# Genio: The power of Generative AI

Case study: Pension Management Software in Jamaica

Modernization of the Pension Payment System for the Accountant General's Department (AGD) of the Government of Jamaica.

Today, we'll explore the current challenges faced by the AGD in fulfilling its pension administration mandate and the proposed solution to address these issues.

The AGD serves a critical function in ensuring timely pension payments to public officers. This modernization initiative aims to replace the outdated Turbo Pay system with a comprehensive solution that will enhance service delivery to pensioners while ensuring regulatory compliance.
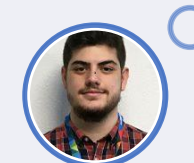
By Alexandre Valente

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Current Challenges with Pension Administration

1 Unsupported Legacy System

The current Turbo Pay software has experienced extensive system failures that impede efficient pension processing. The vendor no longer provides support due to a lapsed licensing agreement, creating significant operational risks.

2 Compliance Concerns

The system inadequacies threaten the AGD's ability to comply with the Financial Administration and Audit (FAA) Act and Instructions, potentially exposing the department to regulatory issues.

3 Service Delivery Limitations

The existing infrastructure cannot effectively support modern pension administration requirements, including timely processing, comprehensive reporting, and efficient life certification processes.

Pension System by the Numbers

Our pension system serves thousands of former public servants. Modernization will streamline payments and improve service delivery for this vulnerable population.

38K
Total Pensioners
Active beneficiaries receiving monthly payments through the system.

71
Average Age
Most users are elderly, making system simplicity and reliability critical.

US$250M
Annual Payments
Total disbursements processed monthly, requiring robust financial controls.

These figures underscore the critical importance of a reliable, secure pension management system that can handle significant transaction volumes while serving an aging population.

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Proposed Pension Payment System Overview

Pensioner Administration

1 Comprehensive management of pensioner personal information, pensioner records, and compensation history with intuitive interfaces for data maintenance.

Life Certificate Processing

2 Streamlined workflows for verifying pensioner status, with automated notifications and processing capabilities to ensure timely verification.

Pension Payment

3 Accurate and timely disbursement of pension payments with robust controls, audit trails, and reporting features to maintain financial integrity.

Project Objectives and Deliverables

Adaptable Architecture —— 1

Implement a flexible system that permits expansion of capabilities with minimum rework in response to changing business needs and regulatory requirements.

2 —— **End-to-End Implementation**

Deliver a comprehensive solution covering systems analysis, testing, software deployment, customization, integration, data migration, and training.
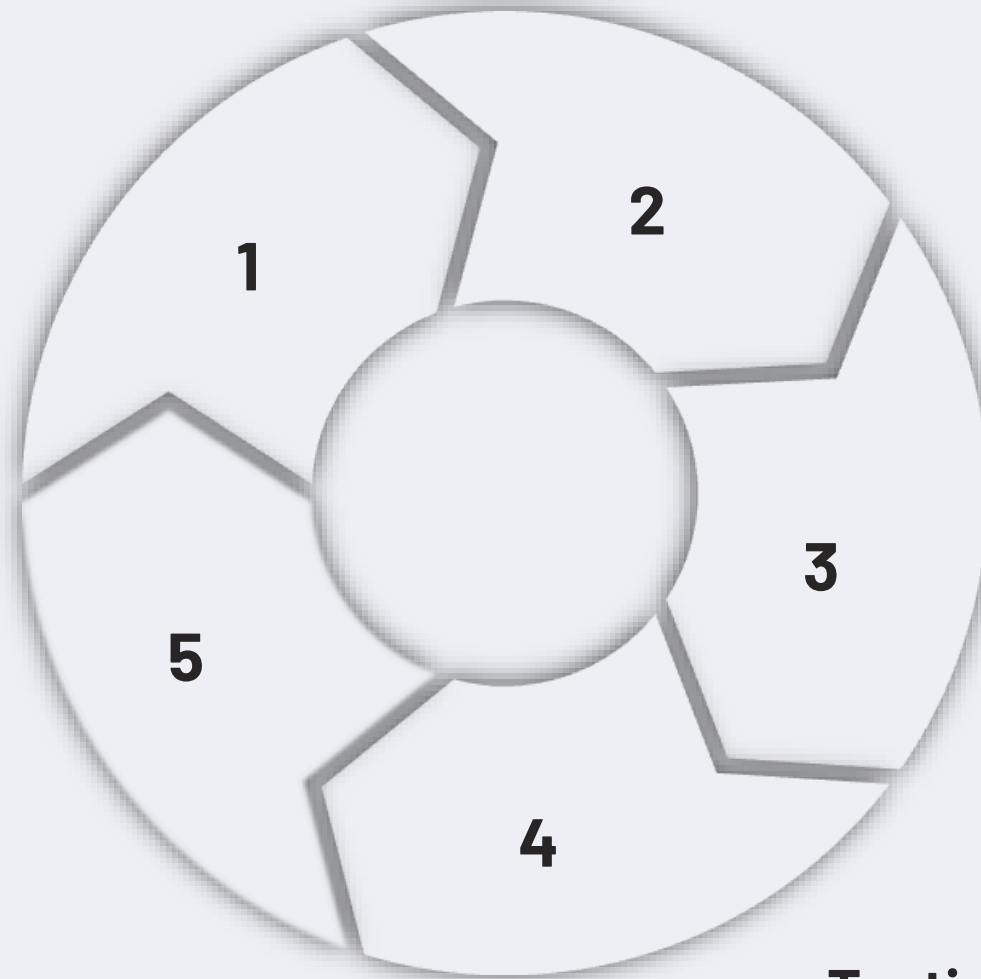
Robust Support Framework —— 3

