



# **The AI Revolution in Banking:** Transforming Legacy Systems with Generative Intelligence

**Inetum eBooks on GenAI #01**





**inetum.**



# Introduction

Inetum is a leading company in the field of generative artificial intelligence (GenAI), offering innovative solutions to modernize banks' legacy systems. These systems, built on outdated technologies, hinder agility, integration, innovation, and cost reduction. Inetum uses its Refine x GenAI tool to automate the process of redocumentation, refactoring, and generating cloud-native code, preserving business logic and improving code quality and maintainability.



# 01

## The Inetum approach

- Legacy banking systems, while robust, are **difficult to integrate, update and maintain.**
- **The lack of agility in legacy systems** is exacerbated by limited resources, inaccurate knowledge and documentation, and increasing volumes of data.
- Legacy systems increase dependency on proprietary technology and specialized service providers, resulting in **higher operating costs.**
- **AI offers a unique solution to these challenges**, providing increased automation, reduced error rates, better resource utilization, and the ability to uncover new opportunities by reusing legacy logic and data.
- By unlocking legacy business logic, **AI can support variable computing requirements**, data processing needs, and real-time analytics, driving efficiency, product innovation, and the adoption of new business models.
- Inetum's Gen AI enhances system reengineering capabilities, providing features such as automatic documentation of code and COBOL to Java conversion, **achieving high levels of code maintainability and quality.** This intertwining of legacy systems and AI is critical in the evolving technology landscape that is shaping the future of financial services.

# 02

## Impact Opportunities

- By automating the process of modernizing legacy systems, you can significantly reduce the risk associated with manual workflows, while the benefit **is greater transformation acceleration and ROI.**
- With the translation and refactoring of legacy code to conform to modern programming paradigms, clients can **improve your system's adaptability and responsiveness**, enabling faster innovation and product development.
- Automatic test case generation and comprehensive redocumentation **reduce the risk of errors** during the modernization process, ensuring a smooth transition and preserving the integrity of business logic.

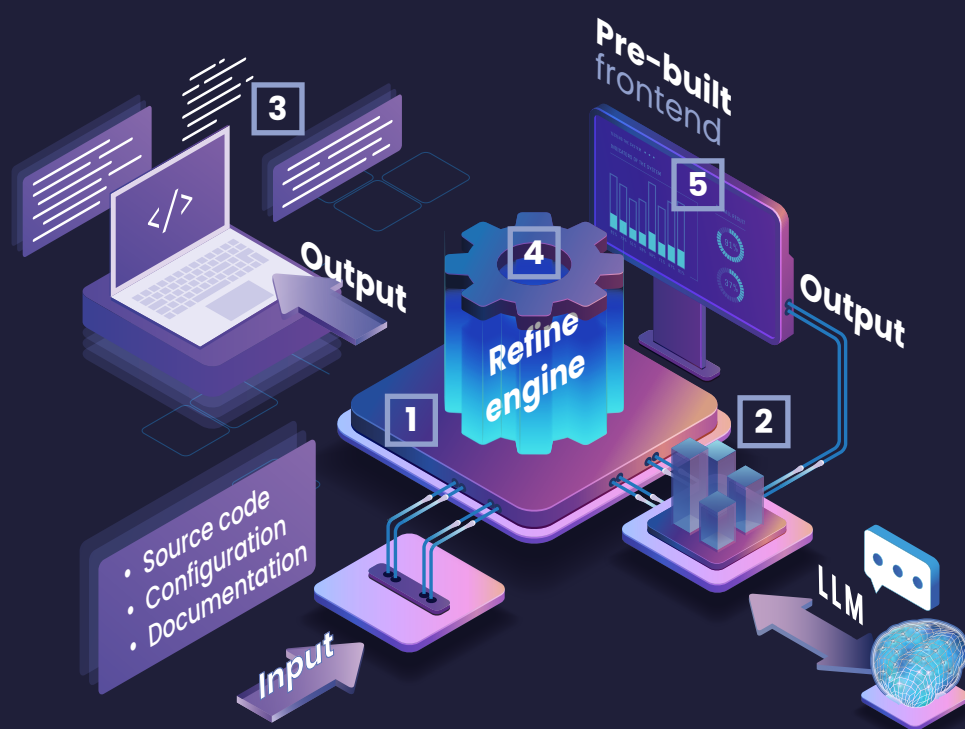


03

# The Inetum Solution: Refine x GenAI

Inetum's refine x GenAI is a revolutionary tool for modernizing legacy applications. It reuses valuable business logic to create digital native applications, opening up transformative opportunities for product innovation, improved customer experience, and the development of new business models.

