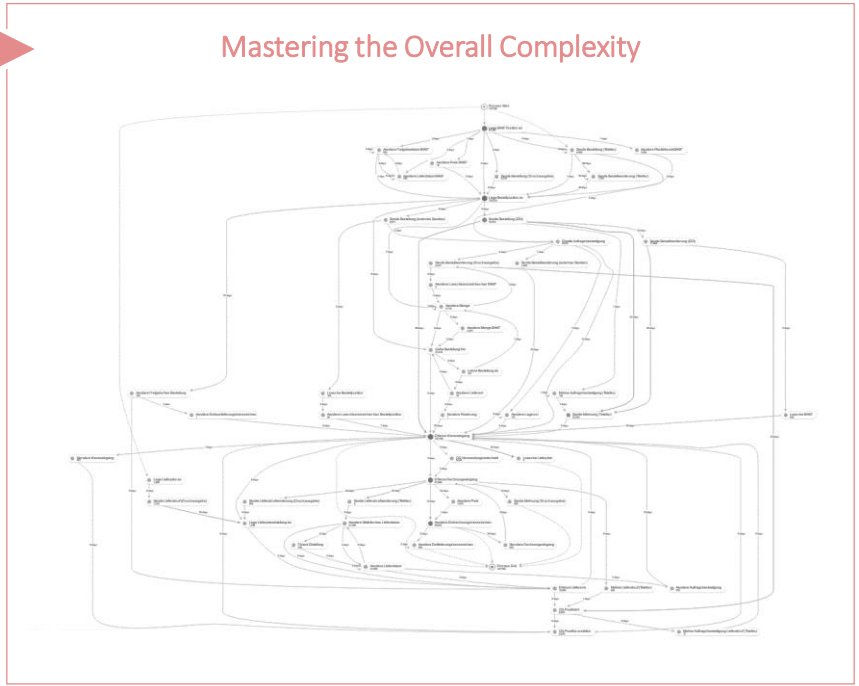


Process Analytics empowers mastery of entire Process Complexity

Process Analytics highlights the drivers of complexity and reveals how to optimize the current situation







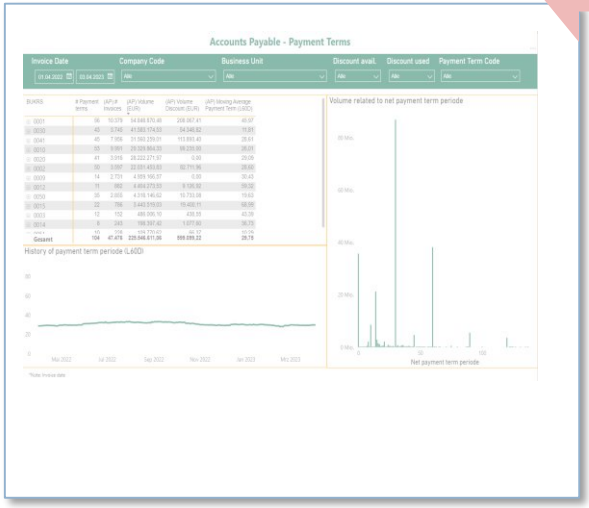
Optimization through combination of process, financial & inventory data

Overview of the H&C approach

Financial Data

- Payment terms
- Payment behavior
- Quantitative simulations

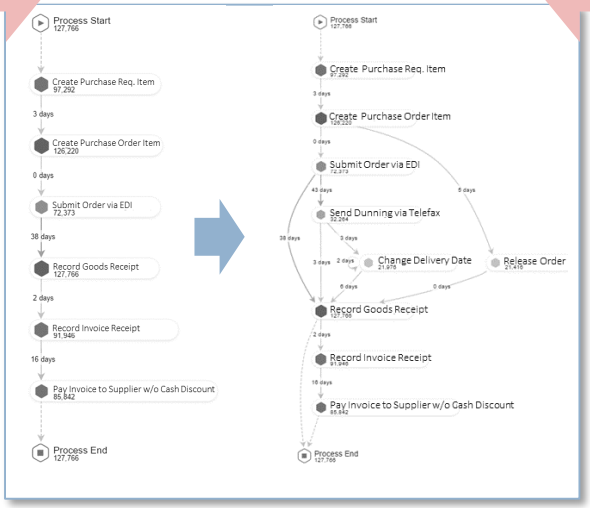
At single invoice level



Process Analysis

- Transparency over processes and behaviour
- Detection of bottlenecks and lost time
- Across all processes, e.g. PtP, OtC, …

