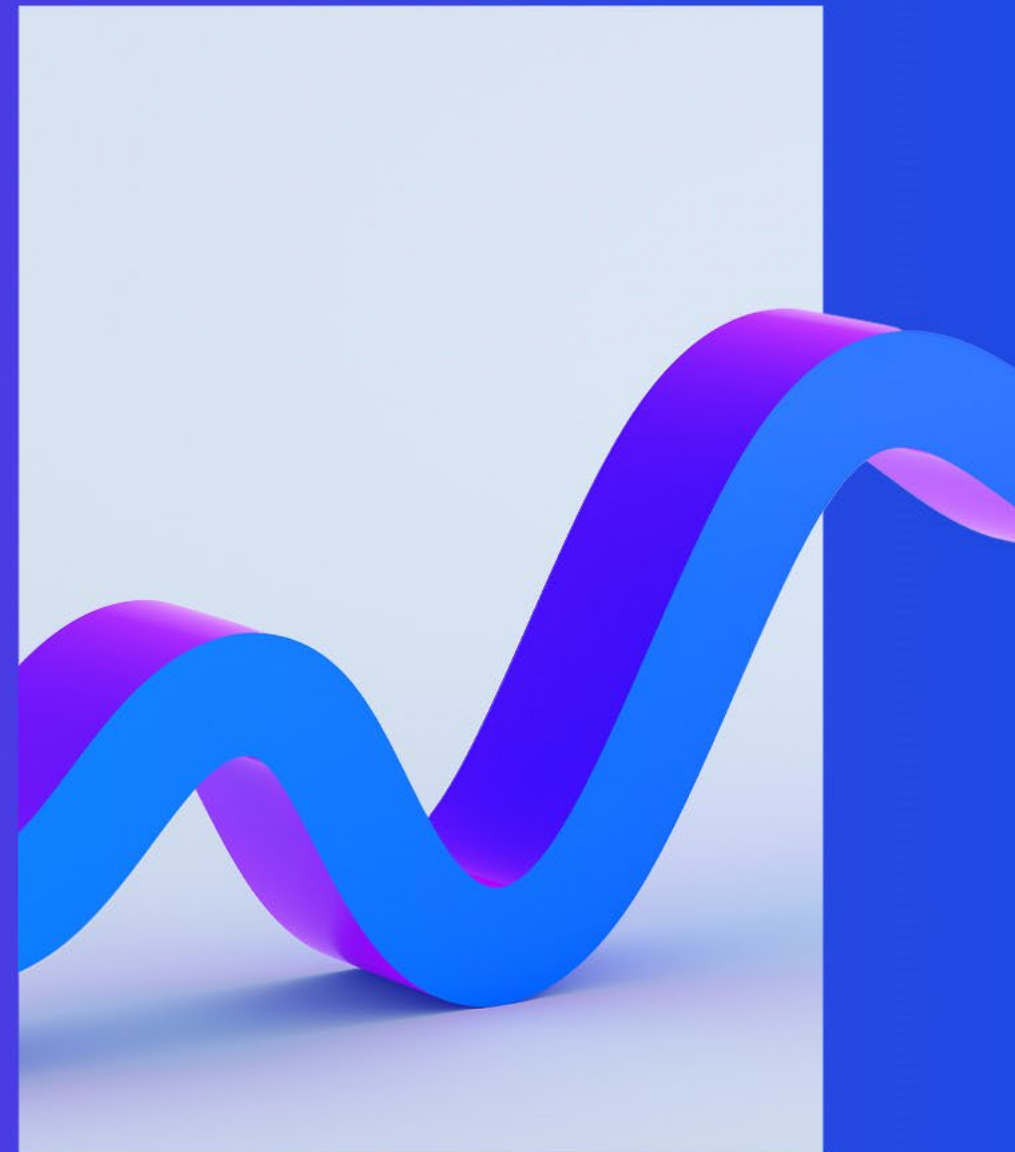# The power to innovate through software

Intelligent Automation

April 2023

KPMG Lighthouse

Our Digital Lighthouse and Ignition network provides many of the core technical skills across Low-Code, RPA, AI, Analytics, and Innovation

23 local Lighthouses established, with another 11 in progress

Insights Centers established or in development globally, which bring our AI solutions to life

23 + 11

20

2022 Investment for AI, Analytics, and Automation across Global and US to support R&D, and deployment of platforms and solutions

