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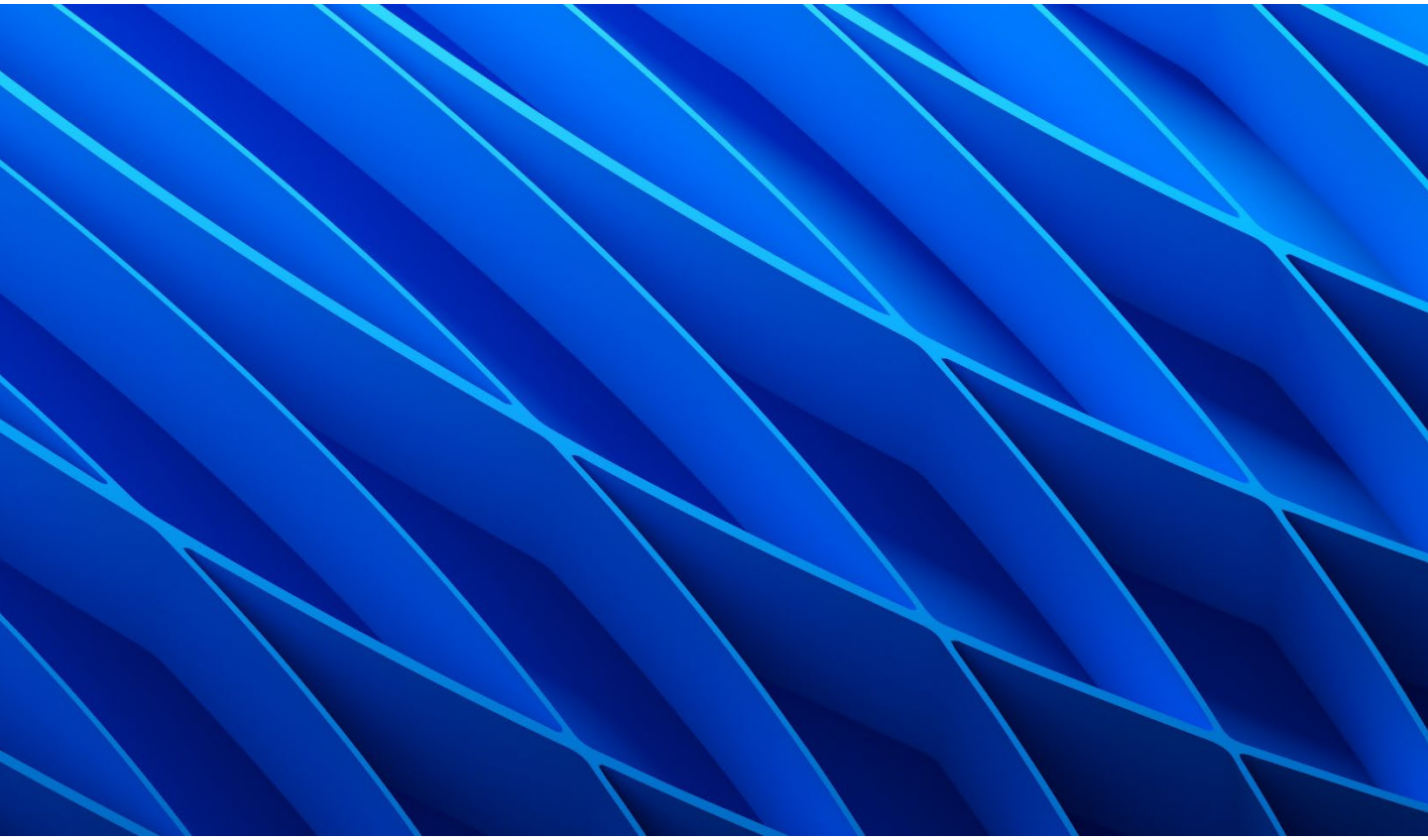
# Foundry Process Mining & Automation

Mine processes. Reveal inefficiencies. Drive change. Continuously optimize.

