

Introduction to Business Process Intelligence

- Aligns business analysts, operations, and data teams around shared goals
- Technology-driven practice to model, analyze, monitor, and optimize processes
- Combines process mining, BPM, and AI into a governed capability
- BI reports what happened; BPI explains why and what to do next
- Learn core concepts, evaluate tools, and translate insights into action



Why Process Intelligence Matters



- Moving from static documentation to evidence-based process management
- Traditional process maps: subjective, snapshot-based, disconnected from execution
- BPI reveals hidden complexity: variants, handoffs, and invisible bottlenecks
- Identifies process-driven causes behind KPIs: delays, rework, compliance gaps
- Foundation for automation, AI agents, and continuous improvement

Core Building Blocks: Event Logs and Process Data

- Event logs are the foundation: cases, activities, timestamps, and attributes
- A case tracks a business object (order, invoice) through its lifecycle
- Process data differs from raw operational transactional data
- Identical transaction records can hide very different process paths
- Minimum requirement: one case ID, one activity name, one timestamp



Analytical Methods: Discovery, Conformance, and Performance



- Process discovery: reconstructing actual flows from event data



- Conformance checking: comparing actual behavior with intended model



- Performance analysis: cycle time, throughput, wait time, resource utilization



- Object-centric mining: multi-object analysis like order-to-cash



- Root cause analysis and predictive analytics as higher maturity capabilities



Typical Outputs: Process Maps, Bottlenecks, and Metrics



- Process maps show real process variants, not just designed flows



- Bottleneck analysis pinpoints high-wait steps and rework loops



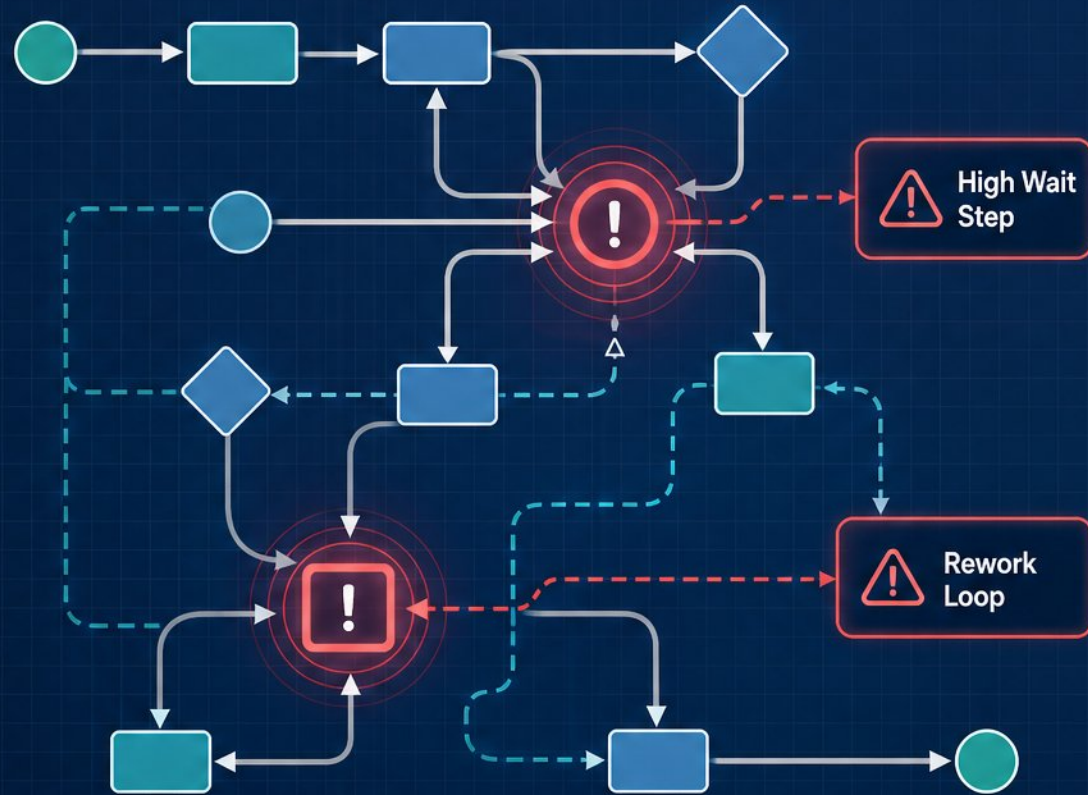
- Key metrics: cycle time, throughput, automation rate, happy path rate, conformance rate