$80+ M

Automation Delivery Employees in Advisory globally

13,000

Dedicated AI Experts & Data Scientists

3,800+

Low-Code Technology Expert* Employees globally

1,000+

*Employees with certifications or significant experience in Appian, Outsystems, Pegasystems, and/or ServiceNow
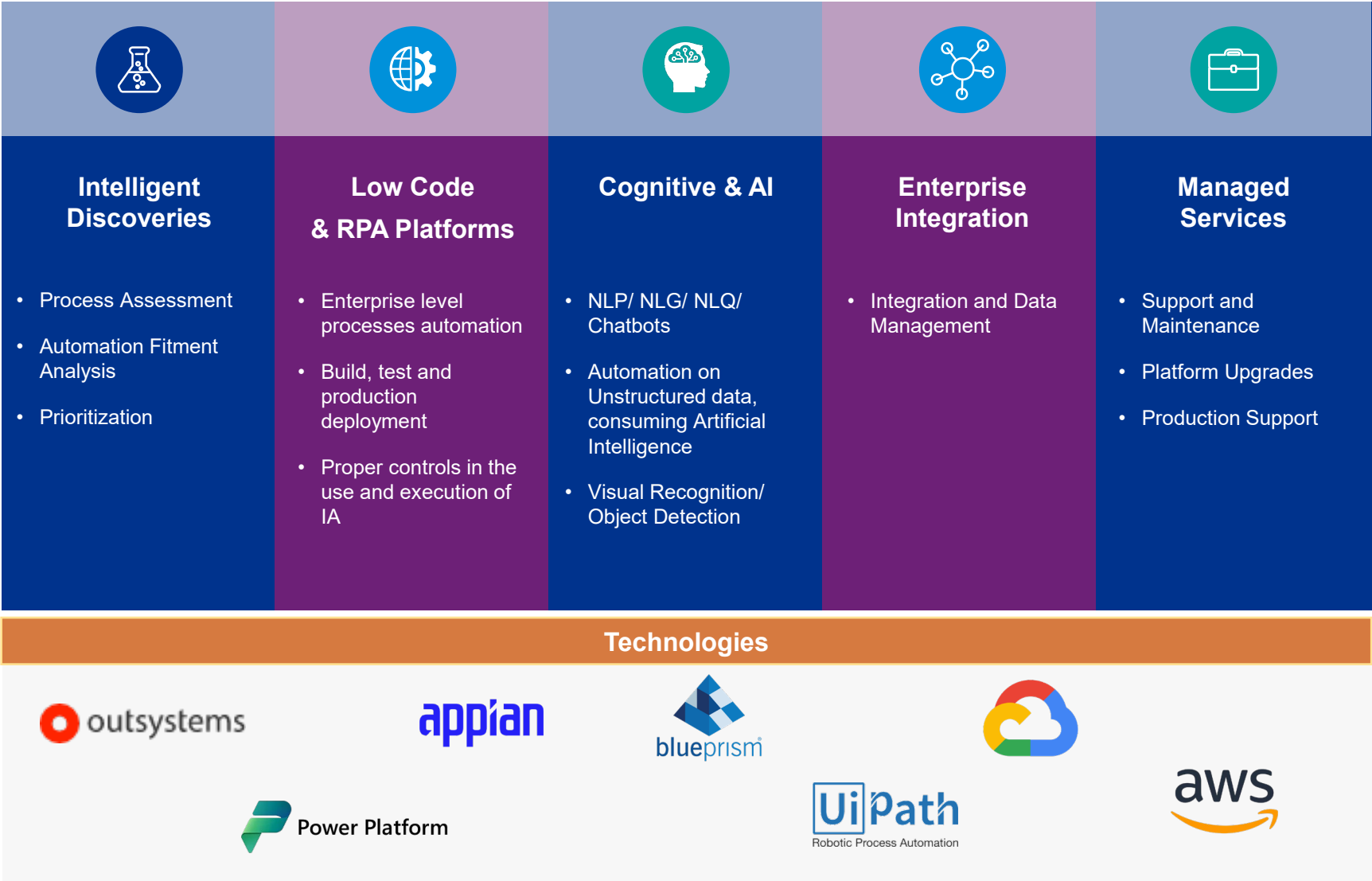

Norway:
— Lighthouse

Denmark:
— Lighthouse

Switzerland:
— Lighthouse

Netherlands:
— Lighthouse
— Ignition Center

Russia:
— Lighthouse

Germany:
— Lighthouse
— Ignition Center

Canada:
— Lighthouse

Japan:
— Lighthouse
— Ignition Center

United Kingdom:
— Lighthouse
— Ignition Center

South Korea:
— Lighthouse
— Ignition Center

United States:
— Lighthouse
— Ignition Centers
— Global Delivery Center

Portugal:
— Lighthouse
— Global Delivery Center

China/Hong Kong:
— Lighthouse
— Ignition Center

Mexico:
— Lighthouse

Spain:
— Lighthouse

India:
— Lighthouse
— Global Delivery COE

Colombia:
— Global Delivery Center

Italy:
— Lighthouse
— Ignition Cente

Singapore:
— Lighthouse

Brazil:
— Lighthouse

Israel:
— Global Delivery Center

Nigeria:
— Ignition Center

Australia + New Zealand:
— Lighthouse
— Ignition Centers

We believe the future of Intelligent Automation will...

Automation

IA

Analytics

AI

- Be delivered as part of the business operations
- Drive rapid value through component-based architecture
- Provide continuous delivery of new and improved Customer Experience
- Develop an ecosystem to deliver cross-organizational capabilities
- Automate and augment business processes and IT capabilities
- Unlock value, insight and business decision making through data

IA-driven transformation permeates the entire enterprise

Intelligent Automation – what we do

Intelligent Discoveries	Low Code & RPA Platforms	Cognitive & AI	Enterprise Integration	Managed Services
• Process Assessment • Automation Fitment Analysis • Prioritization	• Enterprise level processes automation • Build, test and production deployment • Proper controls in the use and execution of IA	• NLP/ NLG/ NLQ/ Chatbots • Automation on Unstructured data, consuming Artificial Intelligence • Visual Recognition/ Object Detection	• Integration and Data Management	• Support and Maintenance • Platform Upgrades • Production Support

Technologies

outsystems · appian · blueprism · Google Cloud

Power Platform · UiPath Robotic Process Automation · aws

Intelligent Automation – our vision

Data & Systems · **Finance** · **Business** · **Reporting Teams** · **Regulator**

Digital Experience

Web · Mobile · Device

Robotic Process Automation

- Macro Based Scripting
- Screen Scraping

Cognitive Services

- NLP & NLU
- Visual Recognition
- Virtual Assistance

Process orchestration and collaborations

Low Code

Process overview and performance management

Connected platforms and integration solutions

Enterprise Landscape

- Security
- Enterprise Applications
- SaaS Applications
- Cloud Services
- Integration Services
- Enterprise Data
- Analytics

Reporting process

Business rules management and activities monitoring

Decision management

Exceptions handling

Focus - What is Low-Code?