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Overview

01 Selected Impact
02 How It Works
03 Use Case Detail
04 Reference Architecture

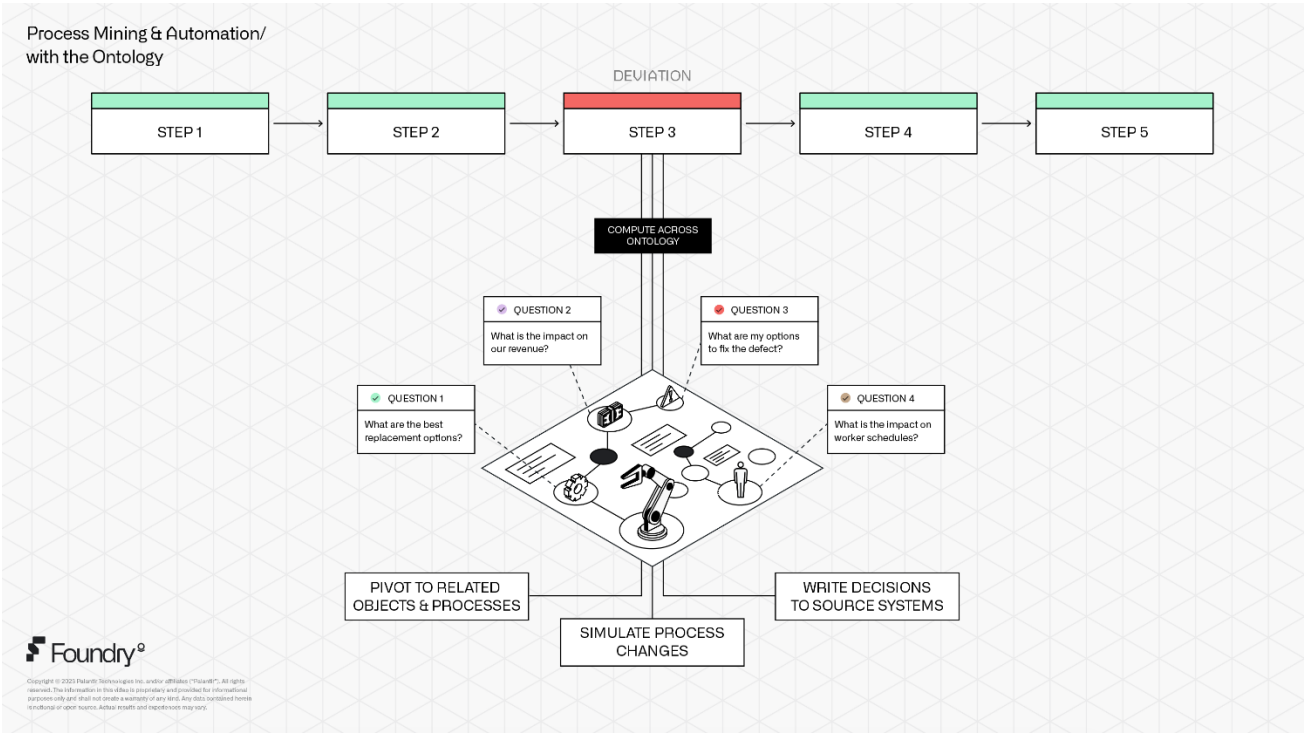
## Overview

From procuring goods to manufacturing wind turbines, repeated processes are the lifeblood of every organization. When processes function optimally, businesses can do more with less, minimizing the time, money, and resources required to reach a desired outcome. When they don't, there can be massive impacts — dissatisfied customers, forgone revenue, wasted time, and more.

While companies may have an idea of how their processes *should* function, few have an idea of how they *are* functioning in reality. Processes frequently leave a digital trail of interactions, but deriving insights from this trail means sifting through a web of logs (if they even exist), piecing together siloed data, and attempting to fill in gaps in order to cobble together a data foundation for further analysis. Without this foundation in place, it is impossible to understand how processes are functioning day-to-day, let alone how to optimize them.

Even with a robust data foundation, however, understanding how to truly optimize processes (i.e., accounting for *all* relevant inputs and drivers of a process as well as the ramifications of a given change) requires an all-encompassing, fully connected view of the organization and associated context — as does implementing sustainable, scalable change. Foundry Process Mining & Automation is designed to do just this.

Powered by the Foundry Ontology— a digital representation of your business shared by data, analytics, and operations teams — Process Mining & Automation enables process mining on the intuitive objects that make up your organization.