- Dashboards and alerts enable operational transparency and proactive management



- Insights guide business analysts, operations, and data teams in decisions



Tools and Technology Landscape



- Process mining platforms, task mining, BI, and orchestration tools



- 2026 vendors: Celonis, SAP Signavio, IBM, QPR, ServiceNow, UiPath



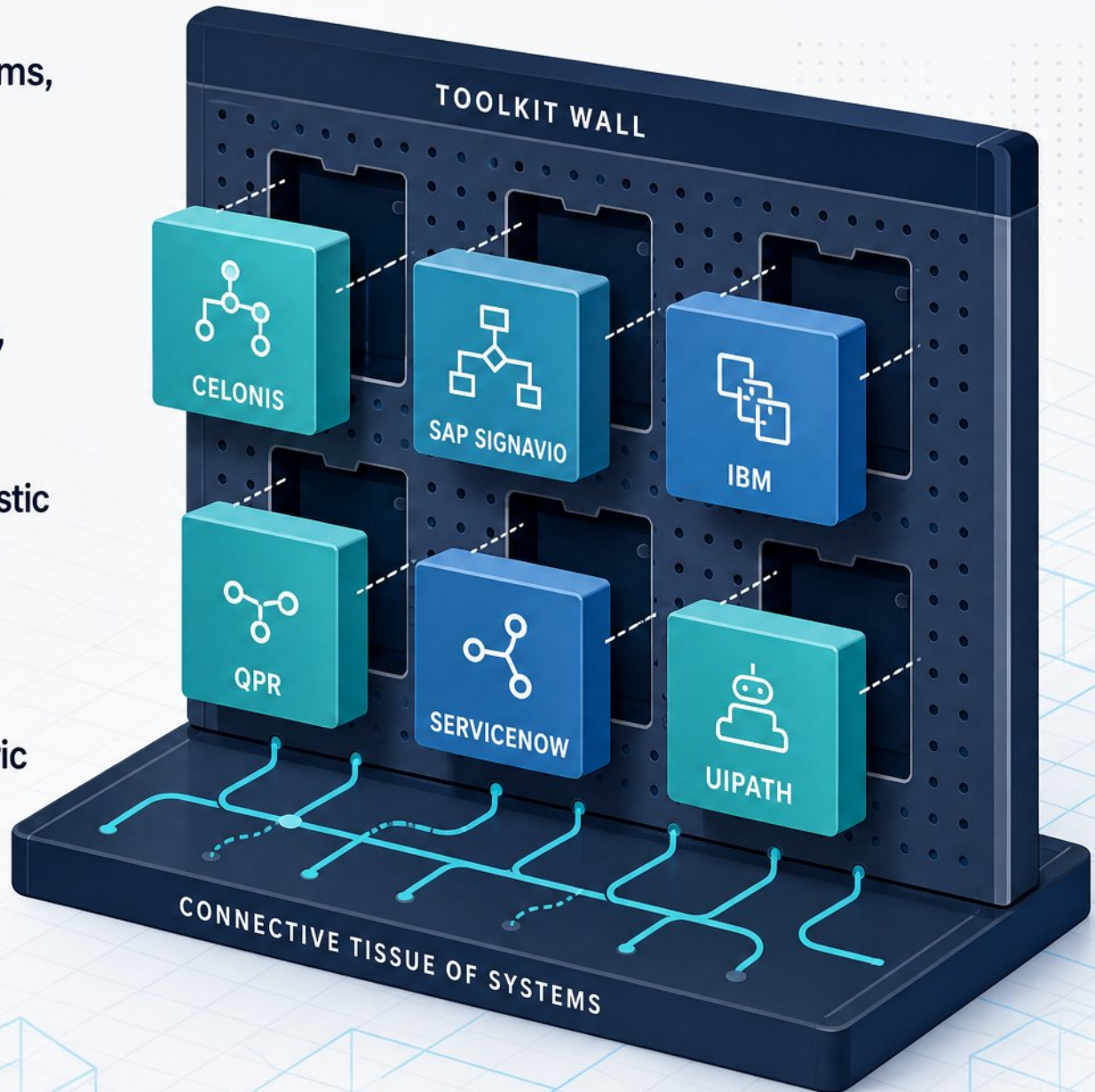
- Platform-native vs. agnostic mining: data access and governance trade-offs



