Invitalia Implements Process Mining to Boost Economic Growth

INVITALIA

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Invitalia, an agency of the Italian Ministry of Economy and Finance, aspires to boost Italy's economic growth. Since its inception, Invitalia has financed more than 1,000 innovative startups, almost 150 large investments, and more than 6,000 new businesses.

Goal: Shift to Efficient, Intelligent Processes

In Italy, Invitalia is the national agency for internal investment and economic development. It aspires to boost the country's economic growth by focusing on development, employment, and financing projects of all sizes, including those headed by entrepreneurs with plans for innovative and high added-value sectors.

The agency's challenge was managing a large number of applications and optimizing its processes to review them. Time-consuming, manual steps, including telephone interviews were susceptible to human error. The situation created an incomplete and often outdated view of performance.

To increase efficiency, work smarter at funding, and become more innovative in its approach to fueling the Italian economy, Invitalia wanted to reassess and optimize its end-to-end business processes. Many of its operational systems—including CRM, ERP, HCM, and CMS—needed to work efficiently together. The goal was to save substantial time, increase scalability, and inject greater sophistication and objectivity into decision-making.

Solution: Detect, Assess, and Optimize Processes

Invitalia began a journey to make better use of its data for more intelligent business decisions. It needed answers to some fundamental questions, such as:

Do we have a comprehensive view of the processes we execute daily?

Can we detect inefficiencies?

How can we improve in those areas?

Are we compliant with internal rules and policies such as segregation of duties?

Do we meet our SLAs and deadlines?

What's the cost of each process?

Explains Chief Data and Analytics Officer Mario Ettorre, "We had discovered TIBCO LABS initiatives, which allowed us to use TIBCO process mining technology. We worked alongside TIBCO experts and our internal business process owners to build a process mining solution that would answer our questions." The process started by analyzing log files, which provided an overview of the actual processes being used.

Using the TIBCO Connected Intelligence platform, Invitalia applied visual analytics as the front-end layer for process mining discoveries. Looking at the number of funding requests managed, Invitalia examined time-to-completion and performed a process based cost analysis to remove hidden inefficiencies and boost the whole request management process.

By detecting and fixing performance inefficiencies, Invitalia improved execution of business processes, including for purchasing, fund management, and service desk support. Through process models, it gained an understanding of every possible path or variant in a process and was better able to accurately assess its performance.

According to Ettorre, "We saw the big picture by exploiting our internal and external datasources using the Invitalia Knowledge Lake to discover knowledge and accelerate business and decision processes, and provide more information to citizens and our internal operators, too. By integrating this data into operational systems, we can make the best decisions, predict the best next action, and create what we call augmented operational intelligence."

Reduced Time and Cost

Business process execution time and costs have been reduced by identifying and removing bottlenecks. For example, the team discovered a bottleneck during assignment of a funding request to a human operator. They used process mining to uncover the underlying reason, then put in place an effective countermeasure, leading to 25 percent time savings. Fabrizio Bellezza, Group CIO, noted that one of the key benefits was the ability "to give our employees the opportunity to be more efficient and also more conscious of the work they are doing."

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—Mario Ettorre, Chief Data Analytics Officer

25% TIME SAVINGS

Using process mining to uncover causes and fix bottlenecks

100% OPERATIONS COMPLIANCE

Achieved, with segregation of duties company policy

35%

Faster funding approvals

"TIBCO's open architecture, comprehensive data science platform for descriptive and predictive analytics, customized visualizations, and ETL handling is exactly what we were looking for."

—Mario Ettorre

Consistent Company Policy Compliance

Invitalia relied on the TIBCO Connected Intelligence platform to track process improvements and compliance requests, and to provide cloud-native flexibility and connectivity to other systems. Leveraging TIBCO process mining capabilities, the agency was able to quickly compare its current business processes with a reference model. In other words. It provided a very fast and reliable conformance check to ensure 100 percent compliance with company policy.

Better Performance with Predictive Analytics

After completing the exploration phase, the company moved on to implementing predictive analytics using historical data to model the likelihood of the duration, efficiency, cost, and complexity of future requests. Resulting data science models were then embedded into production systems for improved performance of fund approval processes. The results were that Invitalia was able to approve funding for the right projects and business initiatives 35 percent faster than before.

Ettorre quotes 19th century physicist Lord Kelvin for inspiring Invitalia: "If you can't measure it, you can't improve it." Investigations into internal business questions were made by non-programmers. These users were able to stitch together workflows using low-code tooling, move them into production quickly, and apply machine learning algorithms all on their own. Ettorre praised the program for providing "the capability to go fast using TIBCO technology and try the feasibility of our ideas."

Connect, Unify, then Predict the Next Best Action

For connectivity among business systems, knowledge discovery, and data cleansing and modeling, data visualization and machine learning technologies have become fundamental to how Invitalia operates. Besides process mining at scale using a hybrid cloud architecture, the TIBCO Connected Intelligence platform empowers the agency to connect all information assets, unify data into a single view, and ultimately predict the next best courses of action.

"TIBCO's open architecture, comprehensive data science platform for descriptive and predictive analytics, customized visualizations, and ETL handling is exactly what we were looking for," says Ettorre. With data on-premises and hosted in the cloud, Invitalia's model-driven, open platform requires zero coding, and its visualization tools allow for applications across use cases.

TIBCO Software Inc. unlocks the potential of real-time data for making faster, smarter decisions. Our Connected Intelligence platform seamlessly connects any application or data source; intelligently unifies data for greater access, trust, and control; and confidently predicts outcomes in real time and at scale. Learn how solutions to our customers' most critical business challenges are made possible by TIBCO at www.tibco.com.