Establish both implementation support during the transition and post-implementation support to ensure continuous system availability and performance.

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Implementation Scope and Approach

Analysis & Design

Detailed mapping of requirements to solution capabilities

Project Management

Comprehensive oversight throughout the project lifecycle

Software Implementation

Installation and configuration of all system components

1

2

3

4

5

Training & Support

Knowledge transfer and continuous assistance

Testing & Validation

Rigorous verification of all functional requirements

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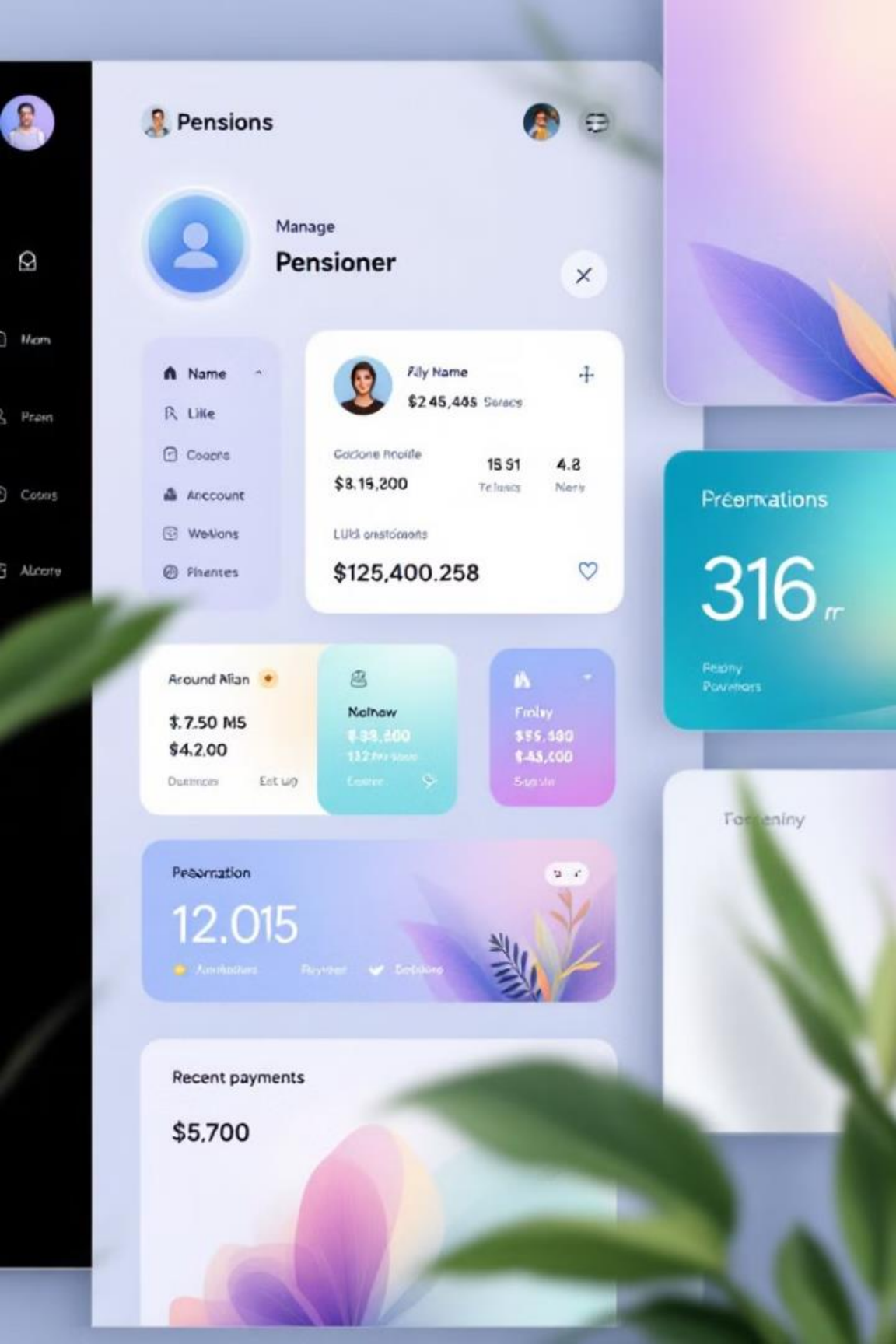
Core System Functionalities

Pensioner Information Management

Comprehensive storage and maintenance of personal details, employment history, and compensation records for all pensioners. The system will maintain historical data while providing easy access to current information.