- Evaluate data maturity, integration, object-centric support, AI readiness



- Match tool choice to your organization's stack and use case



Common Use Cases: O2C, P2P, and Beyond



- **Order-to-cash:** reduce route changes, improve days sales outstanding



- **Procure-to-pay:** fix payment misclassifications, maximize cash discounts



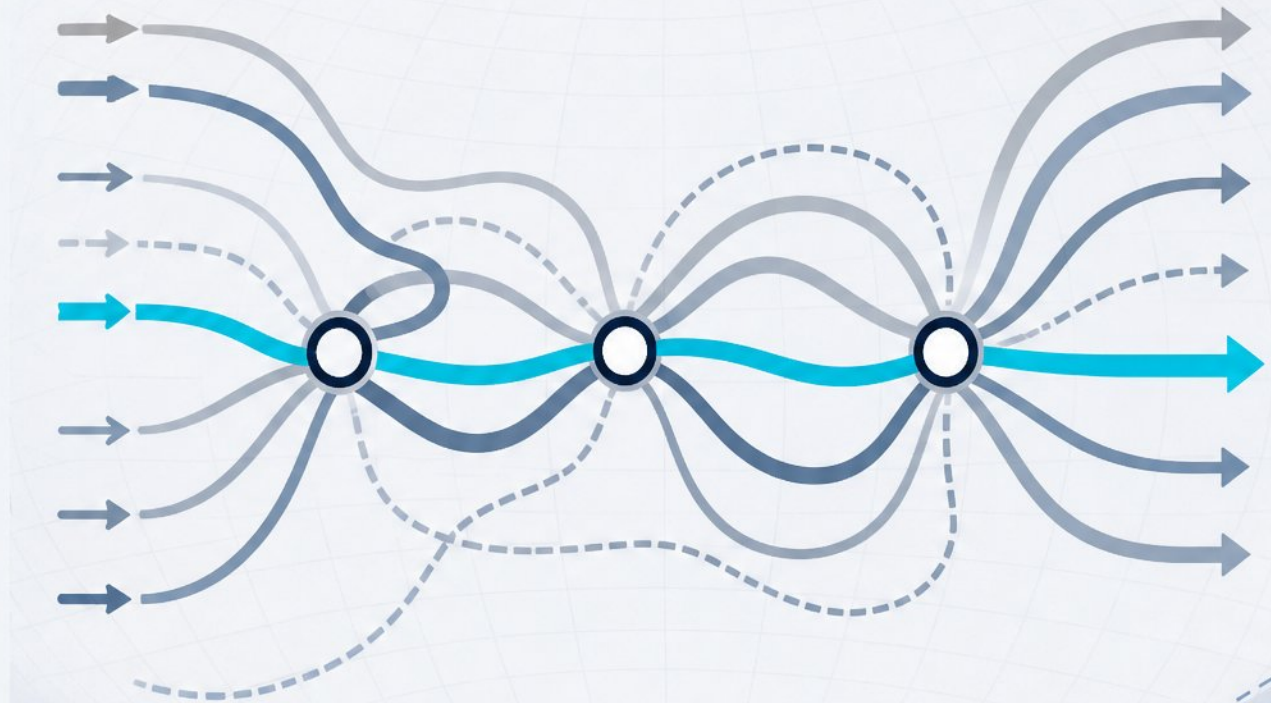
- **Claims and customer service:** detect rework loops, improve response times



- **Audit and compliance:** continuous conformance checking and risk detection



- **Proven impact:** Hexion, IQVIA, ThyssenKrupp achieved millions in savings

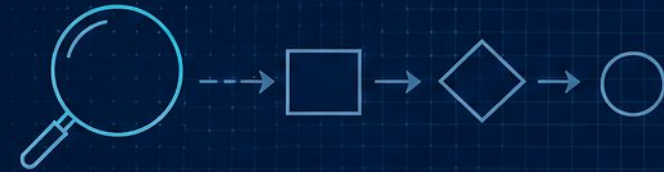


Roles and Collaboration in BPI Initiatives



- **Business analysts:** translate process questions into data requirements and interpret findings
- **Operations teams:** validate process reality, prioritize improvements, and own the change
- **Data teams:** prepare event logs, ensure quality, and maintain the analytical environment
- **Shared workflow:** define questions, extract data, analyze, interpret, and agree on actions
- **Avoid silos:** process owners and data teams must work as one team, not in sequence
- **BPI connects** process models with real operational insights for a governed, end-to-end view