Traditional Development

(Manual (Human error), Slow, Resource Intensive)
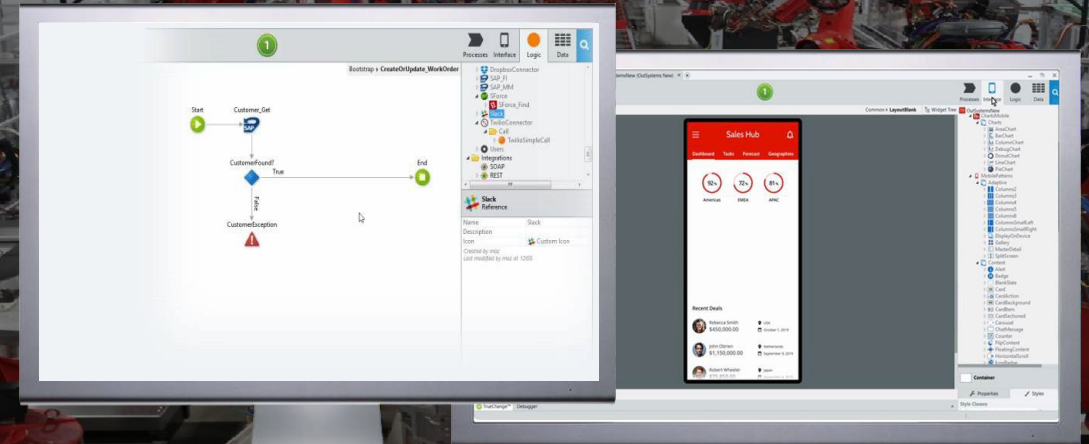
Low Code

(Automated, Standardized, Fast, Optimized)

What is Low-Code?

Low-Code is an **app development approach**. It combines tools that simplify the entire development process to enable accelerated delivery of business applications. Low-Code requires **little to no coding** skills.

It's a visual approach to software development such as graphical user interfaces, drag-and-drop options and point-and-click interfaces that can be applied **without having to write traditional code**. That in combination with numerous out-of-the-box accelerators (e.g., BI module, workflow engine, etc.) allow organizations to build **better** enterprise grade applications **faster** hence lowering the time-to-market of solutions.

Due to the **easy adoption**, Low-Code allows for **quicker** development and deployment of solutions with **easier** access to resources due to easier training, reskilling and upskilling of professionals vs. traditional development and thus enabling users to be **productive** quicker.

If set up properly, Low-Code programs can deliver **solutions** with limited involvement of IT departments, support improved collaboration, adopt **agile** ways of working, and reduce the IT backlog.

Low-Code **bridges** the gap between the IT infrastructure and the business users to fulfil their specific process requirements.

Low-Code gives organisations the flexibility to **reuse** solution components (e.g., SSO) in various applications reducing the total cost of ownership. Most Low-Code platforms offer multi-device experiences out-of-the-box, providing end users with a consistent experience on any device.

Additionally, 70% of users who had no experience before using Low-Code platforms **learned in one month or less** to develop meaningful apps. This allowed them to **quickly** build smaller scale applications for their departments themselves. A well-structured master data management as well as a sophisticated governance strategy are prerequisites for incorporating such apps into the organisation. Low-Code not only enables organisations to **solve distinct problems** like RPA (robotic process automation), workflow customization and business intelligence. It also allows for **maximum flexibility** in times of increased demand for digital transformation.

Why is Low-Code Important?

Advantages of Low-Code

Low-Code increases **agility** through tailored solutions for each company and department on a stable platform and provides a higher cost-efficiency through the utilization of citizen developers. The technology **reduces maintenance** and contains **flexible** roll out of updates due to the use of pre-built modules.

Gartner states that
up to **70%**
of all business applications will be developed through Low-Code platforms.[1]

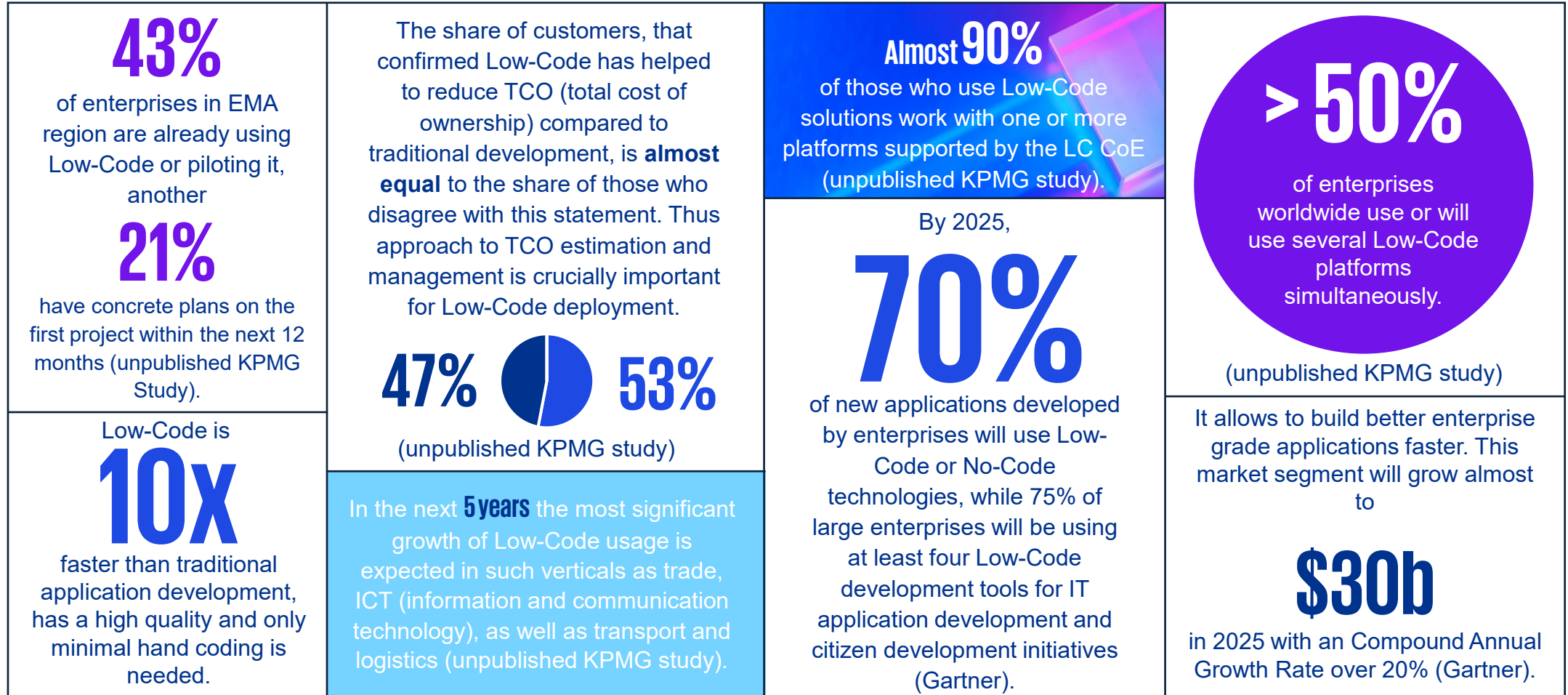Analysts predict that Low-Code will become the preferred software development method by

