

Supercharge Digital Transformation by Converging Cloud migration and Application modernization



Atos

Executive Summary

In today's dynamic business environment, digital transformation stands as a critical mandate for organizations striving to sustain competitiveness and relevance. Implementing this transformation demands the right approach, platforms, and data insights. Leveraging cloud services and intelligent apps is the key path forward.

This paper delves into the essentiality of integrating cloud migration and low-code development to propel successful digital transformation initiatives. Cloud migration ensures scalability and flexibility, while low-code development fosters implementation efficiency, innovation, enhanced customer experiences, and valuable outcomes.

Challenges faced in the digital transformation journey are multifaceted, particularly when organizations solely rely on cloud migration. Legacy system limitations, cost considerations, and integration challenges impede the full utilization of cloud capabilities. **To overcome these hurdles, the paper emphasizes the necessity of combining application modernization with cloudification.**

The fusion of cloudification with application modernization, especially through low-code technologies like Mendix, offers an efficient pathway to mitigate legacy system constraints. Mendix and Atos combine forces to usher enterprises along their digital journey, offering swift modernization and cloud transformation. This partnership is tailored for innovation across applications and cloud layers, ensuring strategic alignment, swift development, and realization of transformation goals.

The key advantages being -

- Modernized applications built using low-code platforms inherently align with cloud-native capabilities, optimizing resource utilization, fortifying security measures, and enhancing agility.
- Tackling integration challenges and technical debt, thereby paving the way for a prosperous digital transformation journey.
- Reduced infrastructure costs, increased scalability, and streamlined development.
- Leveraging modern low-code tools drives speed, brings in new features, and accelerates development and optimizes costs.

The paper navigates through the stages of the cloudification-application modernization journey, stressing the significance of assessing technology assets, defining objectives, establishing a Cloud Center of Excellence (CCoE), and executing a structured modernization plan. The iterative nature of this journey, characterized by continuous delivery and seamless integration, ensures the long-term success of cloud adoption and application modernization. This unified strategy remains flexible to align with organizational objectives, heralding a new era of effective digital transformation.



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Introduction

In today's rapidly evolving business landscape, organizations must remain competitive and relevant. Digital transformation is therefore an absolute business imperative.

Two formidable forces have significantly impacted the way businesses adapt to this digital era. One is the extensive migration to cloud infrastructure, and the other is the modernization of the application landscape.

This paper explores the strategic fusion of transformative trends, illustrating how the synergy between cloud migration and low-code application modernization propels successful digital transformation initiatives.

The paper adopts a journey-centric approach, exploring the various phases of the cloudification-modernization process, elaborating on each step's significance, and highlighting the economies of scale generated when these elements converge.

Challenges to the Cloudification journey

Digital transformation involves adopting modern technology to enhance an organization's scalability, agility, efficiency, and competitiveness by building in new processes, culture, and customer centricity.

Cloudification, or cloud migration, represents the migration of existing IT infrastructure and services to cloud platforms, offering advantages such as scalability, flexibility to manage business workloads based on demand. This allows faster decision making and improves cost efficiency, thereby providing the option to invest in new opportunities.

However, simply lifting and shifting workloads to the cloud will not deliver the desired benefits of digital transformation. Organizations face significant challenges when they solely rely on cloud migration as a strategic approach.

These obstacles include:

- **Legacy System Limitations**

A direct migration of legacy systems to the cloud without utilizing the full capabilities of the cloud and advanced technologies like AI and IoT can result in missed opportunities for innovation and optimization.

- **Cost Considerations**

While cloud migration offers cost savings in the long run, organizations may initially encounter unexpected costs due to inefficient resource utilization or incorrect cloud service selection. Without alignment to cloud-native architectures, organizations will not be able to maximize the cost-saving benefits provided by cloud infrastructure.

- **Limited Agility**

Legacy applications are typically rigid and less responsive to the dynamic needs of modern businesses. Cloud migration alone does not inherently enhance the agility of applications, and this may hinder an organization's capacity to quickly respond to market changes.

- **Security Risks**

Failure to upgrade rehosted applications to modern encryption standards or address security gaps can result in inadequate security protocols. This deficiency can pose challenges in effectively safeguarding data even within a cloud-native environment.