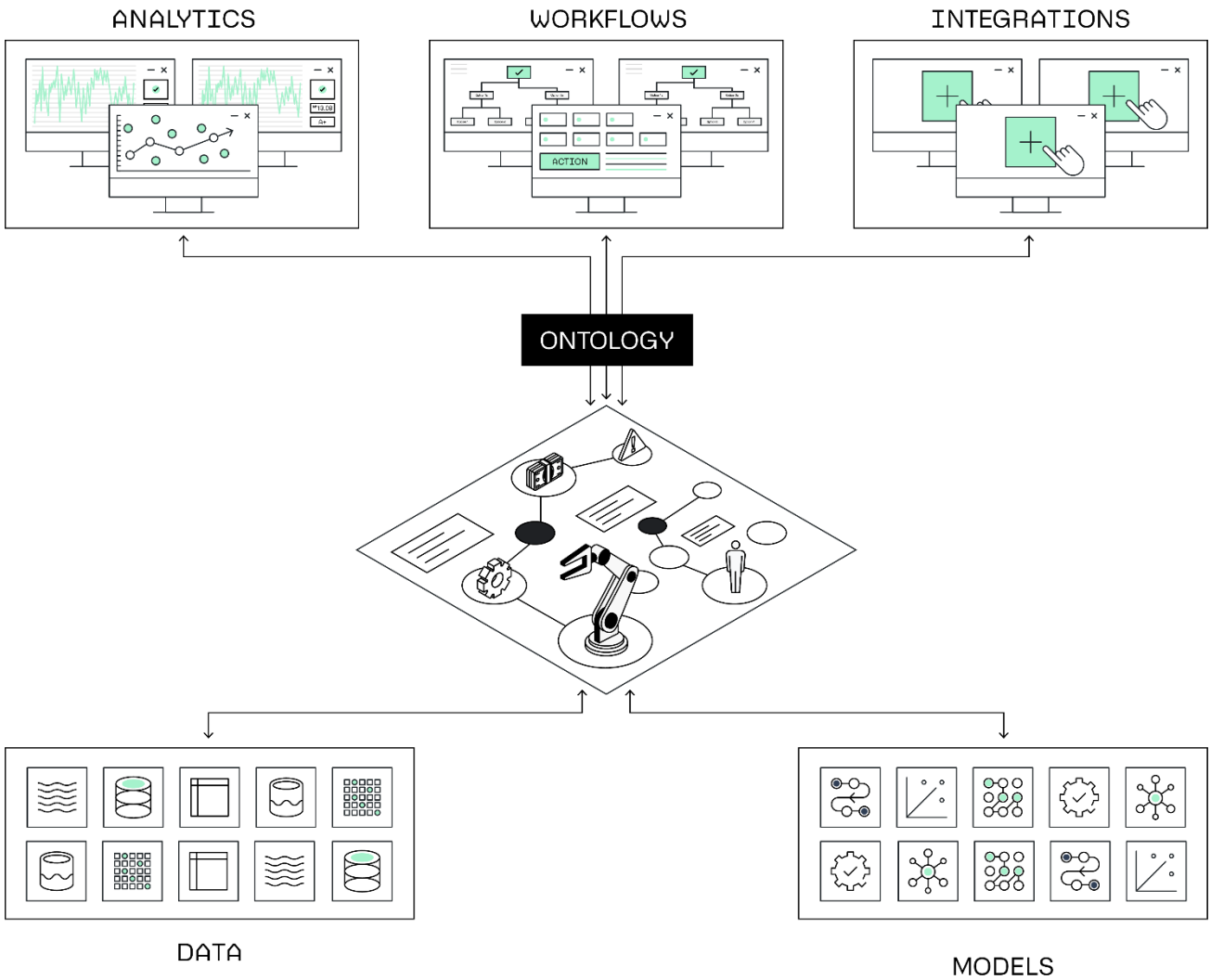





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## Overview
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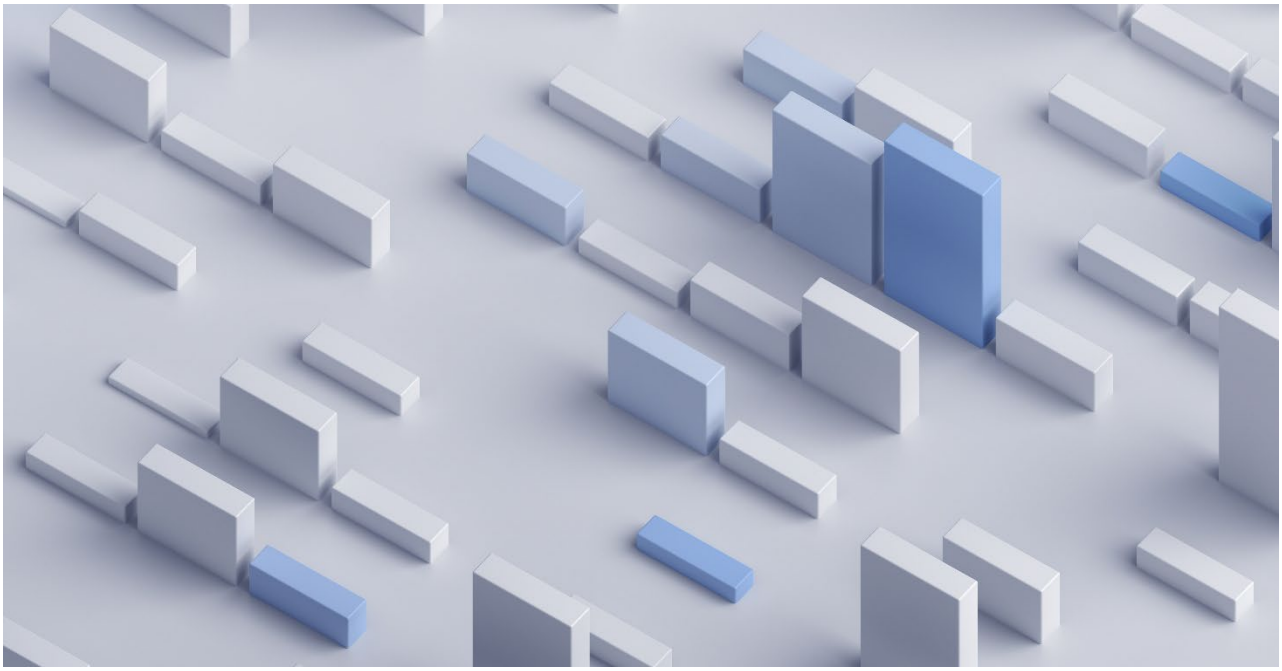
The Ontology unlocks coordination across all actions, processes, and decisions in real time, as well as the ability to simulate, iterate, and learn as conditions change. This means you can perform root cause analysis that drills into your entire business, understand the ramifications of actions, and orchestrate decisions across source systems, fueling continuous improvement that reaches far beyond a single process.