2025.

Low-Code supports **innovation** by speeding up development cycles. It is a gradual and modular replacement of legacy systems and delivers systematic workflow automation in a very short time. Filtered data insights allow for **easy accessibility**. Moreover, Low-Code reduces relevant administrative processes driven by Optical Character Recognition (OCR), Machine Learning (ML) and automation.
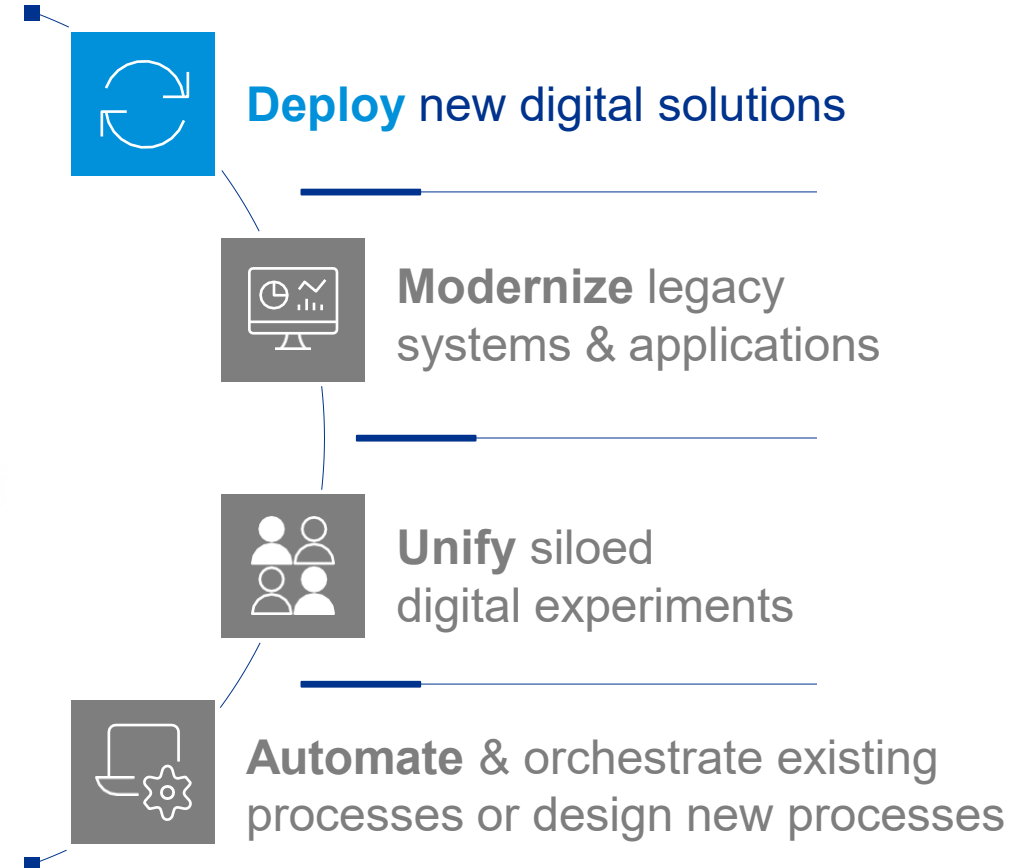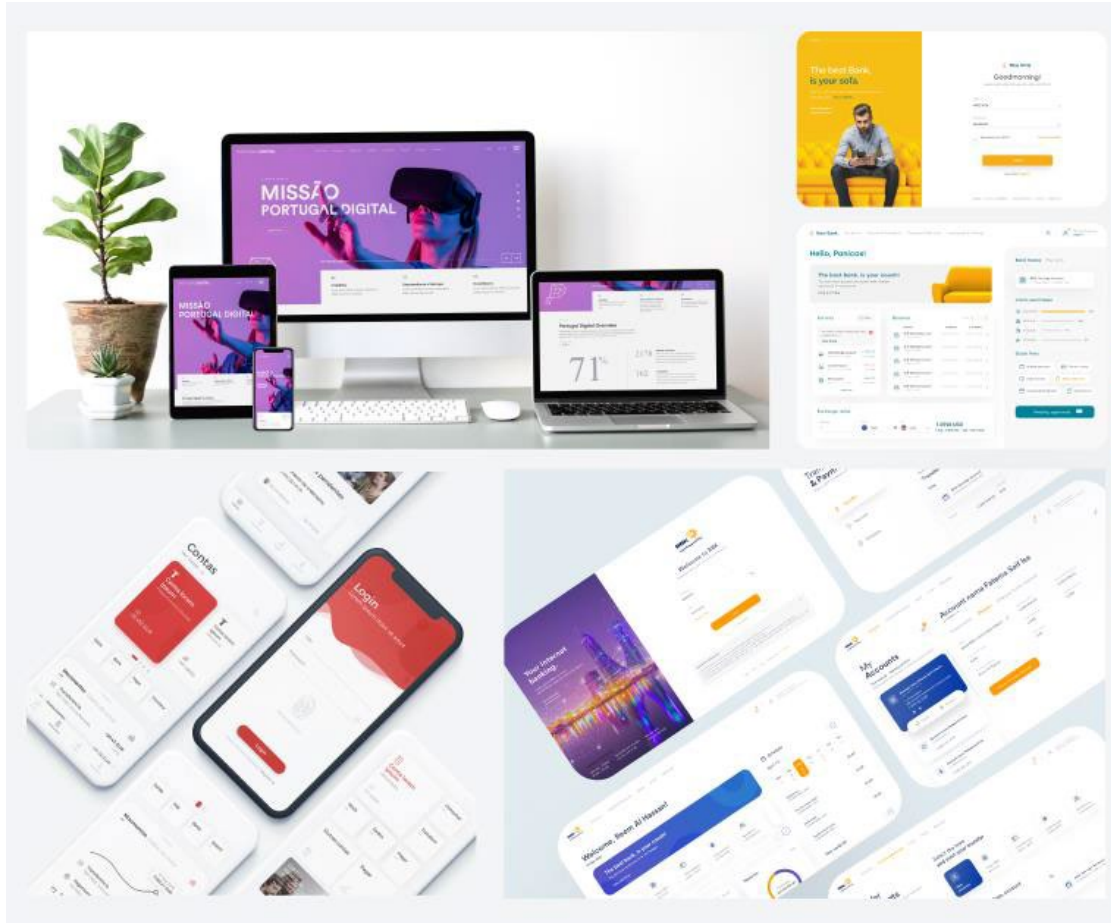
[1]**Source: Forecast Analysis: Low-Code Development Technologies, Gartner, 22.01.2021**
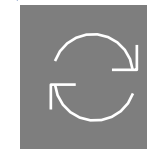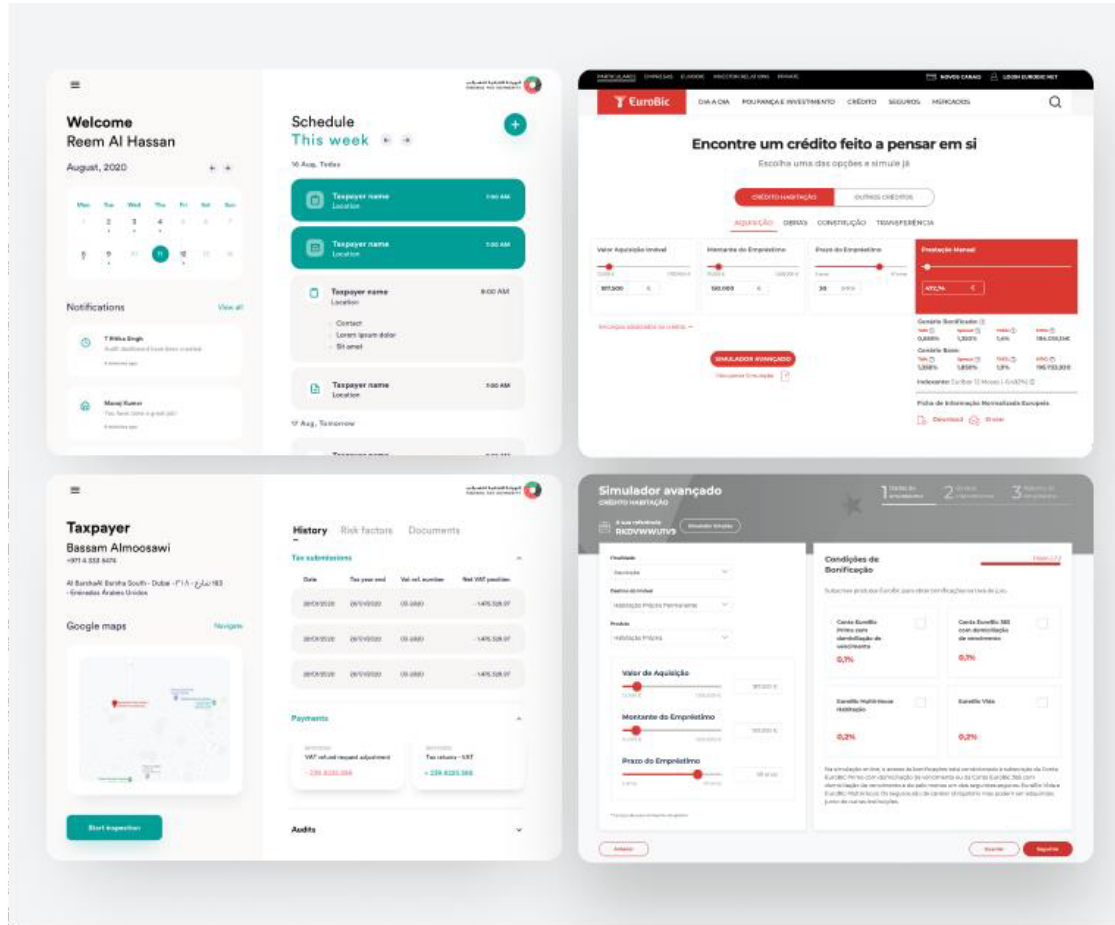
Global Low-Code Trends

43% of enterprises in EMA region are already using Low-Code or piloting it, another **21%** have concrete plans on the first project within the next 12 months (unpublished KPMG Study).