At purchasing/sales document level



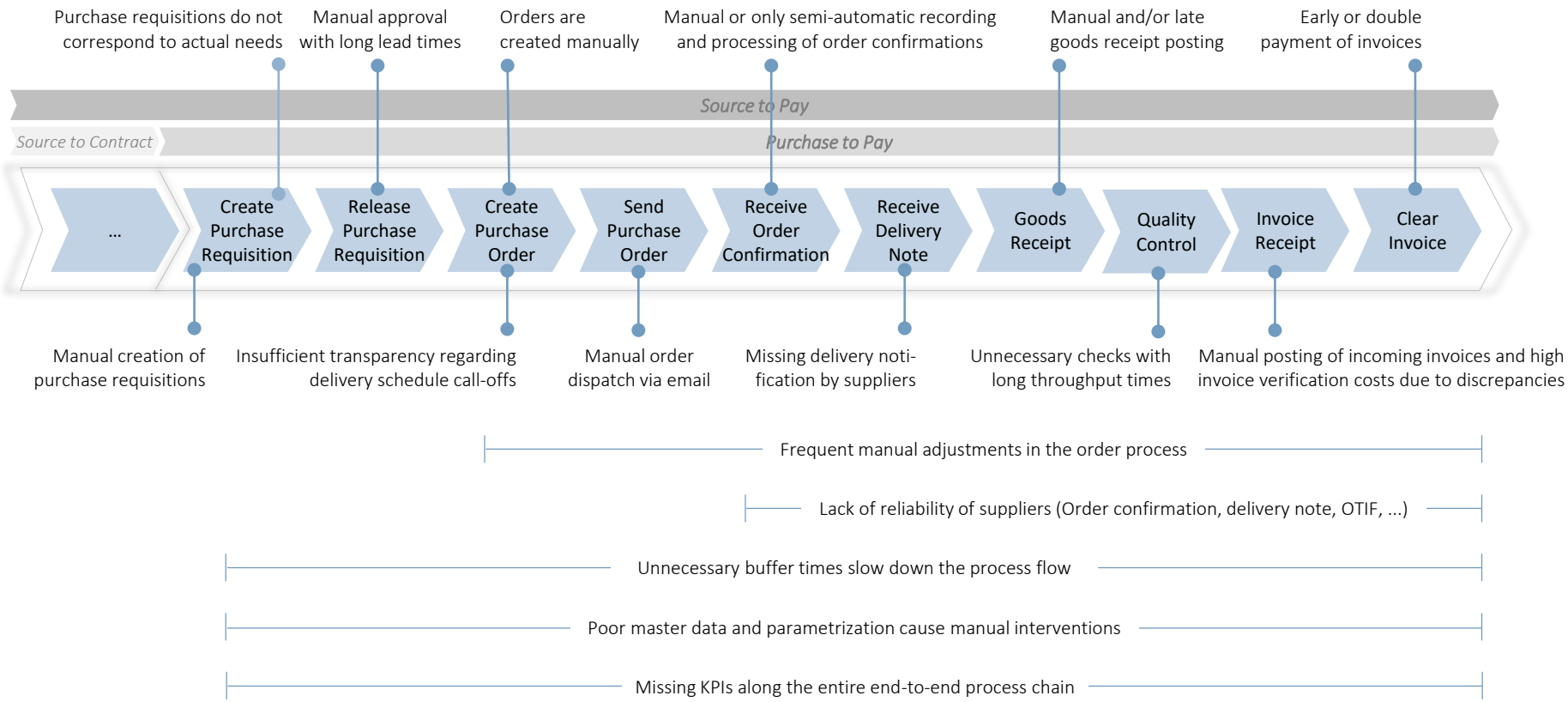
Inventory Analysis

- ABC/XYZ classification
- Stock range and dead stock analyses
- Automatic identification of weaknesses