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# 01 Selected Impact



| | |
|---|---|
| Accelerating Export Control Approvals to Unblock Production at a Defense Manufacturer | • **30% process acceleration** with Process Mining & Automation<br>• **2 million** parts per vehicle per year potentially impacted across the company |
| Unlocking Loan Origination at a Digital Home Ownership Company | • **~114% increase** in outbound customer touchpoints per salesperson<br>• **2x** outbound sales touchpoints per customer |
| Reducing Vehicle Downtime at a Multi-National Car Rental Company | • **$15 million / year** target savings by reducing out of service time by 2%<br>• **500K global fleet size** under maintenance responsibility |
| Accelerating Resolution of Quality Defects at a Global Manufacturer | • **10% lead time reduction** to resolve defects, achieved in 2 weeks<br>• **25%** target lead time reduction from Head of Quality as Process Mining & Automation is rolled out across team |

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# 02 How It Works

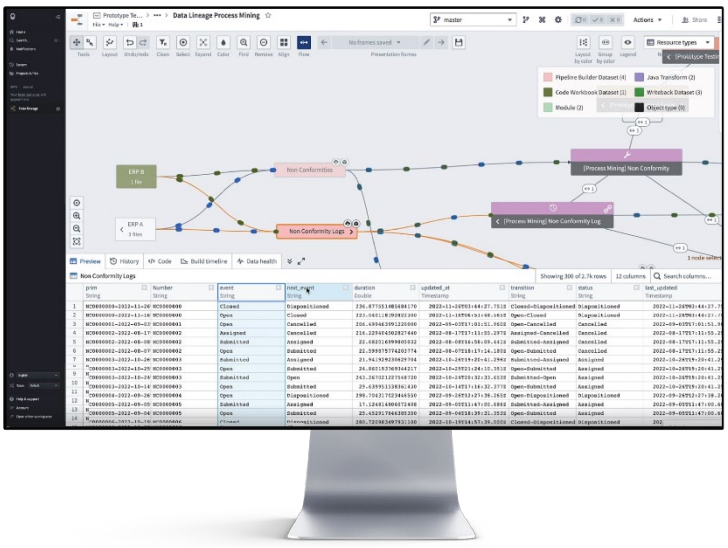
## Connect

Foundry is engineered to securely integrate and transform data (including IoT, free text, and geospatial data) and models from any source system in just a few clicks — **no third parties or third-party software required.**

Foundry's Data Connection framework is a highly flexible set of services that enables you to connect with all types of source systems — structured, unstructured, or semi-structured — and with all key data transfer approaches, such as batch, micro-batch, and streaming. Foundry provides out-of-the-box integration with well-known system types (e.g., relational databases, FTPS, HDFS, S3, SFTP, and local directories) as well as the flexibility to connect and sync data from new system types.

Palantir HyperAuto — also known as Software-Defined Data Integration, or SDDI — allows you to not only connect to common ERP and CRM systems (including SAP, Salesforce, Oracle NetSuite, and Hubspot), but also to programmatically generate data pipelines that clean, normalize, and harmonize datasets into a cohesive data asset at speed.

Crucially, Foundry's pipeline tools enable users to create process logs in as little as hours, meaning that they can mine processes using data sources that do not automatically generate logs.



Integrated data is fed into the Ontology, empowering you to tackle high-value use cases across your enterprise, no matter the sources — without time-consuming manual integration or additional setup.

With Foundry's full suite of data engineering tools, existing users can expect to begin mining processes in three days and prototyping workflows in two weeks; new users can expect four to six weeks to value from data access.



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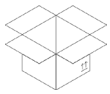
# Understand

Process Mining & Automation enables you to mine **any** process from **anywhere** in your organization with nothing more than simple log files.



Examples include:

## Purchase-to-Pay



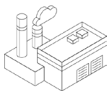
- Eliminate bottlenecks in procurement
- Optimize cash flows, reduce fees, and improve supplier OTD metrics

## Quality Control



- Accelerate non-conformity resolution
- Avoid delays including ping-ponging of issues among teams

## Production Throughput



- Reduce downtime
- Optimize production scheduling and improve asset utilization

## Export Control



- Make legal and compliance checks more efficient
- Unblock plant operations
- Avoid costly production delays

## Customer Journeys



- Accelerate loan issuance
- Customer Acquisition and KYC
- Patient treatment pathways
- Increase conversion rates throughout funnel