- **Integration Challenges**

Legacy applications struggle to integrate seamlessly with other cloud-native services and applications. This hampers data flow and results in fragmented business processes.

- **Performance Optimization**

Legacy applications may not fully harness cloud infrastructure's performance capabilities. There must be a mechanism to enhance application speed and capacity as they migrate.

- **Technical Debt Accumulation**

Systems when migrated in the incumbent state carry forward their accrued technical debt and can result in higher consumption of computational resources. Over time, this hinders development speed and increase maintenance costs.



Overcoming the challenges with Application modernization

Efficient cloud migration is a significant step towards digitalization. It is imperative for organizations to acknowledge that for a comprehensive transformation, an application modernization strategy needs to be integrated to the cloud adoption initiative.

Integrating application modernization with cloudification can position organizations for success by tackling limitations of legacy systems, boost agility, fortify security, and embrace innovation.

However, application modernization doesn't offer a one-size-fits-all solution. Each organization and business line possesses unique work methodologies and need bespoke solutions. While the standard classification for modernization of applications was introduced by Gartner¹ as the 5Rs (and further expanded to 7Rs by AWS²), these classifications essentially translate into three overarching areas:

Confirming compatibility

As-is movement involves migrating the application to the cloud after confirming its compatibility and ability to leverage the features offered by the new cloud environment.

Making partial changes

(without impacting source code, architecture, or hardware) thereby bringing in modern features without spending too much time and effort.

Creating new applications

to exploit made-for-cloud native capabilities. While the most future-compliant approach, this can also be the most time-consuming, risk-driven approach.

To modernize a process or a set of applications (Replace/Rebuild of the 5 Rs), every application/process owner needs to answer these key questions:

1. Will the modernization be able to address the existing business challenges?
2. Will the modernization be available within a reasonable time-frame?
3. Will the modernization be equipped to address future challenges?

Numerous methodologies and technologies are available for implementing application modernization, with one of the most effective and expeditious approaches leveraging low-code application development. Utilizing low-code can significantly impact the ability to confidently answer these key questions.

Low-code has the potential to stand out as a premier choice for application building addressing existing gaps with automation, accelerating application development, and seamlessly integrating with native cloud services and cutting-edge technologies.

The credibility of these assertions regarding low-code solely relies on the capability of the tools and technology to deliver on their promises. Mendix, one of the [leading low-code platforms](#)³ illustrates such capability. It elevates application building efficiency a step further by providing a comprehensive environment for rapid application development and deployment aligned with the cloud.

Featuring visual, user-friendly development interfaces, vast libraries of pre-built components, integration connectors, and automation features, Mendix empowers organizations to address the ever-changing needs of their businesses with remarkable agility and accuracy.

This not only expedites the modernization process but also optimizes resource allocation, establishing itself as the choice for businesses seeking for cost-effective, future-proof, and user-centric application modernization initiative.

Applications modernized using leading low-code platforms inherently adopt a cloud-native architecture. Consequently, they can overcome traditional legacy system limitations by fully leveraging the potential of the cloud, optimizing resource utilization, and facilitating the selection of suitable cloud services. Furthermore, the flexibility of low-code empowers legacy applications, enhancing agility alongside cloud migration to swiftly respond to market changes.

Security risks are mitigated through modern encryption implementation, a pivotal feature of low-code platforms that ensures robust security even in cloud-native settings. The low-code integration capabilities tackle the challenge of seamlessly integrating legacy applications with other cloud-native services as well as cutting edge technologies like IoT and AI. Moreover, low-code platforms built on a regulated framework inherently optimize performance and eliminate technical debt, fostering efficient use of computational resources. This prevents obstacles to both development speed and maintenance costs.

Therefore, the introduction of cloudification and application modernization through technologies such as low-code emerges as a concrete solution to effectively overcome the earlier mentioned challenges, ultimately paving the path for a prosperous digital transformation.

Let us delve deeper and examine the stages of a cloudification-application modernization journey to understand the optimal approach for merging these initiatives.

Deconstructing the transformation journey

Embarking on the cloudification and application modernization journey involves a series of steps and processes. The goal is to transform the digital makeup of an organization's operations and services through cloud infrastructure setup. It also includes bringing in new-age platforms apt for modernization.