For every single material number

Purchase-to-Pay-Processes have many levers for improvement

Exemplary areas where H&C process analytics provides the facts and figures to improve efficiencies



Purchase-to-Pay-Optimization with Process Analytics

A	The H&C Process Analytics Approach for Purchase-to-Pay
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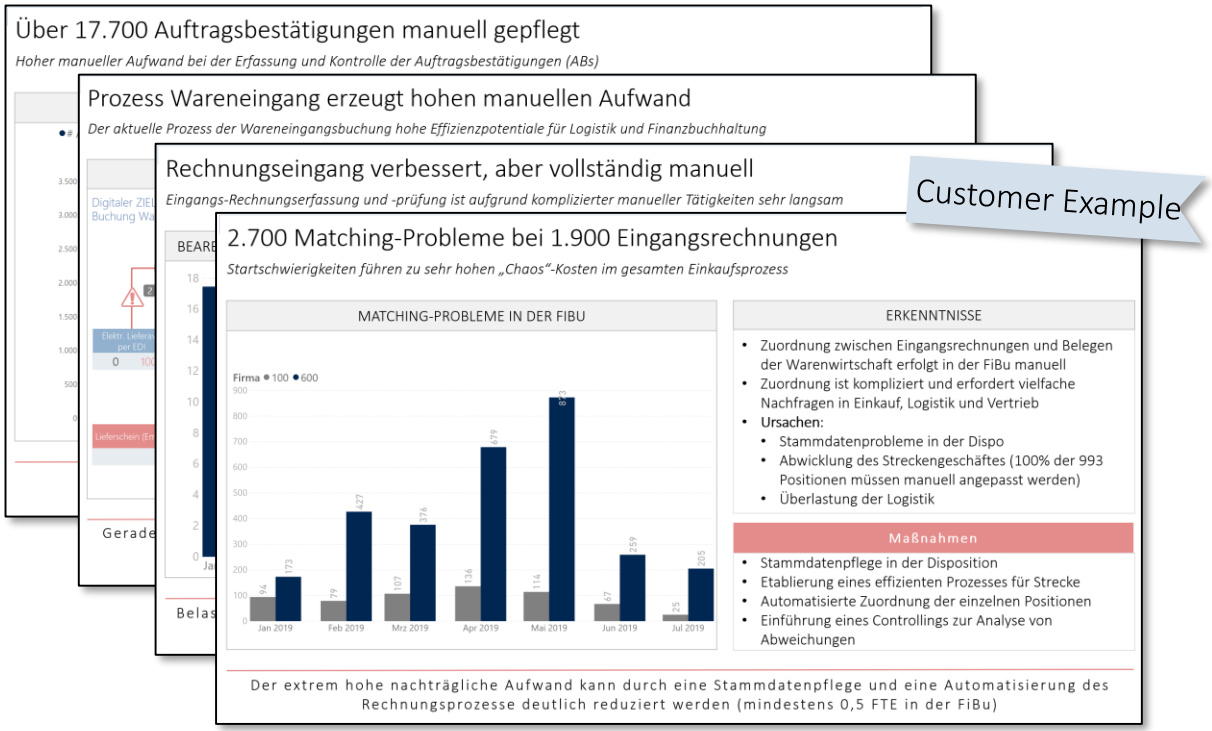
Project Example: Identification of automation potentials reduced process costs

Development of a comprehensive automation program for PtP through process analytics



Customer Example for automation measures in the PtP-Process based on process analytics results

- Comprehensive program with over 42 measures to increase automation throughout the whole process
- Detailed measure fact sheet with findings during process analysis and evaluation of potential

35% **Reduction of FTEs over the whole P2P process** by releasing automation potentials

Set up of a automation program on a large scale for the PtP-Process supported by the findings from process analytics project had a significant impact on process costs

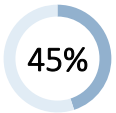
Project Example: ERP systems are often poorly configured

Selection of typical ERP parameters that have to be adjusted

Example: Plant data for material – SAP Master data (MARC)		
Field	**Description**	**Typical problems**
MINBE	Reorder point	Too high or too low. Insufficient consideration of delivery times and fluctuations
EISBE	Safety stock	Safety stock is often not used (but in the reorder point). Set too high. Inaccurate demand forecasts.
BSTMI	Minimum lot size	Minimum lot size too high. Lack of adaptation to changes by suppliers
BSTRF	Value for purch. order quantity	Too low / too high. Insufficient consideration of product packaging
BESKZ	Procurement type	Incorrect classification results in a wrong purchase behavior
PLIFZ	Planned delivery time	Under or over estimation of the actual delivery time. Lack of consideration of delivery time variations
WEBAZ	Goods receipt processing time	Under or over estimation of the actual processing time. Insufficient flexibility in the event of fluctuations
	...	