Payment Processing

Automated calculation and disbursement of pension payments with integrated validation checks. The system will handle various payment scenarios including regular pensions, death benefits, and dependent payments.

Life Certification

Streamlined verification process with automated reminders and status tracking. Digital options for certificate submission will reduce paperwork and improve processing efficiency.

Communication Management

Automated distribution of life certificates and pay advices via email and in exportable file formats. Enhanced communication channels will improve pensioner engagement and satisfaction.

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Reporting and Analytics Capabilities

Statistical Analysis

Robust tools for collection and analysis of pension-related statistics, enabling data-driven decision making and trend identification. The system will provide both standard and customizable reports.

Standard Reporting

Comprehensive suite of predefined reports covering operational, financial, and compliance requirements. These reports will support both regular operations and audit needs.

Audit Trails

Detailed logging of all system activities for security monitoring and compliance verification. Complete audit trails will document all transactions and changes.

Online Queries

Intuitive interface for ad-hoc data exploration and custom report generation. Users will be able to quickly access specific information without technical assistance.

Security and Compliance Features

1
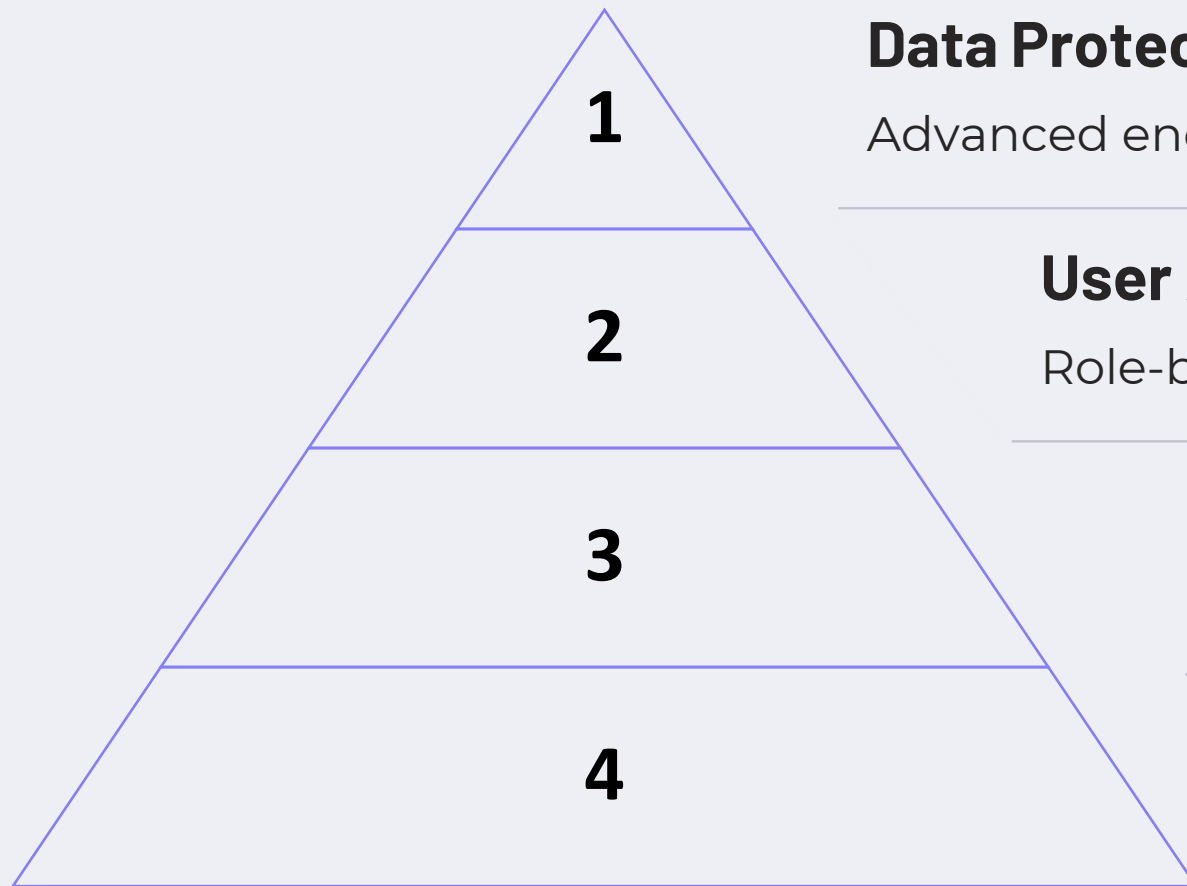
Data Protection
Advanced encryption and privacy controls