## How Refine x GenAI works



- 1. Discovery:** refine x GenAI identifies legacy functions, components and methods directly from the code.
- 2. Redocumentation:** extract technical and functional program documentation leveraging predefined prompt/context engineering
- 3. Translation and Refactoring:** to conform to the latest programming paradigms.
- 4. Test case generation:** refine x GenAI automatically generates test cases.
- 5. Update the documentation** and provide an interactive front end for the development teams to query the documentation repository.

# 04

## Success story

### The Challenge

An international bank's legacy system, built on outdated technology, was becoming increasingly challenging to maintain and upgrade.

It lacks the agility and adaptability of modern systems, making it difficult to integrate with new technologies and digital platforms.

This hinders the bank's ability to innovate and deliver new products and services quickly, impacting its competitive edge in the fast-paced financial sector.

### The Solution

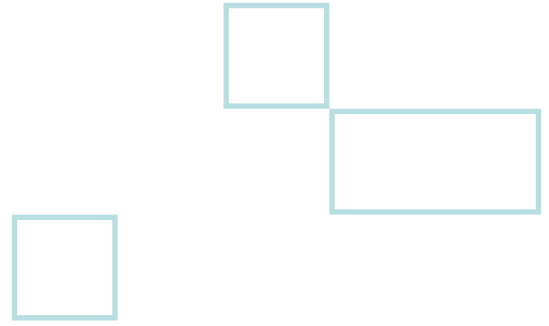
The first step involved a thorough analysis of the international bank's existing legacy system. This includes **understanding the system's** architecture, functionality, components, and business logic. It also included identifying the system's limitations and the challenges it poses in terms of cost, agility, and risk.

Based on the analysis, modernization **goals were defined**. These include increasing system agility, reducing operational costs, mitigating risk, and making the system compatible with digital, cloud, and DevOps platforms.

Inetum's refine x GenAI tool was implemented to start the modernization process. The tool **identified the legacy functions**, components, and methods directly from the code and provides technical and functional redocumentation.

The existing business logic was then **refactored and translated into high-quality, cloud-native Java code**.

# 04

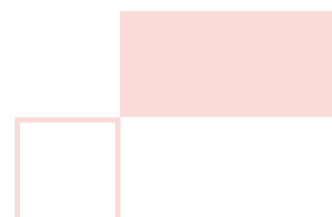


The refactored code was thoroughly **tested using the automatically generated test cases** from refine x GenAI. This ensured the integrity of the refactored code and validated that the modernized system works as expected.

A comprehensive **change management process** was implemented to ensure a smooth transition including trainings on the new system, updating documentation, and providing an interactive front-end for development teams to query the documentation repository.

## The Benefits

- The modernization process significantly increases the agility of the system, **enabling faster development and deployment** of new banking products and services.
- The use of modern technology and automation **reduces the cost by a factor of 4** to 10 of running legacy applications.
- By moving to modern technologies, the customer is now able to **reduce the risks** associated with legacy platforms, technical debt, and lack of legacy application skills.
- **The redocumentation process is five times faster**, reducing the time required by an experienced developer from 5 days to 1 day.
- Refactoring a Cobol program to Java code is **ten times more efficient**.
- The time and effort required to determine the root cause of a production incident is **reduced by 65–88%**, from 45 minutes to as little as 5 minutes.



# About Inetum

Inetum is a European leader in digital services. Inetum's team of 28,000 consultants and specialists strive every day to make a digital impact for businesses, public sector entities and society. Inetum's solutions aim at contributing to its clients' performance and innovation as well as the common good. Present in 19 countries with a dense network of sites, Inetum partners with major software publishers to meet the challenges of digital transformation with proximity and flexibility. Driven by its ambition for growth and scale, Inetum generated sales of 2.5 billion euros in 2023.

**For further information, please visit [www.inetum.com](http://www.inetum.com)**



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