Customer Examples for poor master data and ERP parametrization

- No tools available for correct configuration and maintenance of the parameters
- Low transparency regarding order, consumption and stock history
- No combined inventory and process view to adjust parameters

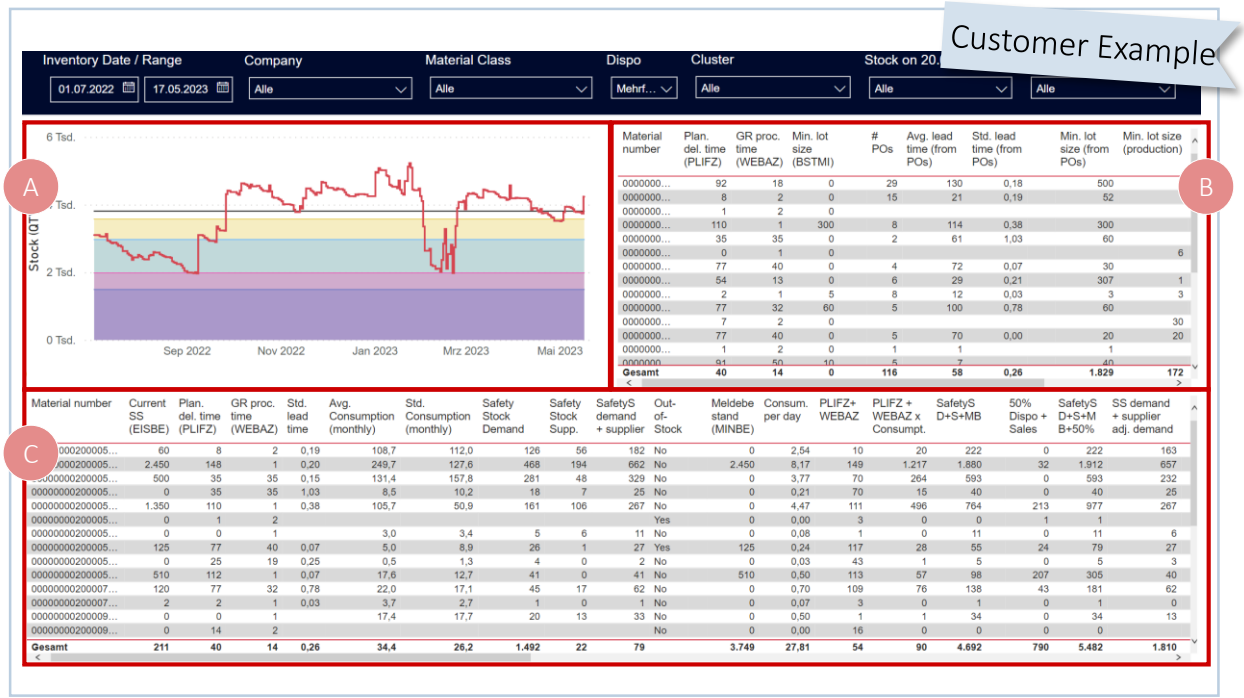


Reduction of stock levels and increase of auto disposition

Operational dispatchers are often not supported by the system or even work against the system, which leads to a lack of transparency and suboptimal ordering processes. Solution via process analytics is possible

Project Example: Adjustment of disposition parameters for increasing automation

Structured comparison between system parameters and lead times from process analytics