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## Understand
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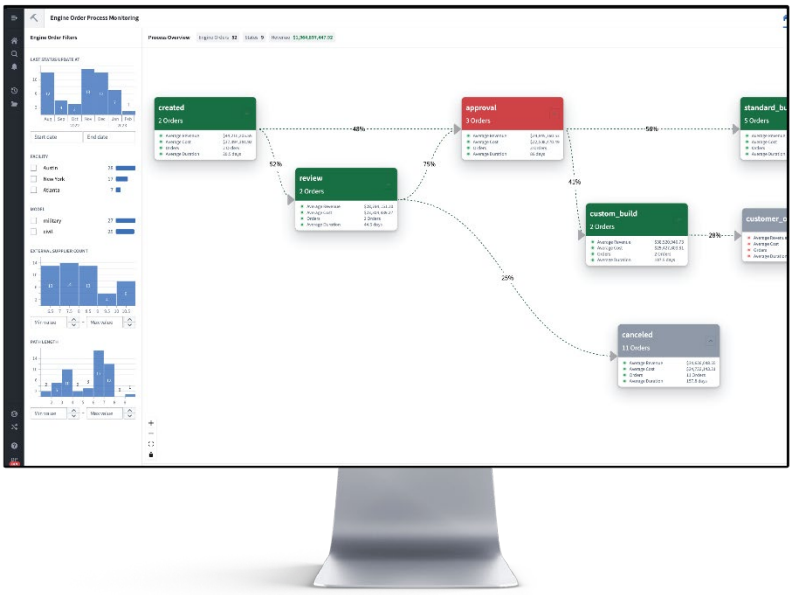
The result is an easy-to-navigate point-and-click visualization of the *actual* paths your process takes, which can then be directly compared to the *ideal* path that you define. With this visualization, users can drill into the process at varying levels, scaling complexity up or down as desired by layering in additional paths on top of the expected sequence. Process Mining & Automation also allows users to set customized KPIs for each stage, which can be used both in investigation and remediation.

Users can develop models on integrated data within Foundry or build models externally and import them as libraries, artifacts, containers, or APIs. These capabilities allow you to, for example, develop automated root cause analysis models in Foundry (or bring existing such models into Foundry) that uncover the drivers of process deviations.

This means you can quickly understand where your processes veer off course — and why.

## Analyze

Process Mining & Automation enables ontology-driven root cause analysis, identifying the drivers and impacts of inefficiencies both within the confines of a single process and beyond. With the Ontology, this root cause analysis reaches across your organization in all its intertwined complexity, querying all related objects – from work orders to schedules to raw materials – and processes to uncover both the core drivers of deviations and, crucially, how to fix them.




Process Mining & Automation allows you to optimize and prioritize fixes in the realm of your broader business rather than in a silo. As you evaluate potential solutions, ML/algorithmic-agnostic forecasting and simulation enable you to uncover the potential direct and indirect impacts of what-if scenarios: for example, you can easily see whether fixing a certain root cause would have a positive impact on the process in question, but would have negative impacts elsewhere.



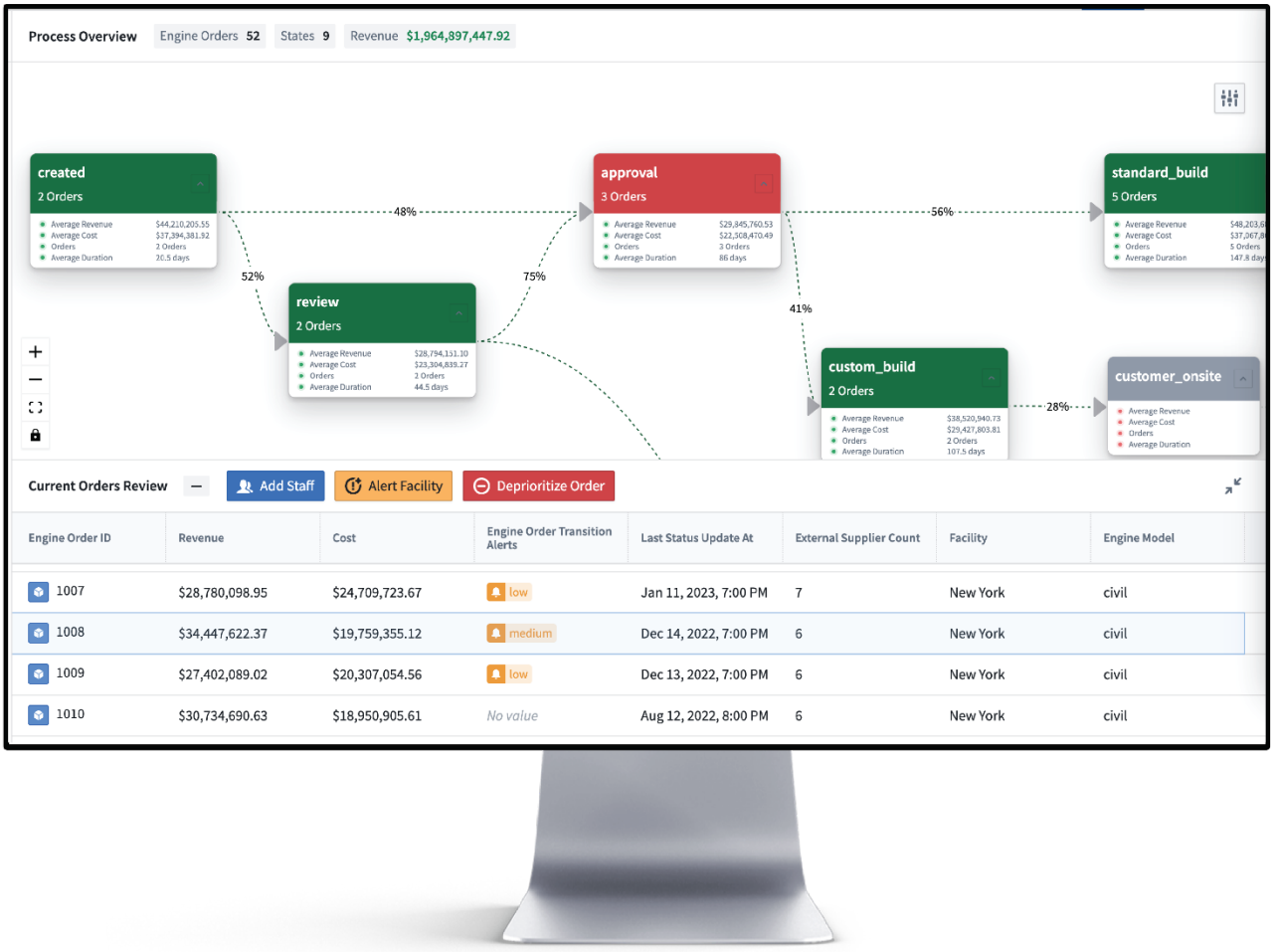
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# Act