Low-Code is **10x** faster than traditional application development, has a high quality and only minimal hand coding is needed.

The share of customers, that confirmed Low-Code has helped to reduce TCO (total cost of ownership) compared to traditional development, is **almost equal** to the share of those who disagree with this statement. Thus approach to TCO estimation and management is crucially important for Low-Code deployment.

47% **53%**

(unpublished KPMG study)

In the next **5 years** the most significant growth of Low-Code usage is expected in such verticals as trade, ICT (information and communication technology), as well as transport and logistics (unpublished KPMG study).

Almost **90%** of those who use Low-Code solutions work with one or more platforms supported by the LC CoE (unpublished KPMG study).

By 2025, **70%** of new applications developed by enterprises will use Low-Code or No-Code technologies, while 75% of large enterprises will be using at least four Low-Code development tools for IT application development and citizen development initiatives (Gartner).

> 50% of enterprises worldwide use or will use several Low-Code platforms simultaneously.

(unpublished KPMG study)

It allows to build better enterprise grade applications faster. This market segment will grow almost to **$30b** in 2025 with an Compound Annual Growth Rate over 20% (Gartner).

Leading enterprises are adopting low-code to accelerate the digital journey

Deploy new digital solutions
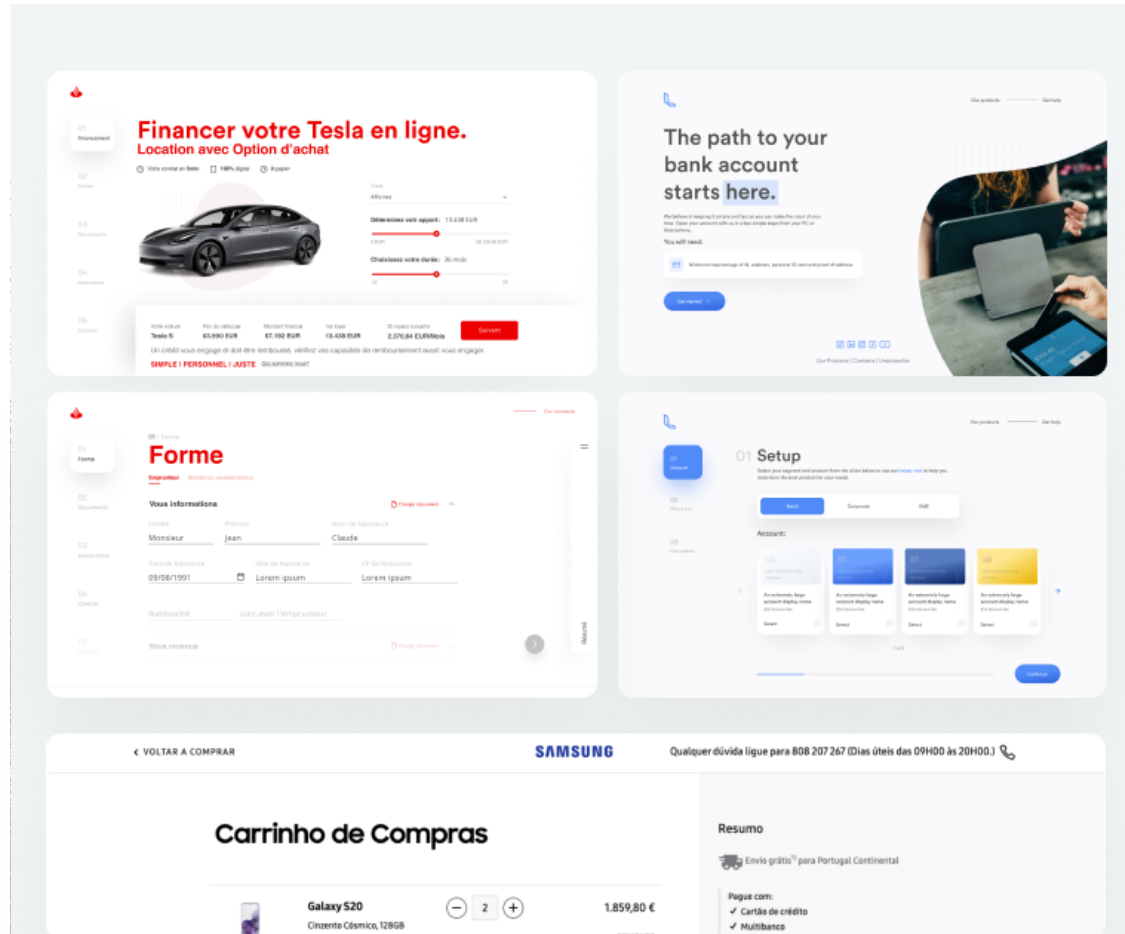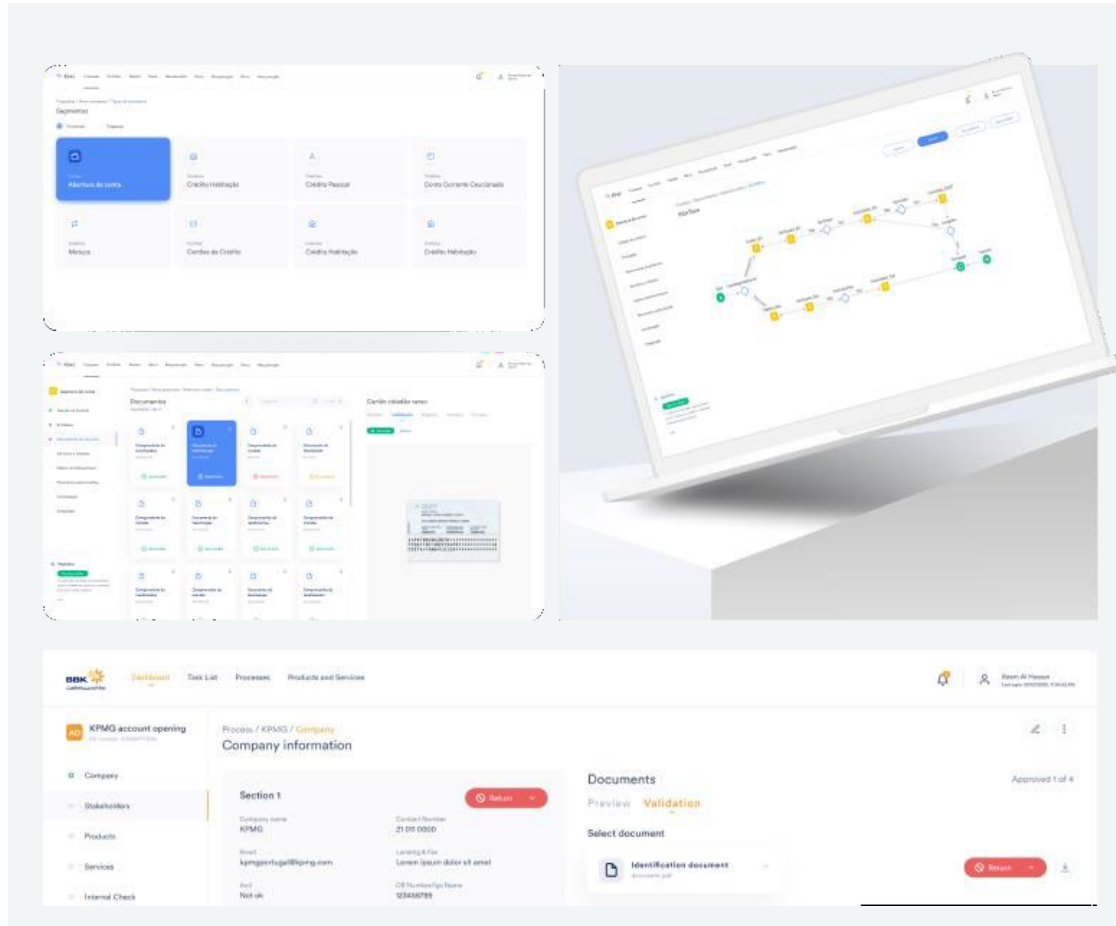
Modernize legacy systems & applications