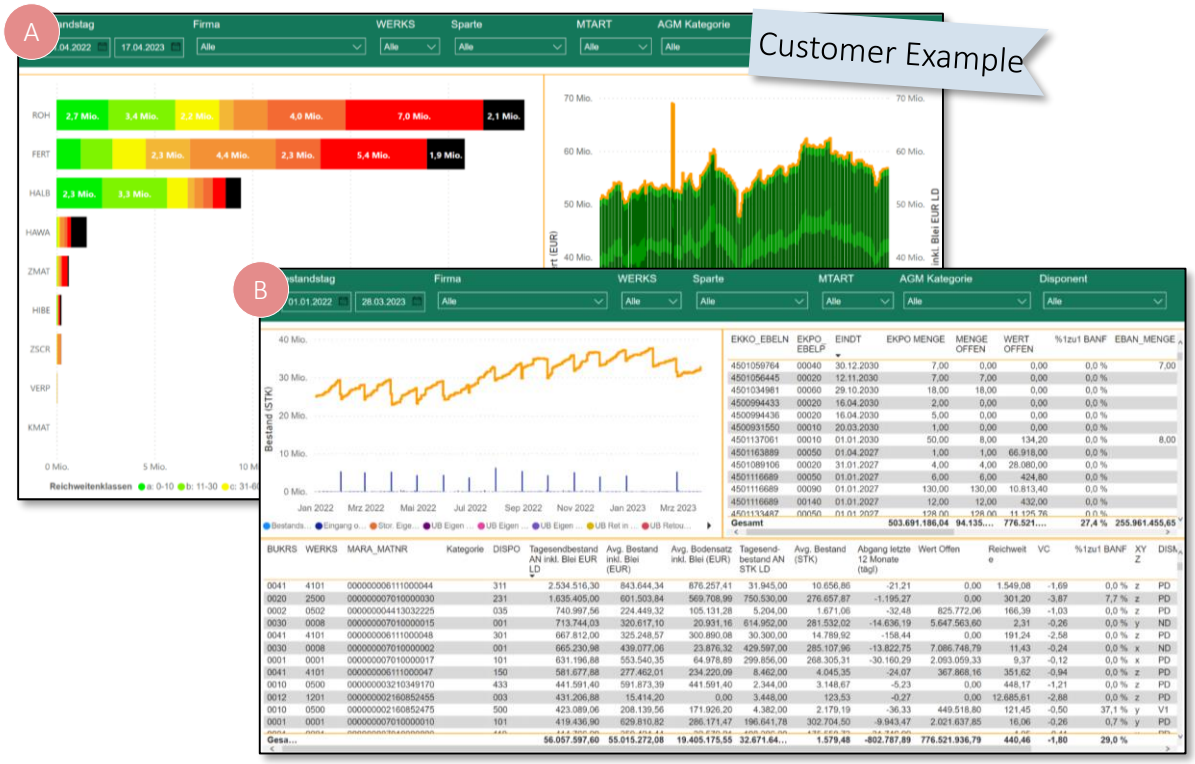
- **A** Daily updated stock levels over the last few months with the minimal stock level for different time periods
- **B** Calculation of various KPIs such as delivery times or minimum order quantities from historical purchasing documents through proc. analytics
- **C** Current system parameters from live system and additional suggestions for adjustments based on different optimization models

Reduction of FTEs within disposition
by utilizing auto-disposition

A higher degree of automation in the Purchase-to-Pay process can be achieved by adjusting the system parameters based on the results form process analytics

Project Example: Stock optimization by high transparency on material level

Real-time Dashboards with drill-downs through aggregation levels create high transparency on daily stock levels