Assessing technology assets is pivotal for informed decision-making in organizations' IT environments. The current state of assets (hardware, software, and data) must undergo a thorough review. Considering the complexity of such an exercise, specialized tools can accelerate this process. Any gaps in alignment with business goals need to be identified and documented.

If there is a **case for cloudification**, clearly defining objectives linked to current challenges, such as scalability or security, aids in emphasizing primary drivers for migration. Conducting a comprehensive cost-benefit analysis aids decision-makers in understanding financial impacts and potential savings in the cloud.

Once a viable need is established, one can plan to **mobilize the cloud infrastructure**, to ensure a robust and secure cloud infrastructure set up. Establishing a Cloud Center of Excellence (CCoE) comprising project managers, cloud architects, security professionals, and business stakeholders with clearly defined roles ensures collaboration and accountability.

Also during initial assessment, many organizations find themselves with a multitude of applications requiring modernization. This creates a need to assess their **fitment for modernization** and prioritize these applications effectively. This includes factors like their existing state, potential impact to business, consolidation with other applications, costs and benefits analysis, and so on. This represents a crucial step in the journey as it forms the blueprint of the execution phase.

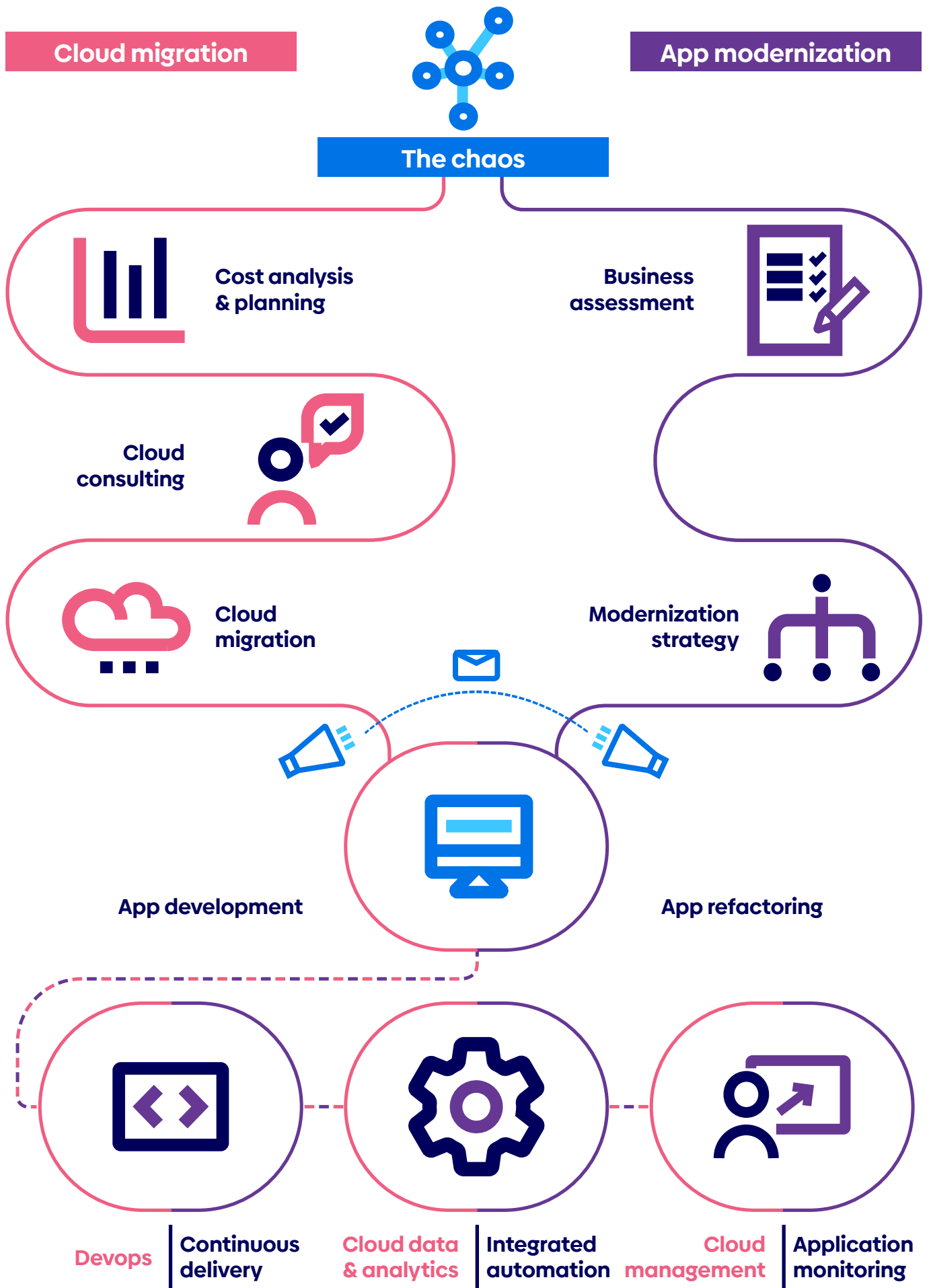
Once the fitment exercise is completed and applications are shortlisted, a modernization plan can be chalked out, the **Application refactoring/rebuilding** is put into action. While the refactoring/rebuilding is aligned to the overall solution design and technology used, the approach for application modernization involves employing a systematic and structured methodology like an assembly line in a factory.