2

User Authentication
Role-based access management

3

Audit Controls
Comprehensive activity logging

4

Regulatory Compliance
FAA Act adherence mechanisms

The new system will feature robust security measures to protect sensitive pensioner data while ensuring full compliance with relevant regulations. User account security will be maintained through comprehensive role-based access controls, ensuring that staff members only access information necessary for their specific job functions.

All system activities will generate detailed audit trails, providing transparency and accountability. These security features will work together to safeguard pensioner information while maintaining the integrity of the pension administration process.

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Training and Knowledge Transfer

1

Train-the-Trainer Program

Comprehensive education for key staff

2

System Administrator Training

Technical configuration and support skills

3

End-User Training

Practical operational procedures

4

Documentation & Resources

Reference materials and support guidelines

A comprehensive training strategy will ensure that AGD staff can fully utilize the new system's capabilities. The vendor will deliver specialized training for system administrators, covering configuration, customization, user account administration, and backup procedures.

The train-the-trainer approach will create internal expertise, allowing the AGD to efficiently onboard new users and maintain knowledge continuity. All training will be supported by detailed documentation and ongoing access to implementation resources.

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Implementation and Next Steps
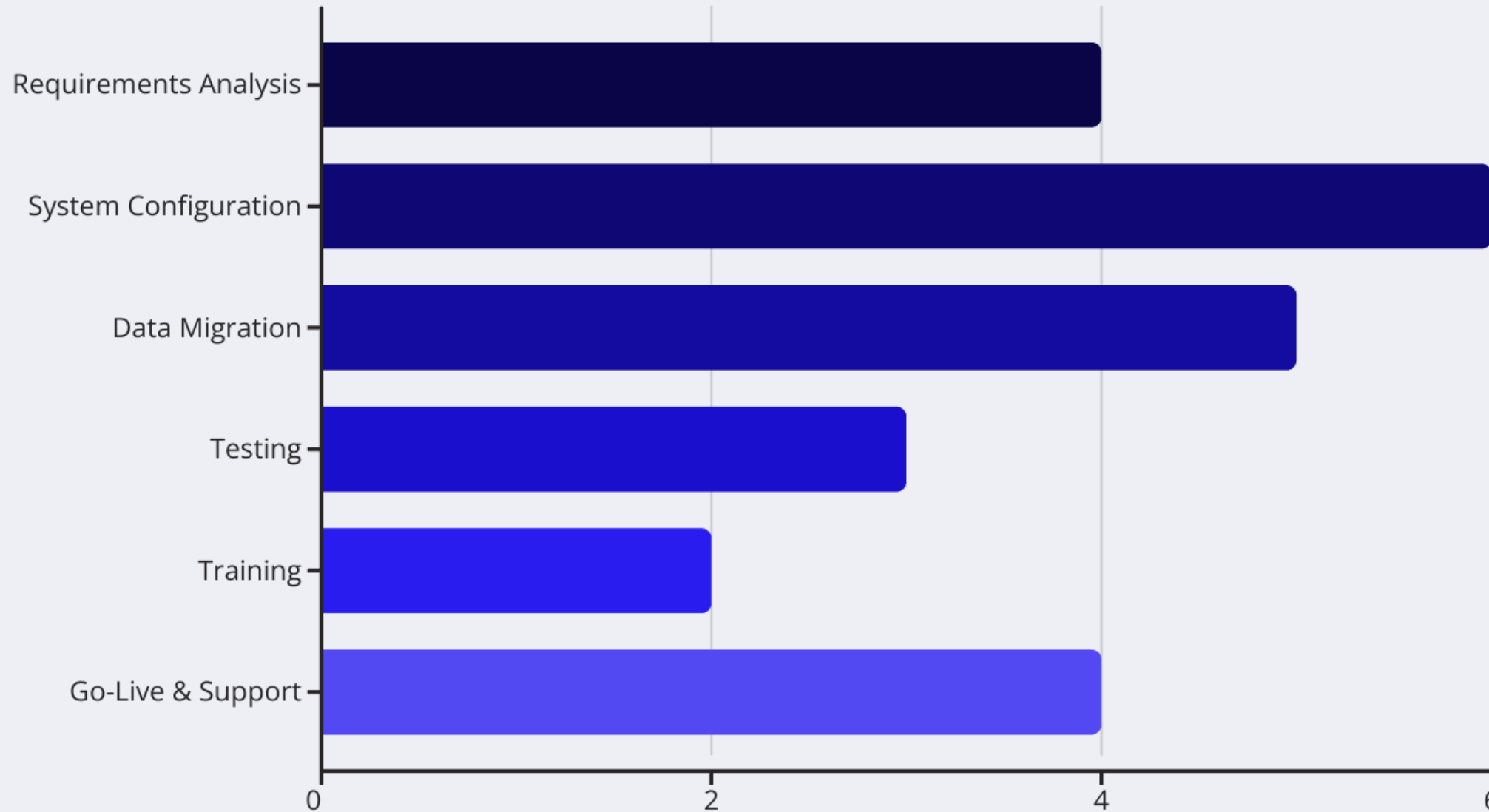
The implementation is structured as a phased approach.