Data Readiness and Quality



- Evaluating system logs: case IDs, activity names, and timestamps



- Handle missing events and unreliable identifiers



- Use data validation and open documentation for gaps



- Involve IT and data owners early for governance



- Data readiness determines the speed of BPI value delivery



From Insights to Action: Prioritizing and Measuring Improvement



- Prioritized improvement backlog, not just a problem list



- Measurable targets: cycle time, error rate, working capital, automation rate



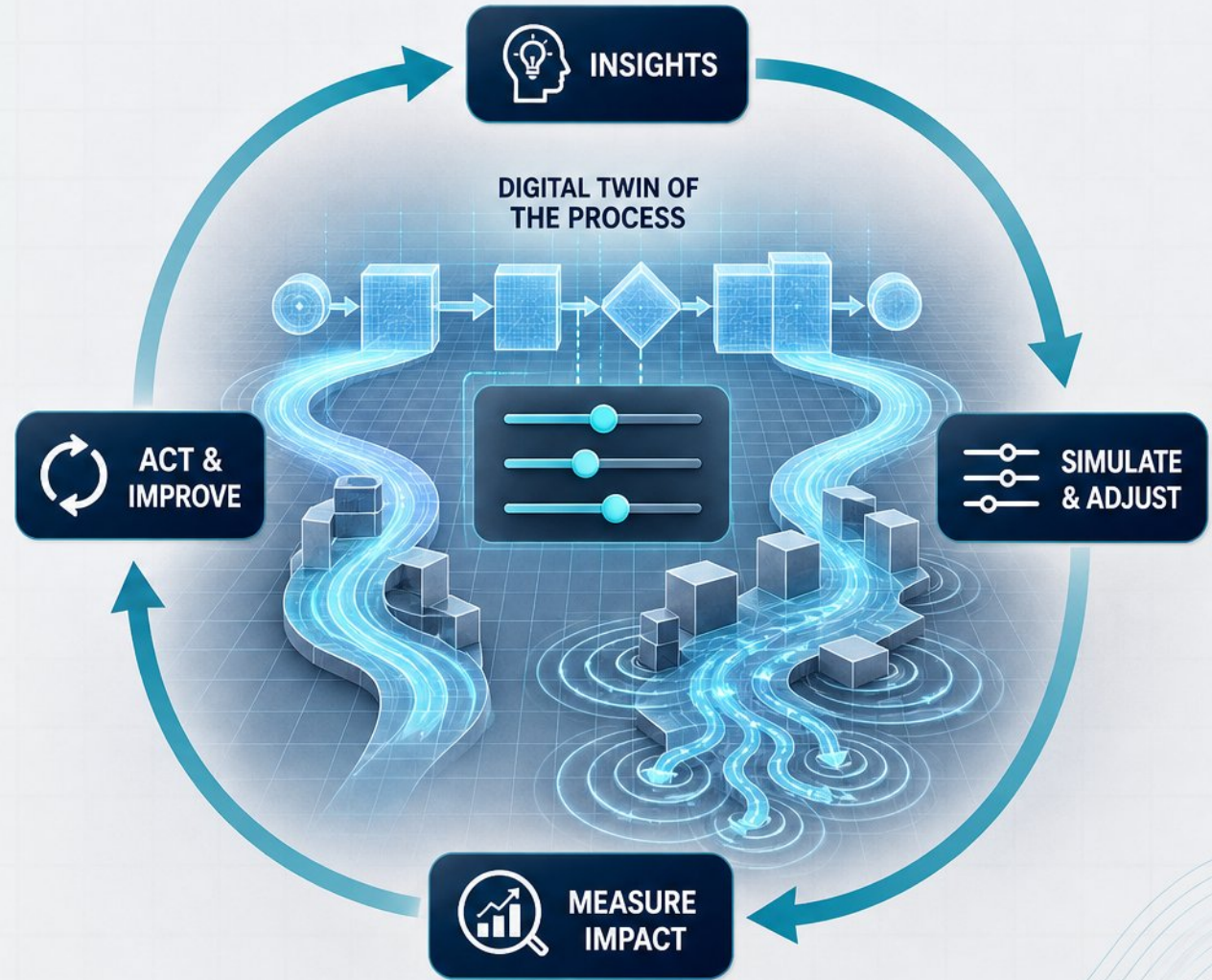
- What-if simulation and digital twins de-risk changes before rollout



- Closed-loop monitoring measures impact before and after change



- Insights drive automation, redesign, and operational excellence



Getting Started: Readiness, First Project, and Quick Wins



- Verify data access, process owner, clear business question



- Pick a high-volume, high-pain process like O2C or P2P



- Target quick wins: master data errors, misclassified payments



- Avoid over-scoping, weak sponsorship, poor data quality



- Build capability via centers of excellence and shared playbooks



Practical Workflow for a BPI Project



- **Step 1:** Align stakeholders on the core business question
- **Step 2:** Inventory and extract event logs with the data team
- **Step 3:** Validate data quality and confirm case definitions
- **Step 4:** Run discovery, conformance, and performance analysis
- **Step 5:** Interpret findings with operations and convert into actions

Common Pitfalls and Key Success Factors



- Avoid treating BPI as a pure data exercise without process ownership



- Don't automate inefficient processes; fix them first



- Continuous monitoring is required; one-time analysis is not enough



- Ensure strong collaboration between business, operations, and data teams



- Link BPI goals to KPIs such as working capital, cycle time, and compliance risk



Action Plan and Next Steps



- Map first BPI use case to a concrete business problem and sponsor



- Define minimal event log requirements and confirm data access with IT



- Choose pilot tool: platform-native or system-agnostic, based on data maturity



- Set up cross-functional team with clear roles for business, operations, and data



- Plan for continuous improvement: monitoring, feedback loops, and capability building



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