Continuous delivery continues to be the mantra in the do-phase of the journey, to ensure rapid and seamless updates to meet the dynamics of demands. Integration with the overall client ecosystem is another key facet, enabling harmonization of client systems with their partners and customers seamlessly.

As we move forward, applications transition to the operational phase in their lifecycle. Effective **long-term management** of the cloud infrastructure and application landscape are crucial to maintain the advantages of cloud adoption and application modernization, fulfilling the promised outcomes.

The initial assessment for cloud adoption and application modernization happens simultaneously. It is a part of early cloud transition stages because a complete "as-is" migration is uncommon. Often, new features are integrated during rebuilding, impacting cloud architecture. Existing functionalities being migrated or modernized can also affect the cloud setup due to different technical requirements. In practice, the cloudification/application modernization journey tends to be a flexible set of operations adaptable to organizational goals. Further exploration will show how this combined approach leads to successful digital transformation.

In the following sections, each stage of the cloud migration and application modernization journey has been illustrated in a detailed infographic. This visual aid aims to enhance understanding, by providing a clearer perspective on the various stages of this transformation process.



Assessment of technology assets

Assessing technology assets is a critical process for organizations aiming to make informed decisions about their IT environment. This assessment involves a systematic evaluation of hardware, software, infrastructure, and data to gain insights into their current state, performance, and alignment with business objectives. The assessment process typically includes several key steps, the use of specialized tools, and involvement from various roles within the organization.

The assessment process begins by defining clear objectives and scope. This involves identifying the goals of the assessment, such as optimizing IT costs, improving performance, enhancing security, or preparing for a technology migration. Determining the scope is equally important, as it outlines which technology assets will be assessed. For example, an organization may choose to assess its entire IT infrastructure, specific application portfolios, or data storage systems.

Once objectives and scope are established, the next step is data collection. Various tools and methodologies can speed up this process. Automated discovery tools, network scanners, and configuration management databases (CMDBs) are commonly used to gather information about hardware and software assets.

Additionally, surveys, interviews, and documentation reviews can provide valuable insights into the human and procedural aspects of technology asset management. These tools and methods create an inventory of assets, including servers, storage devices, network components, licenses, and dependencies, forming the foundation for a comprehensive assessment. Many organizations do not have accurate data to rely on and can make use of tools like Atos Cloudamize⁴ (tool for Cloud TCO Analysis and Migration Assessment focused on workload utilization and license optimization) to accelerate the assessment of assets and project an optimized Cloud Total cost of ownership.

The assessment of technology assets also requires the collaboration of several roles within the organization.

- IT administrators and technical experts play a vital role in data collection, providing insights into the current state of hardware and software components.
- Business analysts and stakeholders contribute by aligning the assessment with strategic objectives and identifying areas where technology can drive business value.
- Data analysts and cybersecurity professionals may be involved in assessing data quality, security vulnerabilities, and compliance with regulatory standards.
- Project managers are crucial for coordinating the assessment efforts and ensuring that timelines and resource allocation are on track.