This approach minimizes disruption while ensuring a complete transition to the new system.

Key steps include conducting detailed requirements workshops, and establishing the project governance structure.

Ensure alignment with business objectives and successful deployment within established timelines.

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The Solution by Genio

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Future Project: Pensioner Self-Service Portal

Personalized Dashboard

Secure access to personal pension information and payment details. Real-time updates on life certificate status and upcoming payment dates.

Digital Document Management

Download payslips, life certificates, and P24 forms instantly. Access frequently used forms and submit change requests electronically.

Self-Service Capabilities

Update personal information, bank details, and contact information. Track request status with automatic notifications via email and SMS.

Mobile Responsive Design

Fully optimized for smartphones and tablets. Includes integrated AGD Live Chat support for immediate assistance.

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About us:
Empowering Businesses with Generative AI Solutions

Pioneering Intelligent Software Generation

Quidgest has thrived, not following the beaten path.

We've stayed true to our out-of-the-box thinking and maintained the spirit of a startup, even after 36 years.

That's why we find ourselves on the right side of the history of digital transformation with our top-performing customers and partners.

JOÃO PAULO CARVALHO
Co-Founder and Senior Partner at Quidgest

Quidgest

A journey focused on innovation

LEADERSHIP

Since 1988, Quidgest has led in intelligent software generation. Our Genio platform, a model-driven generative AI tool, delivers tailored applications with unprecedented speed and efficiency.

DIGITAL TRANSFORMATION

By leveraging advanced AI techniques, we empower organizations to optimize their processes, enhance decision-making, and achieve their digital transformation goals.

TRUST

Quidgest's commitment to excellence and continuous improvement has earned us the trust of governments, multinational corporations, and global institutions.

Quidgest

Vision and global presence

VISION

Lead digital transformation worldwide with innovative and cutting-edge software solutions.

GLOBAL REACH

Portuguese origin, now a global leader in software modeling and generation.

PORTFOLIO

Vast solutions across 10 business areas and 6 industries, combining tech expertise with business knowledge.

Headquarters

Affiliates   Partners and Projects

Quidgest

Our process: agile and client-centric

Agile Methodology
Flexible, client-centered development ensures adaptability and responsiveness to changing requirements.

Collaborative Development
We partner with clients to understand their unique needs, ensuring the final solution aligns perfectly with their goals.

Phased Implementation
Projects are executed in phases, minimizing risk and allowing for iterative improvements and early benefits.

Ongoing Support
Post-deployment, we provide continuous support, updates, and enhancements to keep your systems at peak performance.

Quality Assurance and Testing
Quality is built into every step of our process. Rigorous tests ensure your solution is stable, secure, and ready for real-world usage.

