

FUTUROOT

Procure-to-Pay Process Mining

43,880 Cases · \$200.1M Process Value · SAP ECC



The Context

Anadolu Efes is one of Europe and the Middle East's largest beer and soft drink producers, headquartered in Turkey with operations across multiple geographies and company codes. As part of a continuous improvement initiative, Anadolu Efes engaged Percipere Consulting to deliver a rigorous, data-driven assessment of its end-to-end Procure-to-Pay (P2P) process using the FUTUROOT process mining platform.

The engagement focused on Purchase Order (PO) changes during Q1 2024, covering data from the SAP ECC QA environment across four purchasing organisations, multiple plants, and a portfolio of key vendors. With over 43,000 cases and \$200M in process value in scope, leadership needed an objective, transaction-level answer: are procurement workflows operating as designed, or have deviations and control gaps become normalised practice?

Conventional periodic reviews and user-reported issues had left the following questions unanswered — questions that manual sampling alone could never reliably resolve.

The Challenge: Evidence vs. Assumptions

Invisible Bottlenecks	Significant delays between Goods Receipt and Invoice Receipt were occurring across tens of thousands of cases with no mechanism to quantify the cycle-time impact or isolate root causes.
Workload Concentration Risk	A single user ID was handling the majority of Invoice Receipt activity — a dependency that was invisible without transaction-level analysis, creating a single point of failure and an audit control vulnerability.
Approval & Conformance Gaps	The PO Released (approval) step was absent across a significant proportion of the process population, and PO price and quantity modifications post-approval were occurring with no re-approval gate and no financial quantification.

At a Glance: FUTUROOT Impact Metrics

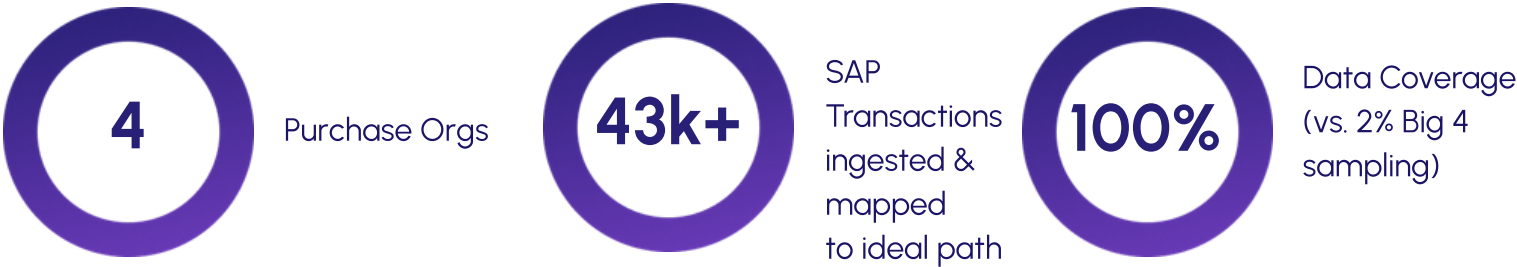
Metric	Performance
Process Focus	Procure-to-Pay (P2P) — PO Changes
Data Period	Q1 2024 (1 Jan – 31 Mar 2024)
Total Cases	43,880+ P2P cases analysed
Total Process Value	\$200.1M (USD) across all cases
Average Cycle Time	7.4 days end-to-end
Conformance Rate	34.35% — significant deviation gap

Largest Bottleneck	6.4 days: Goods Receipt – Invoice Receipt
Invoice Receipt Concentration	19,867 cases handled by a single user
SoD Violations Detected	5 segregation-of-duty violation cases
Automation Savings Potential	\$546.97K identified (PO + IR automation)
Coverage vs. Manual Audit	100% of transactions vs. sample-based review

The Solution: 100% Transaction Intelligence

FUTUROOT was deployed via its SAP ABAP Offline Extractor — an encrypted, non-intrusive program that extracted approximately 2 GB of raw SAP data from the Anadolu Efes QA environment across 10 key tables (EKKO, EKPO, EKBE, MSEG, CDPOS, and others). The data was ingested into FUTUROOT, where a full event log was constructed and every case mapped against the configured ideal P2P path.

This system-based approach enabled the team to shift from reactive investigation to exception-led, prioritised analysis. Every deviation was classified by type (Missing Activity, Additional Activity, Invalid Path), quantified by case count and USD value, and attributed to specific vendors, plants, purchase organisations, and individual users.