By involving a cross-functional team, organizations can gain a holistic view of their technology assets, and applications and identify areas for improvement.

Creating the case for cloudification and modernization

Creating a compelling business case for cloud migration and modernization is a decisive step for organizations looking to harness the benefits of cloud computing while modernizing their IT infrastructure and application landscape. A Cloud business case serves as a strategic roadmap that outlines the rationale, objectives, costs, and expected benefits of the migration and modernization initiatives.

First, the business case should clearly articulate the reasons behind the cloud migration and modernization efforts. Organizations often embark on these initiatives to achieve various goals, such as cost reduction, scalability, agility, innovation enablement and enhanced security. These objectives should be clearly defined and linked to specific pain points or challenges the organization is facing in its current IT environment. For instance, an organization struggling with on-premises infrastructure constraints will emphasize scalability and cost savings as primary drivers, while a company concerned about data security will focus on enhanced security measures in the cloud.

In addition to stating the objectives, the business case brings in a detailed assessment of the current landscape from the previous step. The business case should also highlight any potential risks or vulnerabilities in the current environment, such as outdated software, security vulnerabilities, or high operational costs. By clearly presenting the current situation, decision-makers can better understand the urgency and necessity of migration and modernization efforts.

The business case must outline the costs and investment required for the cloud migration and modernization initiatives. This includes a breakdown of both upfront costs (e.g., migration tools, consulting services, and hardware upgrades) and ongoing operational costs (e.g., cloud service subscriptions, maintenance, and training). It is essential to provide a comprehensive cost-benefit analysis that estimates the return on investment (ROI) over a specified timeframe. Decision-makers should have a clear understanding of how the migration and modernization efforts will impact the organization's budget and financial sustainability. An important consideration is that a faster, more agile application delivery capability means that additional revenue and cost savings are realized much sooner, and opportunities are capitalized on in time to be an early-mover.



Mobilizing cloud infrastructure

The mobilization of a cloud migration and modernization program is the next logical phase in the journey towards transforming an organization's IT infrastructure and operations. This phase involves setting the stage for a successful program by assembling the right team, defining clear objectives, and establishing the necessary processes and governance structures.

One of the foremost priorities during mobilization is the establishment of a Cloud Center of Excellence (CCoE), a dedicated team with the requisite expertise and leadership to drive the program's success. This multifaceted team typically comprises project managers, cloud architects, IT administrators, security experts, and business stakeholders. Their roles and responsibilities should be meticulously defined to facilitate seamless collaboration and robust accountability throughout the program. Moreover, designating a program sponsor or executive champion who can offer unwavering support, allocate essential resources, and provide strategic direction to the CCoE, ensure its effectiveness in overseeing the program.

Defining clear objectives is another critical aspect of mobilization. The program's objectives should align closely with the organization's overall business goals. Common objectives for cloud migration and modernization programs include improving scalability, enhancing security, reducing costs, and increasing agility. Key performance indicators (KPIs) and success criteria should be established to measure progress and outcomes.

KPIs include:

- **Cost Savings:**
 - Cost Reduction Percentage
 - Return on Investment (ROI)
- **Performance and Efficiency:**
 - Application Performance Metrics
 - Resource Utilization
- **Availability and Reliability:**
 - Uptime and Downtime
 - Recovery Time Objective (RTO) and Recovery Point Objective (RPO)
- **Security and Compliance:**
 - Security Incidents
 - Compliance Adherence
- **User Experience:**
 - User Satisfaction
 - User Adoption Rate

Establishing processes and governance structures is fundamental for ensuring that the program operates efficiently and effectively. This includes defining the methodology and approach for cloud migration, selecting appropriate cloud service providers, and setting up governance boards or committees to oversee decision-making and risk management. Additionally, a communication plan should be developed to keep stakeholders informed and engaged throughout the program. Effective change management practices should also be put in place to help employees adapt to the changes brought about by cloud migration and modernization.

Define modernization strategy

Once the strategic rationale for cloudification and application modernization is firmly established, and the roadmap to mobilize cloud infrastructure is laid out, it becomes imperative to assess the fitment for applications considered for modernization.

Whether it involves retiring legacy applications that are no longer aligned to, or able to support current objectives, automating business operations with modern capabilities, or bringing in innovation, the proposal to modernize should be justifiable.