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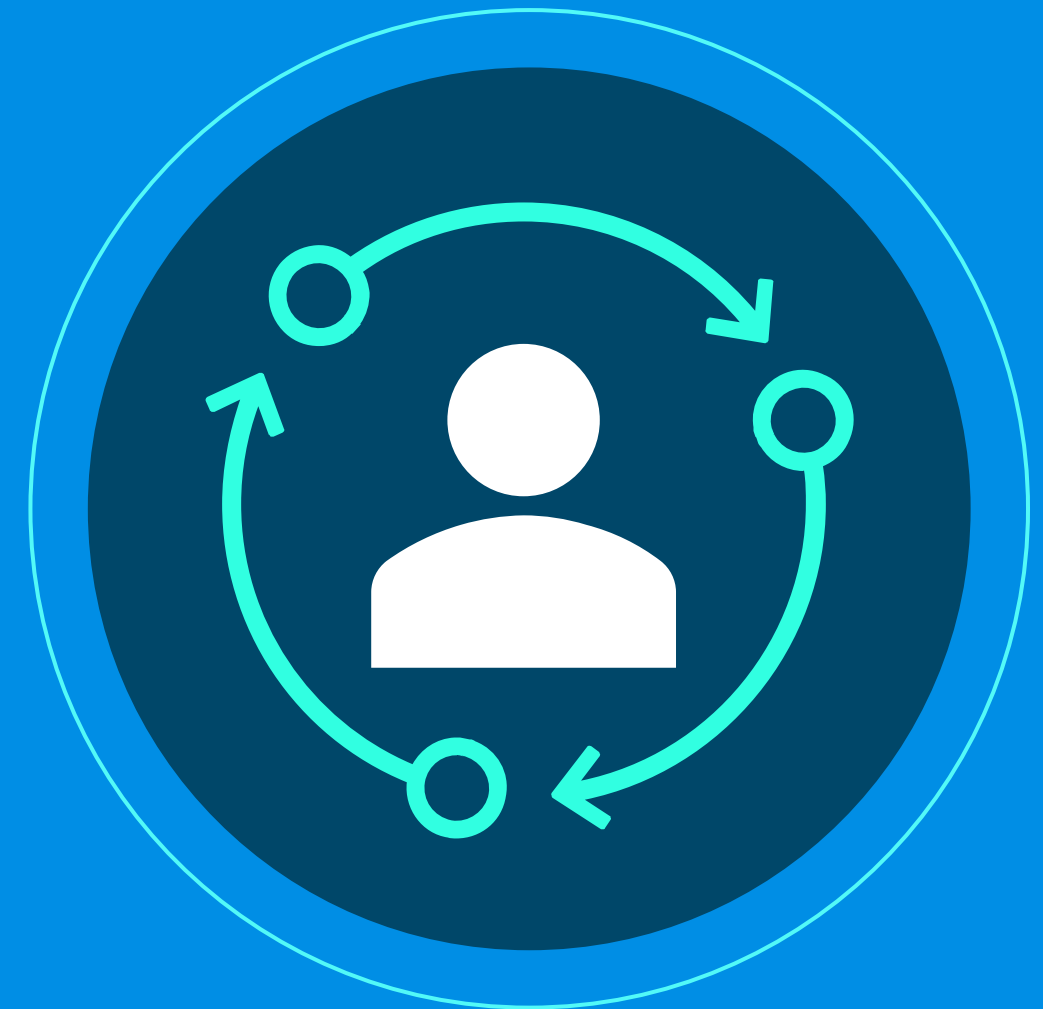
Transforming every domain of your organization

Business Units

Human Resources
Payroll, attendance, travel and claims, recruitment and selection, performance and competencies, training and development, agile learning experience, employee and manager's self-service portals

Finance
Credit management, billing, budget management, accountability, financial management of projects, management of revenue guides, control, homebanking

Procurement & Assets
Contract management, procurement management, insurance policy, litigation management | Works, maintenance and conservation management, infrastructure and equipment maintenance

Documents & Processes Management
Business processes management | Document management and integrated customer management, record management, integrated information management, mailing and correspondence

Logistics & Distribution
Stocks management | Receipt and materials disposal | Meals management | Fleet management | Sensing and Internet of Things

Operations: Core Production or Services
Project Management | Specific ERP | Industry-specific solutions | Digital twins | Legacy system replacement | Operational team management

Sales & Customer or Citizen Relationship
Sales and opportunity management | CRM | Single window portals

Strategy, Quality & Innovation
Balanced scorecard, Business view, KPI management | Quality Management | Innovation and knowledge base management
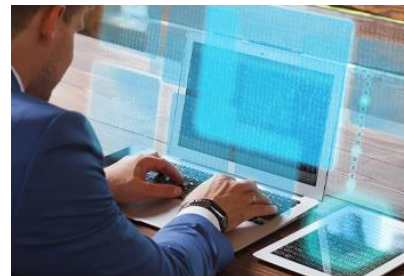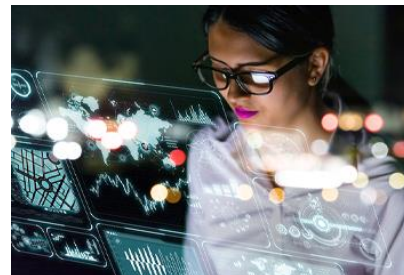
Audits, Compliance & Risk Management
Data protection management, Data subjects and suppliers portals | Banking regulatory reporting | Anti money-laundering | GRC, Risk Assessment, Incident Management, Audit Planning and Execution

Research, IT Development, and IT Management
Genio, Data lakes, Smart query, New technology research, Outsourcing

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Transforming every domain of your organization

Industries

| Healthcare | Banking, Insurance and Financial Services | Regulation | Government | Engineering, Construction, Public works, Energy and Environment | Global Development |

Advanced technology solutions

| ERP | Legacy systems update | Digital twins | Shared services |

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Genio Platform: the Power of Hybrid Generative AI

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Genio: revolutionizing software development

Genio platform powered by **hybrid generative AI** is at the **core** of our software development. It **automates up to 95% of the code creation**, allowing our teams to focus on crafting the unique, business-specific features that set your solutions apart. This approach dramatically shortens **time-to-market** and reduces **development costs**.