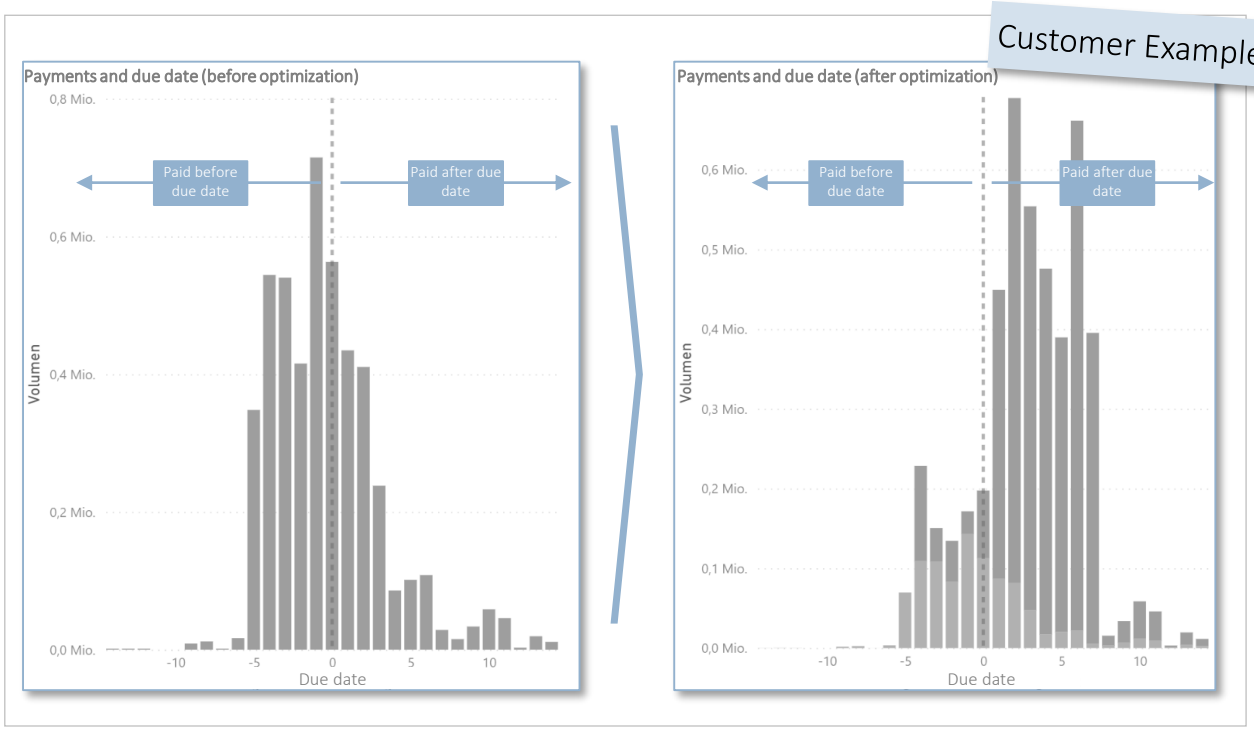
- **A** Aggregated view on stock volume in different reach classes by material classes. Additional overview of the development of the daily stock levels over time by different entities.
- **B** Detailed view of daily stock level development over time on material number level. Providing KPIs e.g. variance of consumption in the last 12 months for deep dives on specific material numbers. This view is complemented by the open orders for the materials.

40% **Reduction of stock levels** and simultaneous increase of availability

High transparency on daily stock levels and open purchase orders combined with powerful KPIs enable sustainable reduction of stock levels

Project Example: Working Capital reduction through PtP optimization

Additional transparency over payments on invoice level show levers for Working Capital optimization