Key Findings

Process-Level Conformance Summary

PROCESS / ACTIVITY	CASES	CONFORMANCE	CYCLE TIME	RISK
PO Created → Goods Receipt → Invoice Receipt (Most Frequent Variant)	12,087 (27.5%)	Core path — no PO Release	6.8 days	HIGH
Goods Receipt → Invoice Receipt (Critical Bottleneck Step)	20,092 distinct	34.35% overall rate	6.4 days	HIGH

Conformant Cases (Ideal Process)	9,910	41.91% conformance	7.7 days	MEDIUM
Non-Conformant Cases	13,730	58.09% deviating	9.3 days	HIGH
SoD Violations	5	Segregation of Duty breach	—	CRITICAL
Rework Cases	1,790 (4.08%)	Re-processed cases	17.7 days	HIGH

Process-Level Conformance Summary

ACTIVITY / TRANSITION	DEVIATION TYPE	CASES	VALUE / IMPACT
Goods Receipt → Goods Receipt	Invalid Path	18,871 (77% of violations)	\$200.1M process exposure risk
PO Created → Invoice Receipt (no Goods Receipt)	Invalid Path	~6,900 cases	Invoice without GR — compliance gap
PO Item Price Increased (post-approval)	Additional Activity	3,569 events 928 cases	Unauthorised price modification
PO Item Quantity Increased (post-approval)	Additional Activity	3,660 events 1,071 cases	Order scope creep risk
Invoice Receipt → Invoice Receipt	Invalid Path	1,863 (8% of violations)	Duplicate invoice processing risk
Missing PO Released step (approval bypass)	Missing Activity	37,171 cases (84.6% of all POs)	SoD and audit control failure
Reverse Invoice Receipt	Reversal Activity	457 cases (0.97% rate)	Rework and correction cost

The Impact: Before vs. After FUTUROOT

DIMENSION	BEFORE FUTUROOT	AFTER FUTUROOT
Control Monitoring	Periodic manual review — no transaction-level coverage	100% of 43,880 cases assessed automatically
Price Change Controls	No visibility into post-approval PO price or quantity changes	3,569 price increases and 348 price decreases flagged and quantified
Approval Compliance	PO Release step absent in 84.6% of cases — undetected	Approval bypass surfaced across 37,000+ cases with value context
Invoice Processing	Single user handling 84% of invoice receipts — no alert	Workload concentration identified; automation saving of \$191.52K modelled

Bottleneck Visibility	<i>Delays between GR and IR discovered at period-end</i>	6.4-day GR ->IR bottleneck pinpointed with colour-coded severity map
SoD Risk	<i>Segregation-of-duty violations not quantified</i>	5 SoD violation cases identified and attributed to users
Rework Quantification	<i>Rework volume and cost not measured</i>	1,790 rework cases; 17.7-day cycle time; \$28.18K savings potential
Data Foundation	<i>Assumption and sample-based process understanding</i>	SAP event-log evidenced truth across entire P2P landscape

Leadership Perspective

"FUTUROOT gave us a complete, evidence-based picture of our Procure-to-Pay process for the first time. Within weeks, we had identified critical bottlenecks, approval gaps, and workload imbalances that manual reviews had simply never surfaced. The platform transformed our understanding of the process from assumption to fact."

Head of Procurement Operations, Anadolu Efes



Why FUTUROOT

Depth of Insight:

Complete transaction-level analysis of 43,880+ cases - zero reliance on sampling or user-reported issues.

Technical Range:

Native SAP ABAP extractor ingests encrypted data directly, mapping every event against the configured ideal P2P path.

Actionable Intelligence:

Every bottleneck, violation, and rework case is attributed to specific vendors, users, plants, and values.

Transformed Audit functions:

Replaced periodic manual spot-checks with continuous, 100%-coverage process intelligence across the full P2P landscape.

About

Anadolu Efes is one of the largest beer and soft drink producers in Europe and the Middle East, headquartered in Istanbul, Turkey. It operates across multiple geographies and manages complex, multi-entity SAP ECC environments spanning numerous company codes and purchasing organisations.

FUTUROOT is an enterprise process intelligence platform with native ERP connectors that enables forensic-level process mining without large data science teams. Delivered by Percipere Consulting Ltd., the engagement was completed with full data security using the encrypted ABAP offline extraction methodology.