This unique approach to software development uses high-level models, automation, and rule-based generative AI

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Genio Interface
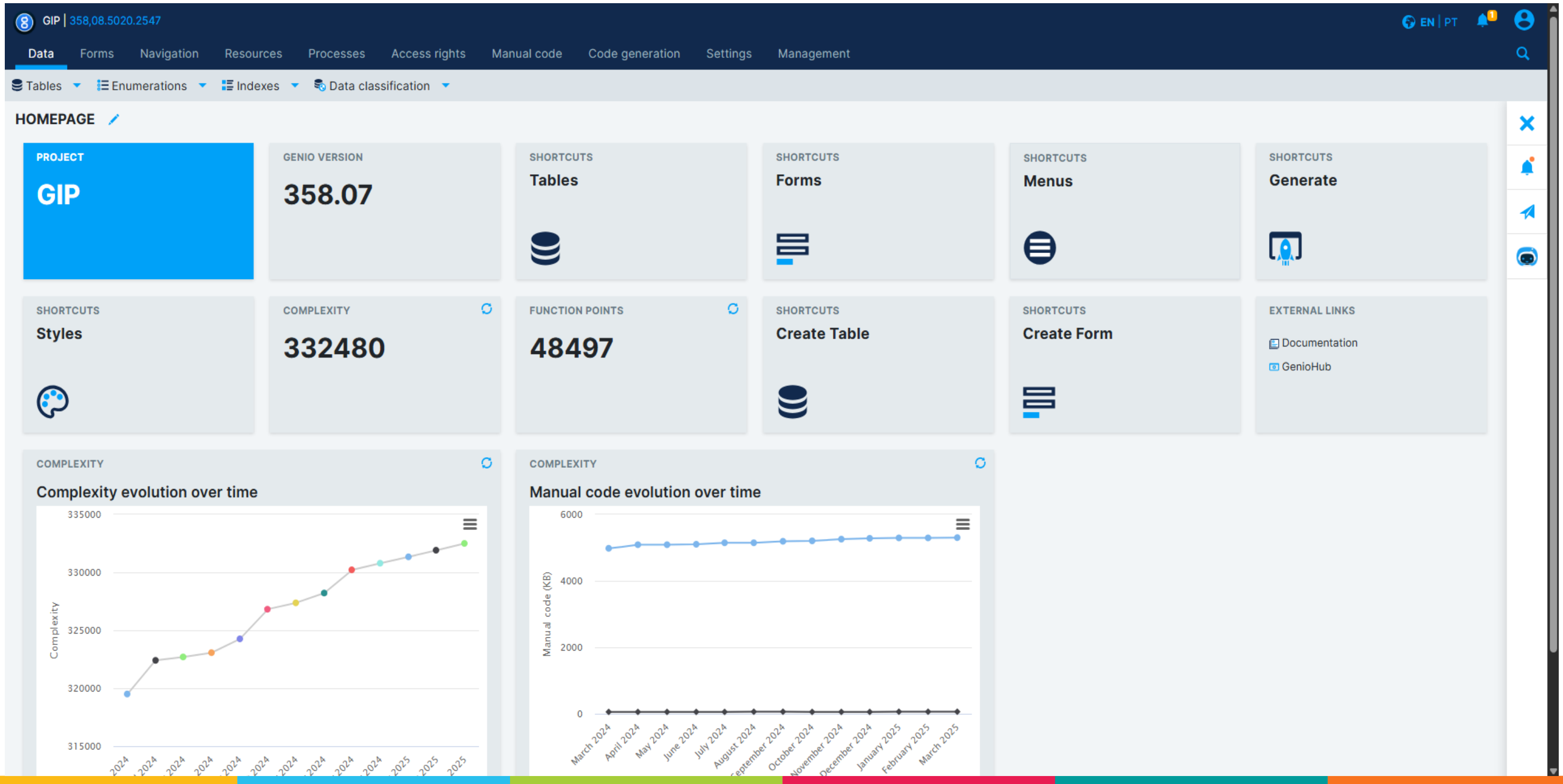
Genio-driven solutions: dynamic and evolving

**Genio R&D evolves and pairs with Gen AI in three deliberate steps**

(1) Patterns

Genio R&D identifies and refines patterns representing common functionalities, processes, and best practices. These patterns are the foundation, ensuring **consistency, quality, and adaptability** in the solutions it generates.

(2) Models

For each business, models set up and gather these patterns, supported by templates that guide the code generation. This step integrates **technological advancements**, such as new coding standards or emerging platforms, ensuring **innovative generated systems**.