Instead of generating read-only charts and plans, you can immediately take action — from alerting an engineer to assigning additional staff — in Foundry.

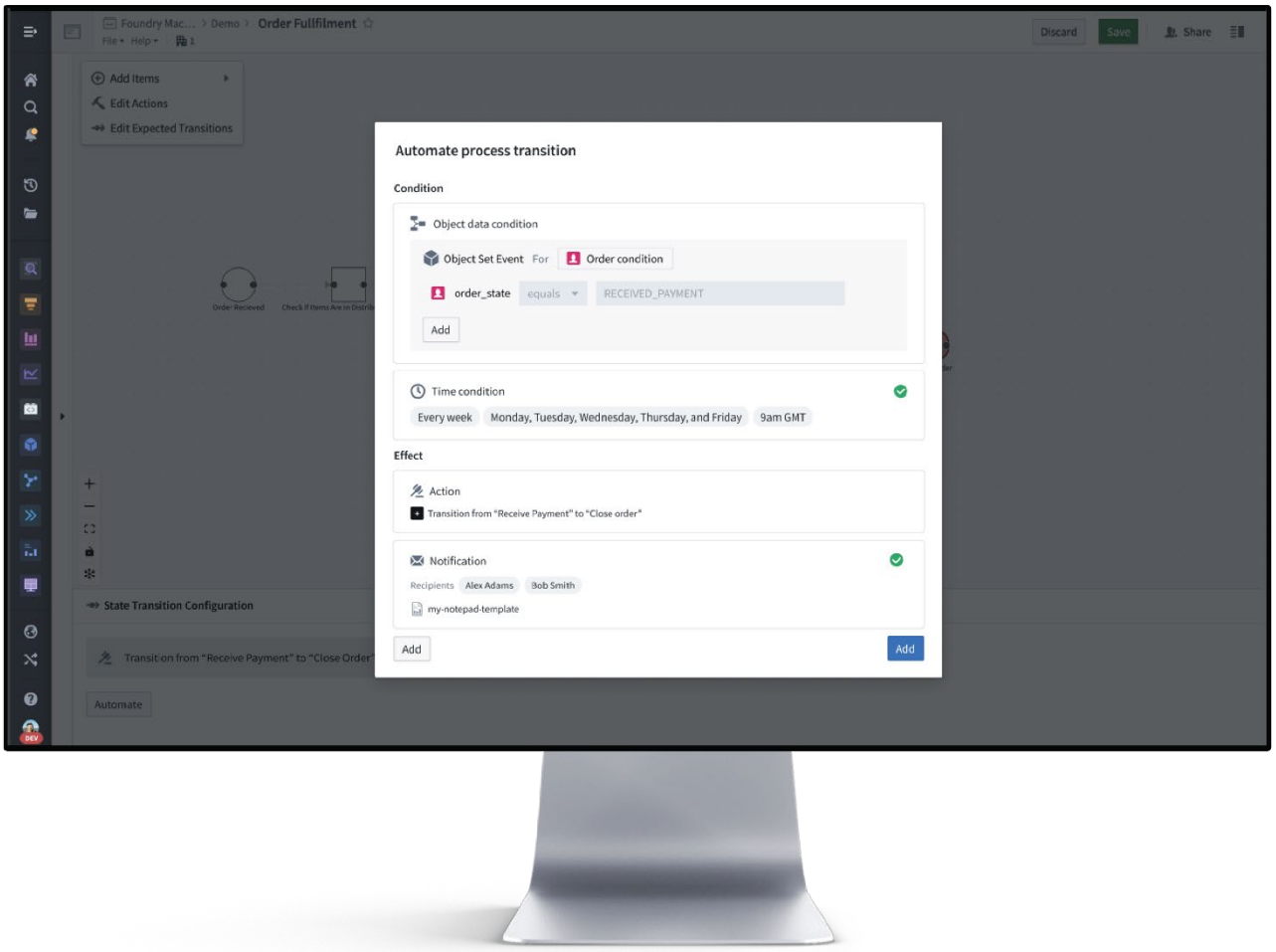
With ontology-enabled decision orchestration, you can drive changes in a stable, governed manner, and mediate changes to data and models in external environments (e.g., edge, tasking, and transactional systems). Webhooks allow you to connect to systems outside Foundry in a highly flexible way, including sending requests to a REST API or an ERP system.