Unify siloed digital experiments

Automate & orchestrate existing processes or design new processes

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Low-Code Landscape

Niches and Functionality

BPM / DPA Platforms

Business Process Management (BPM)/ Digital Process Automation (DPA) platforms offer advanced process and workflow automation capabilities leveraging visual process builders, business rule engines and case management abilities.
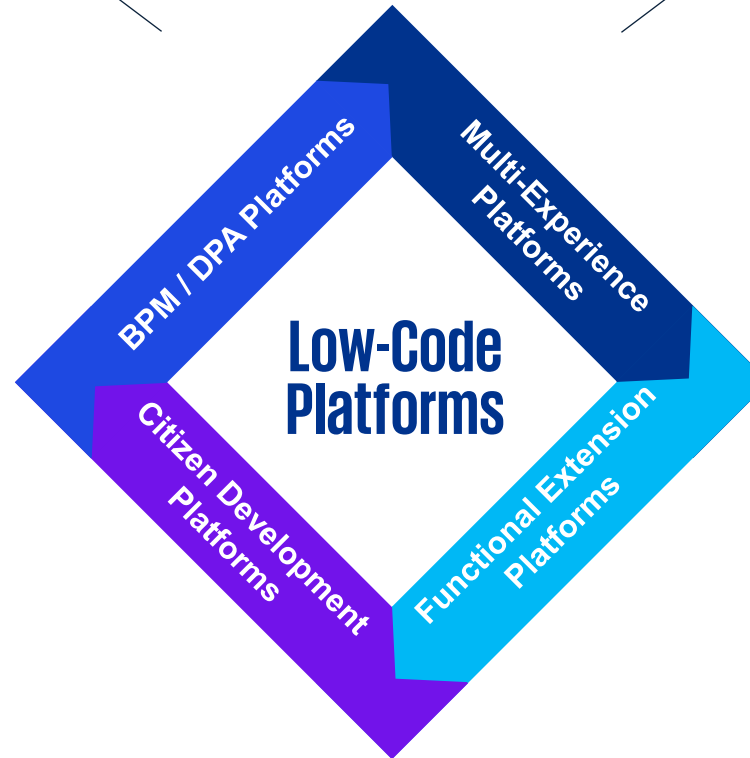
Multi-Experience Platforms