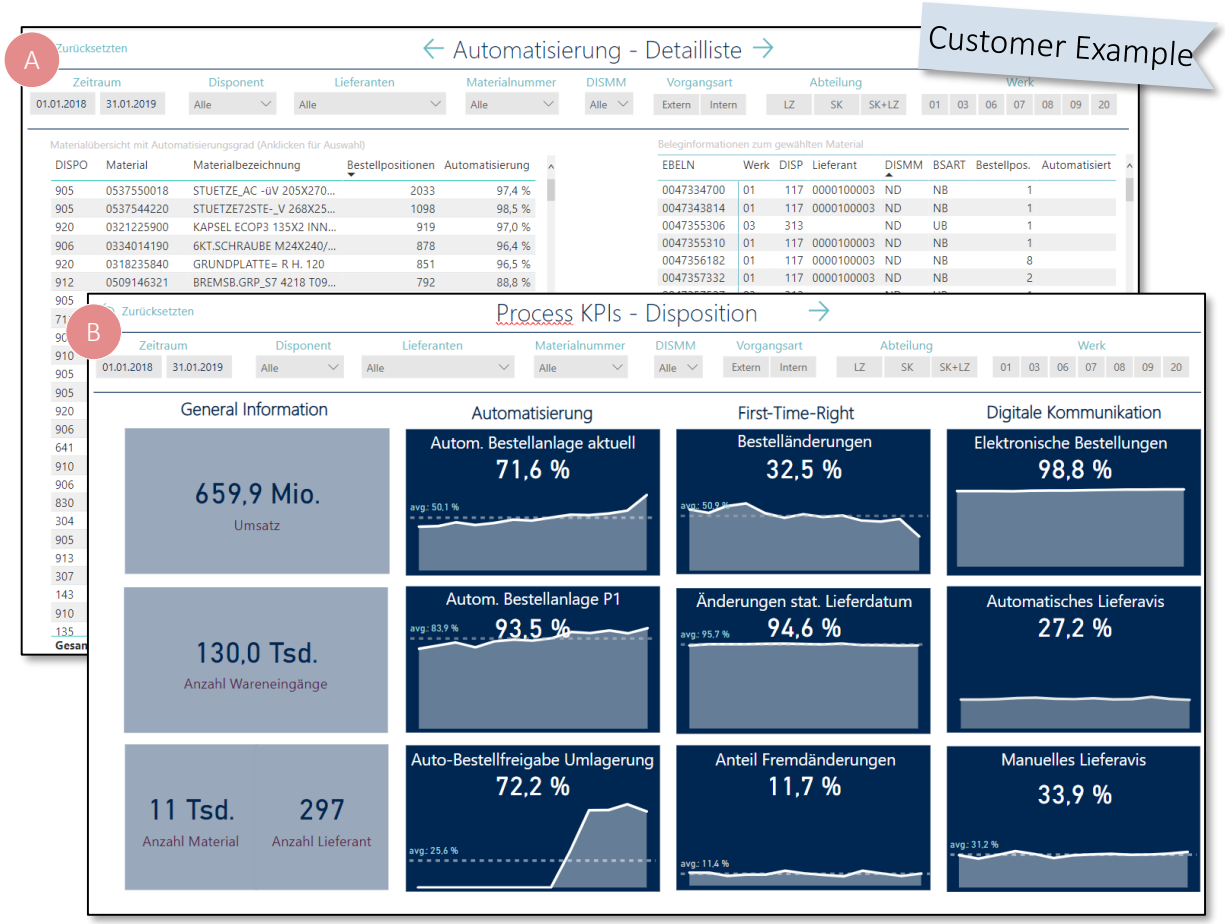
- In the initial situation the payment run was done much too early due to organizational issues and a lack of transparency about payment terms
- Changing this to rule-based, automated payment runs leads to a high reduction of working capital.

Reduction of early payments by adjusting the payment process

The process analytics results can be used directly to prevent discount periods from expiring, payment deadlines can be increased, and transparency about payment terms can be used for supplier negotiations

Incorporation of Process KPIs into a modern near-time dashboard solution

Customer example: Purchase-to-Pay-Process KPI dashboards with multiple views on different levels



DESCRIPTION

Customer Example for a Process Dashboard with views on different levels

- **A** Comprehensive Top Mngt. view for highly aggregated KPIs in different parts of the Process
- **B** Detailed view on manual efforts per organizational department/ on employee level for each process step

Realizing potential from a variety of implementable individual measures

Project example Measures Settlement processes

Fields of action are addressed through a broad portfolio of measures

Overview

ADJUSTMENT MASTER DATA

- Update purchase prices materials
- Update of payment conditions in ERP
- Adjustment min. and max. stocks
- Adjustment of stored rounding factors
- Adjustment shipping plants
- Adjustment of replenishment times
- Introduction factory info records
- Parameter adjustments shipping schedules
- Update planned delivery times customers
- Reduction of incoming goods processing time
- Care shipping days
- ...

DIGITALIZATION INTERFACES

- Introduction of Web EDI for suppliers
- Establishment of EDI order confirmations
- Connection to EDI invoices
- Optimization of interfaces webshop to ERP
- Expansion of EDI connection customers
- Expansion of use of shipping notifications
- Expansion EDI order transmission
- Establishment of EDI controlling
- Introduction online configurators
- Expansion of email invoicing
- Adjustment delivery date maintenance
- ...