With this, you can readily fix problems at their source while keeping all your systems in sync.






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## Automate

Go beyond a one-time diagnostic. Continuously optimize your processes by implementing custom triggers for automatic action when steps are completed, milestones are met, or thresholds are breached. Users can configure alerts which can in turn be routed to downstream applications or sent via email, in-platform, or through third-party integrations for custom notification services.

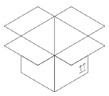
This means users can automate processes ranging from communications with suppliers to assigning additional resources to a case — all within Foundry.



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# 03 Use Case Detail

## Purchase-to-Pay



In a purchase-to-pay context, Process Mining & Automation can drastically improve key procurement process KPIs such as maverick buying, utilized cash discounts, and throughput times.

It enables procurement teams to:

- Directly compare procurement processes to the ground truth
- Uncover inefficient process paths and prevent them from occurring in the future
- Perform root cause analysis to reveal the origin and magnitude of bottlenecks and inefficiencies, as well as the significance of their impact
- Recommend which actions to take to drastically improve key procurement process KPIs

For example, with Process Mining & Automation, a procurement manager can drill into a supplier with a particularly high maverick buying ratio — which could mean millions of dollars of forgone negotiation potential — and quickly understand the magnitude of the impact, the associated orders, the employees involved, and more. Any data associated with this supplier is at her fingertips, meaning she knows exactly which actions to take to address the problem, from speaking to the supplier manager to adding controls to a particular process.



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# 03 Use Case Detail

## Quality Control



For manufacturers, quickly resolving product defects — and preventing them in the first place — is key to protecting the organization against lost revenue, missed targets, delayed orders, dissatisfied customers, and even lawsuits. Process Mining & Automation enables users to identify defects at any stage of the process, and, with the Ontology, to rapidly understand the root causes as well as what inputs are required to fix them.

For example, if a defect is being caused by a faulty part, a quality control manager can drill into that object in his organization's ontology to:

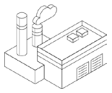
- Understand the full impact this defective part has on the production process as a whole
- Alert all teams across the organization (production, logistics, procurement, etc.) to the defect and the need to find replacement parts
- Simulate the potential implications of using the replacement part; e.g., revenue impact from wait time for part to arrive, need to re-arrange staff schedules to accommodate delays, etc.
- Monitor the progress of obtaining a replacement part, and rapidly resolve any bottlenecks with full visibility into the teams involved in the process — minimizing the possibility for issues to shuttle between teams



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# 03 Use Case Detail

## Production Throughput



From car rental companies to factories, asset downtime represents more than lost revenue — it can mean direct costs in the form of maintenance, repairs, and even outright replacement. Without the ability to systematically integrate and operationalize data on asset characteristics, maintenance history, repair status, location, and more, organizations cannot fully understand why an asset is offline, let alone how to prioritize repairs, get the asset back in use, and implement measures to prevent future downtime.

With Process Mining & Automation, every level of the organization (from maintenance crews to executives) can understand the root causes of downtime, both at the level of individual assets and across business units and processes. The Ontology allows organizations to see all data related to an object, and how it impacts the overall process.

For example, maintenance crews can see which fixes will have the greatest impact on output, enabling them to prioritize the most impactful repairs. In addition, managers can take a top-down view to identify patterns (e.g., a certain machine that tends to break down at regular intervals) and implement proactive maintenance to prevent future downtime.



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# 03 Use Case Detail

## Export Control



For manufacturers, export controls can be the source of lengthy delays in production, assembly, and dispatch of products. The process of checking parts before they are released is complex, and requires that export control lawyers classify each part, review relevant documents (e.g., documentation from the government which allows the company to trade), run screenings for trade restrictions, etc. Given the complexity and number of inputs required, parts are frequently delayed in legal review, which can lead to snarled operations and production delays. Beyond this, the teams involved in the process are frequently siloed, meaning that there is limited visibility into why a part is stuck in a certain stage of the process, and what is needed to accelerate its release.