Low-Code/Multi-Experience platforms enable a quick delivery of apps which can be deployed across multiple digital touchpoints with functionalities for AR/VR and other intelligent automation to drive feature-rich interconnected user experiences.
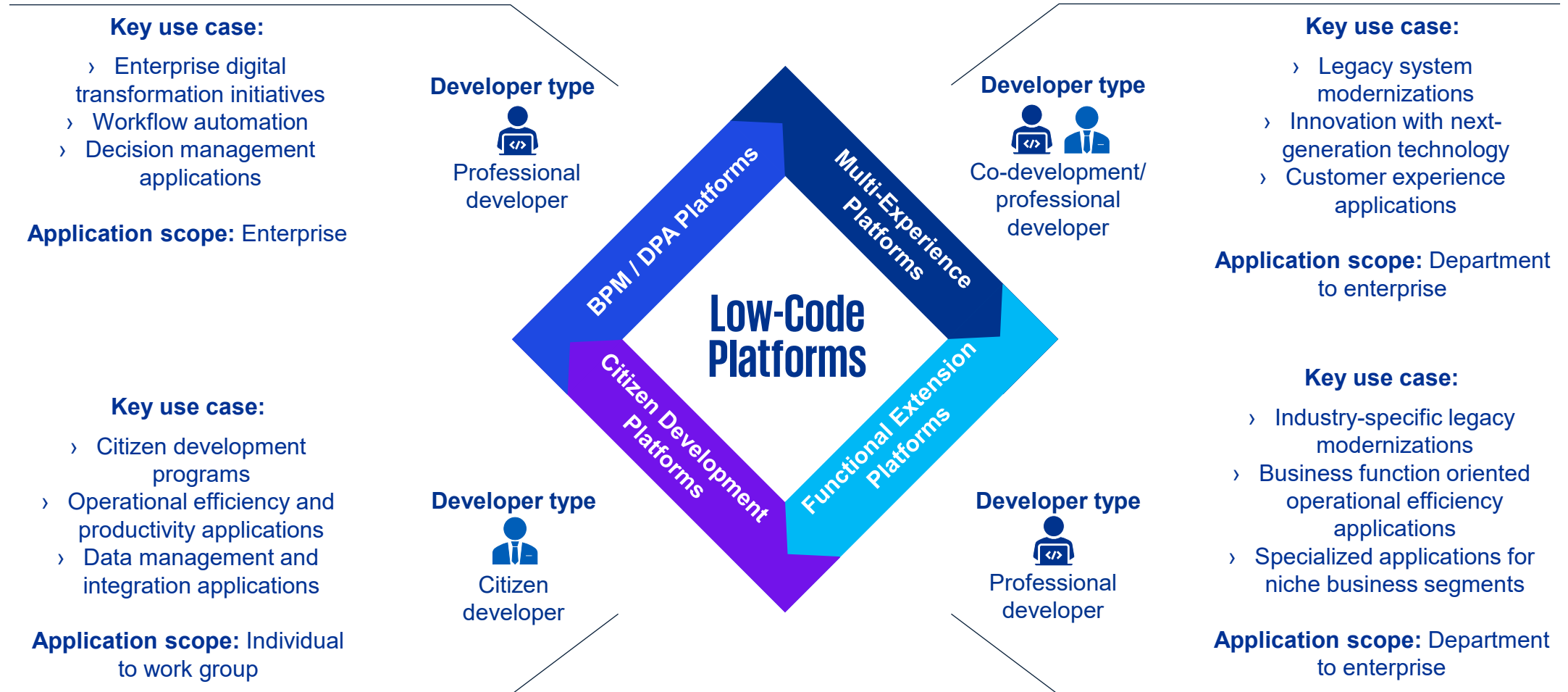
Citizen Development Platforms

No-Code platforms enable business users to quickly deliver app-based solutions for simple business use cases using an interface that doesn't require coding skills.

Functional Extension Platforms

Functional extension Low-Code platforms are primarily used for developing and accelerating solutions to support business/industry-specific needs and use cases.

BPM / DPA Platforms

Multi-Experience Platforms

Citizen Development Platforms

Functional Extension Platforms

Low-Code Platforms

Low-Code Landscape

Capabilities

Key use case:

› Enterprise digital transformation initiatives
› Workflow automation
› Decision management applications

Application scope: Enterprise

Developer type

Professional developer

Developer type

Co-development/ professional developer

Key use case:

› Legacy system modernizations
› Innovation with next-generation technology
› Customer experience applications

Application scope: Department to enterprise

Key use case:

› Citizen development programs
› Operational efficiency and productivity applications
› Data management and integration applications

Application scope: Individual to work group

Developer type

Citizen developer

Developer type

Professional developer

Key use case:

› Industry-specific legacy modernizations
› Business function oriented operational efficiency applications
› Specialized applications for niche business segments

Application scope: Department to enterprise

BPM / DPA Platforms

Multi-Experience Platforms

Citizen Development Platforms

Functional Extension Platforms

Low-Code Platforms

Exercise

Real Life Scenario

Success Criteria

ACME Co. is struggling with its workforce time report.
Employees do not report on time (every week) their time spent on each work item as well their expenses (hotel, air and train ticket, meals and others).

ACME is asking SOFTWARE INC. to design and build an app to collect time report for the employee via web and mobile leveraging its low code platform.

Split in 5 groups (7 people each) and design on powerpoint or better on DRAW.IO a **wireframe of the UX of the app** as well show the link between the different wireframes, in particular:
- **Home page for the employee**
- **Time report page**
- **Expense report page**

Show the result in a brief presentation of 5 minutes each
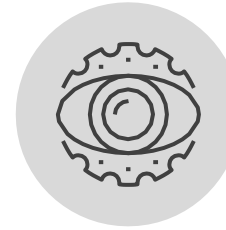
Navigation beetween pages
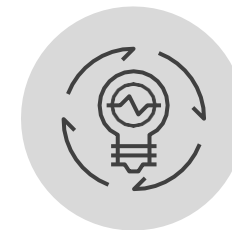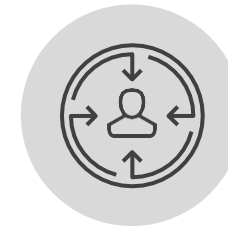
Simple UI
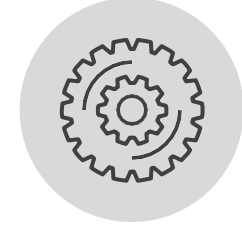
Business Rules to check data

Deploy to any device

Time and Expense management

Built-in Security by default

KPMG

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