CHANGE PROCESS CONTENTS

- Optimization of local stocks
- Consolidation order quantities
- Adaptation of disposition methods
- Expansion of product group planning
- Consolidation of customer orders
- Cross-plant material
- Adaptation of disposition strategy
- Reduction of unnecessary stock transfer
- Optimization of ordering rules for subsidiaries
- Extension of supplier evaluation
- Adjustment of signature regulation
- ...

AUTOMATION PROCESS STEPS

- Automatic booking of WEs
- Automation of order approvals
- Recording order confirmations
- Automated creation of loading lists
- Automation Order Full Truckloads
- Order change in case of order changes
- Automatic conversions BANFs
- Automatic ordering according to quotas
- Automatic invoice generation
- Creation of delivery note on the dispatch date
- Partial automation of material master system
- ...

PROCESS OPTIMIZATION

- Update discount process
- Adjustment of price maintenance process for special articles
- Elimination of bottlenecks in invoicing
- Prevent orders without BANF
- Systemic support planning process
- Standardization of the returns process
- Relocation of packaging process steps
- Acceleration of goods receipt posting
- ...

SYSTEM USAGE OPTIMIZATION

- Automatic assignment of shipping plant
- Automatic route assignment
- Reduction of EDI delivery blocks
- Optimization of article search offer process
- Introduction material availability check
- Introduction of automatic production stops
- Systemic tracking of quota arrangements
- Use of systemic forecasting functions
- ...

COMPLEXITY REDUCTION

- Consolidation of unnecessary product variants
- Reduction of the supplier portfolio
- Reduction of processing variants Procurement
- Unification of disposition procedures
- Unification of payment terms for customers
- Simplification of payment terms for suppliers
- Reduction of individual customer processes
- Standardization of return rules
- ....

TRANSPARENCY INCREASE

- Building dashboards operational process KPIs
- Price controlling product changes
- Establishment of customer profitability controlling
- Set up incoming invoice controlling
- Introduction of outgoing invoice monitoring
- Establishment of delivery reliability reporting
- Dashboard finished goods for collection
- Development of discount controlling
- ...

- Many implementable and often directly effective individual measures
- Overall effect of the measures leads to sustainable and relevant Profit & Loss effect

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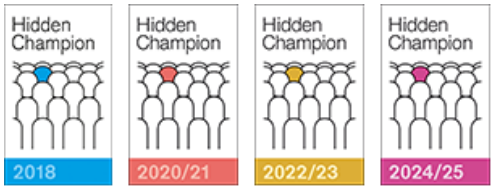
Horn & Company: Experienced, pragmatic and high implementation competence

Company profile

Positioning	Top-management-consultancy, founded 2008 – i.a. McKinsey, Roland Berger, Droege
Focus	Strategy – **Performance improvement** – Corporate Restructuring – Digital transformation
Industries	**Industrial goods** – Automotive/Special Vehicles – Consumer goods – Process Industries
Clients	Corporate groups, Large SMEs, family businesses
Consultants	**> 250 highly-skilled consultants**, including 45 partners/associate partners
Differentiation	P&L focus – digital/analytics expertise – implementation
Growth	Merger in 2023 with CON MOTO PART OF HORN & COMPANY -> Addition of extensive SSC and operations experience
Awards	

Rang	Beratung	Punkte
1	Horn & Company	427
2	McKinsey & Company	403
3	Boston Consulting Group	394
4	Bain & Company	388
5	Oliver Wyman	383

Your Contacts for Data-driven Purchase-to-Pay Optimization at H&C

Overview and Contact Information

Dr. Philipp Herrmann
Partner

Dr. Matthias Georg Will
Principal

Experience	▪ Founder of H&C Process Analytics ▪ Dipl.-Kfm. , Dr. Business Informatics ▪ 15+ Years of Process Optimization Experience	▪ Head of CC Process Analytics ▪ M. Sc. Economics, Dr. habil. Management ▪ 10+ Years of ERP, BI and Process Opt. Experience
Areas of Focus	▪ Process Analytics ▪ Working Capital Optimization ▪ Process Digitalization	▪ Process Analytics ▪ Purchase-to-Pay and Inventories ▪ S/4HANA Transformation

HORN & COMPANY

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