(3) Application

Generative AI ensures that the transformation from model to application is **efficient, error-free, and optimized** for current needs and future scalability.

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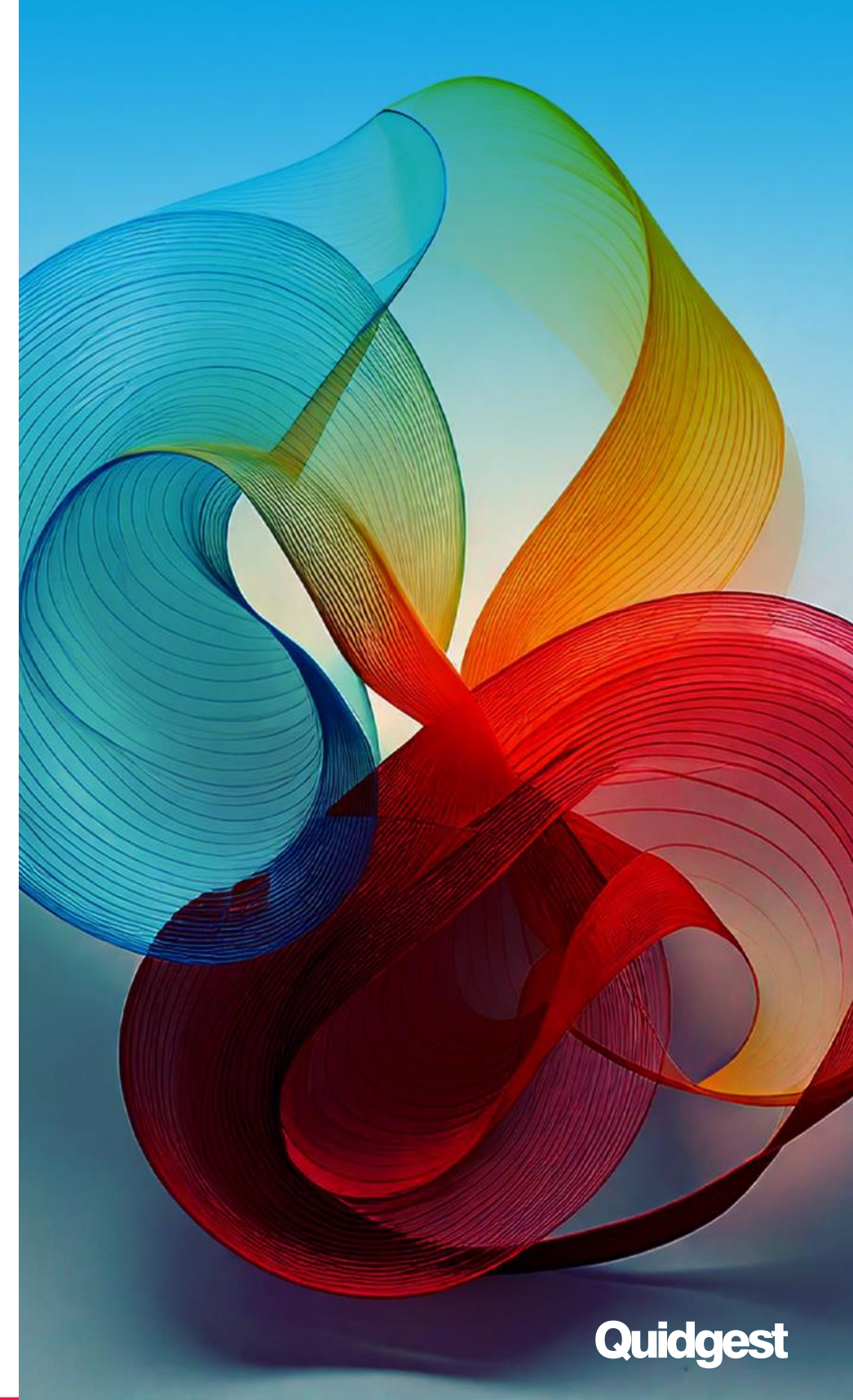
Tangible benefits of Genio Generative AI

30%
Average decrease of Total Cost of Ownership. No lock-in.

8x
Faster deployment than standard low-code platforms

1/8
Of the required resources regarding low-code

10x
Increase on IT Initiatives

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A global footprint in digital transformation

→ From local enterprises to global institutions, our solutions empower organizations of all sizes across diverse industries.

→ Trusted by governments, enterprises, and financial institutions, we drive innovation in both the public and private sectors.

→ Implementations across multiple geographies worldwide.

The following success cases show that Quidgest is more than a software provider – **we are a strategic partner driving digital transformation at scale.**

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Ready to join our team?

Contact us:
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