Process Mining & Automation anchors these teams to a single source of truth: the Ontology. The Ontology enables operational teams to easily see where and why a given part is delayed, and how this could impact the overall production and distribution process. Legal and compliance teams have a complete picture of their review pipeline, how to prioritize the reviews that will be most impactful, as well as how to proactively request information that they need to complete their review process and release a product. At the same time, business teams have a real-time view of the overall process, and can readily communicate status to customers.



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# 03 Use Case Detail

## Customer Journeys



Process Mining & Automation enables organizations to optimize journeys ranging from customer acquisition to insurance claims. It provides executives with an actionable, top-down view of the overall customer journey, while simultaneously empowering managers to identify and remediate individual bottlenecks.

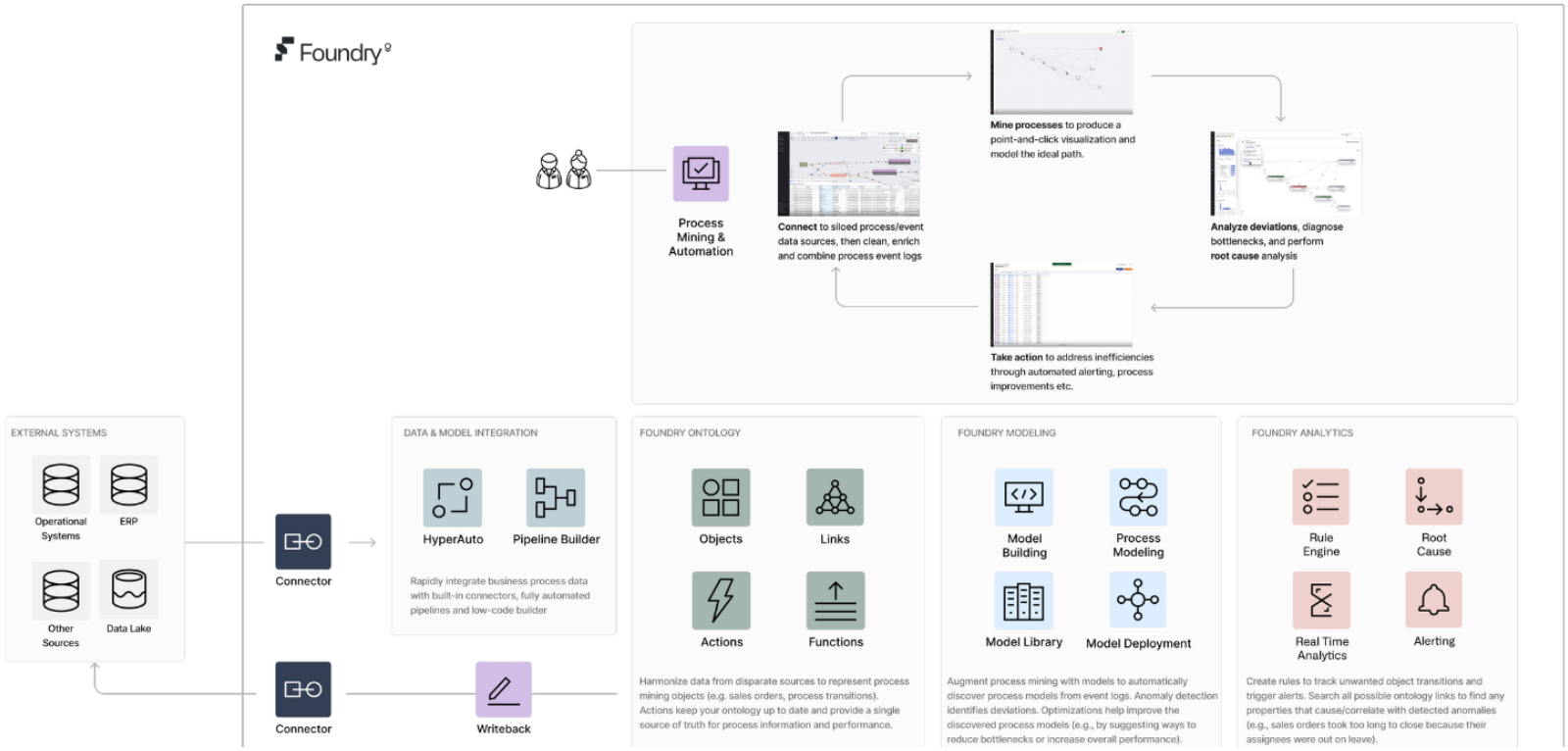
For example:

- A CEO can identify the most effective tactics and salespeople based on the company's success metrics and direct additional resources towards them
- A claims manager can configure an alert to be triggered if a claim has been outstanding for a certain number of days and set the trigger to automatically send an email to a customer with a status update
- A Chief Compliance Officer can see that an unusually high proportion of customers were delayed in the document review stage of KYC and assign additional staff to accelerate the process



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# 04 Reference Architecture




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