How INAIL Uses Process Mining as a Strategic Guide for Digital Transformation

Organizations seeking to increase digitization to keep pace with disruption face steep challenges in understanding the most direct approach to achieve their business goals. Innovation organizations, like INAIL, are using process mining to accelerate and reduce the risks of digital transformation by using accurate data about their processes for decision-making.

The Challenge: Creating a Framework for Incremental Change

INAIL, Italy’s National Institute for Insurance against Accidents at Work, manages claims of around 650,000 accidents per year. INAIL’s 10,000+ employees are distributed around the country and focus on protecting workers and undertaking scientific research to improve worker safety.

Initially established in 1933, the organization’s processes were old, complex, and highly varied. For example, INAIL’s procure-to-pay process included eight sub-processes. To achieve their modernization goals and fulfill their charter, they must first capture, reconsider, and re-engineer their business processes.

The first challenge was data quality. Without an accurate picture of all existing processes, the team could only guess what might need to change. In collaboration with management consultants HSPI, INAIL decided process mining using Apromore would be the fastest and most accurate way to discover and model all existing processes.

As a first step, INAIL conducted a comprehensive analysis of its IT operations processes. These processes were easily discoverable as the data existed mainly in applications.
In addition, they were moderately complex, providing the team with an excellent testing ground before scaling their efforts to other more complex company processes. The team extracted event logs, obtained case identifiers, investigated anomalies, and filtered geographical areas and time horizons. To comprehensively analyze where they could improve, they used Apromore process mining capabilities including:

- Automated process model discovery
- Process performance metric analysis
- Rework and bottleneck analysis
- Process variant analysis

From this first experience, INAIL quickly learned that it needed to establish a solid governance structure to enable its managers and analysts to use data to direct their digital transformation across the organization. Additionally, INAIL required a framework that would allow them to continuously monitor the health of their core business processes and act as their "Process Control Room."

**Results and Benefits**

Using Apromore, the team found new ways to look at existing processes and then apply the insights gained. For example, the team identified non-compliant cases where purchase limits were sometimes exceeded, notwithstanding the Italian regulations. In addition, evaluating the process performance at the E2E level, the waiting time from ordering to invoicing was acceptable. The team was able to identify several opportunities for improvement after analyzing the individual sub-processes.
Gaining a Fresh Perspective

Adopting Apromore saves considerable time and lets INAIL's business management efforts focus on their most critical work: analyzing processes and generating solutions. With these insights, INAIL has streamlined the procure-to-pay process and is now extending this success to other processes. In addition, by using accurate and complete data, the team changed their perceptions about processes and identified weak links to avoid future problems. The team was able to implement changes, including:

- Reducing procure-to-pay waiting times
- Eliminating non-compliant cases
- Achieving extensive time savings
- Establishing real-time monitoring via the Process Control Room

Stefano Tomasini, INAIL's CIO says:

“The disconnect between IT and business operations in an age where services are all digital and driven by the IT industry could no longer be tolerated. Therefore, with process mining as our strategic asset, we have gained a higher level of digital maturity on our journey of digital transformation.”

Next Steps

The thorough analysis Apromore and HSPI performed for INAIL revealed exciting opportunities for automation by embedding robotic process automation (RPA). As a result, Apromore and INAIL are currently working on even tighter integration between INAIL’s data lake and the Apromore process mining platform to create a seamless analysis experience. As well as that, custom dashboards will be built on top of PowerBI, one of INAIL's corporate BI (Business Intelligence) tools, as a part of their Process Control Room.