Using a fitment matrix is one of the best ways to evaluate the application needs for modernization. The fitment matrix should consider various parameters that can be evaluated and weighed for modernization perspectives. Based on the organization objectives, the matrix should consider costs, return on investment, feasibility within client ecosystem, and other relatable factors. This pragmatic approach furnishes a quantifiable basis for shortlisting applications for modernization and sets the groundwork for future endeavours. Some pivotal questions that should be addressed are:

What is the cost of the current system? Evaluate the existing system for factors like performance, security, scalability, and the cost of maintaining and supporting in its current state.

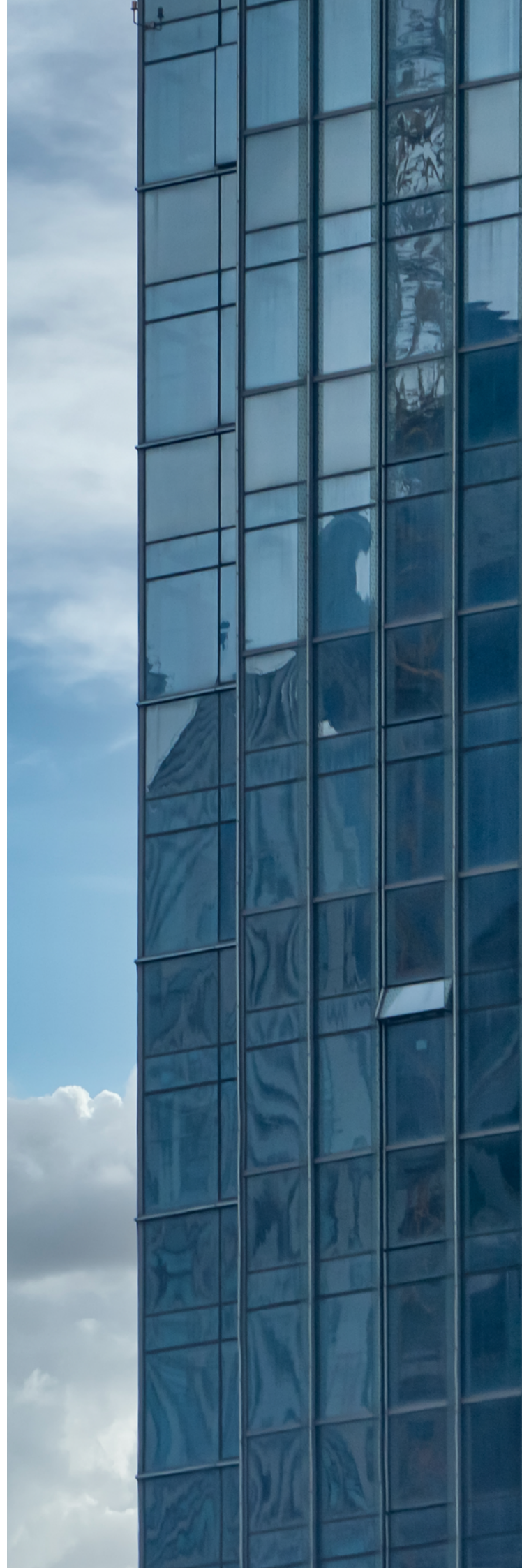
Is the cost of modernization justified? Assess the potential return on investment (ROI) for modernization. Compare the costs of modernization against the benefits it will bring in terms of efficiency, revenue, and customer satisfaction. Using ROI calculators that can consider multiple input factors, it is easier to derive a quantitative estimate.

Is there a genuine need for modernization? Analyse present-day market demands, industry trends, and competitive offerings to ascertain the necessity for this transformation.

What are the compliance requirements related to the process/operation? Identify the relevant industry, security regulations and data privacy laws that need to be complied with when the modernization takes place, and if they are feasible.

Will the modernized application meet future requirements? Consider whether the modernized application can scale to accommodate future growth and handle increased loads without compromising performance.

In summary, there must be a well-defined and justified need for application modernization, with quantifiable answers to the questions. This can serve as reference points for validation, correction, or as guiding principles for future modernization waves.



Application refactoring/rebuilding

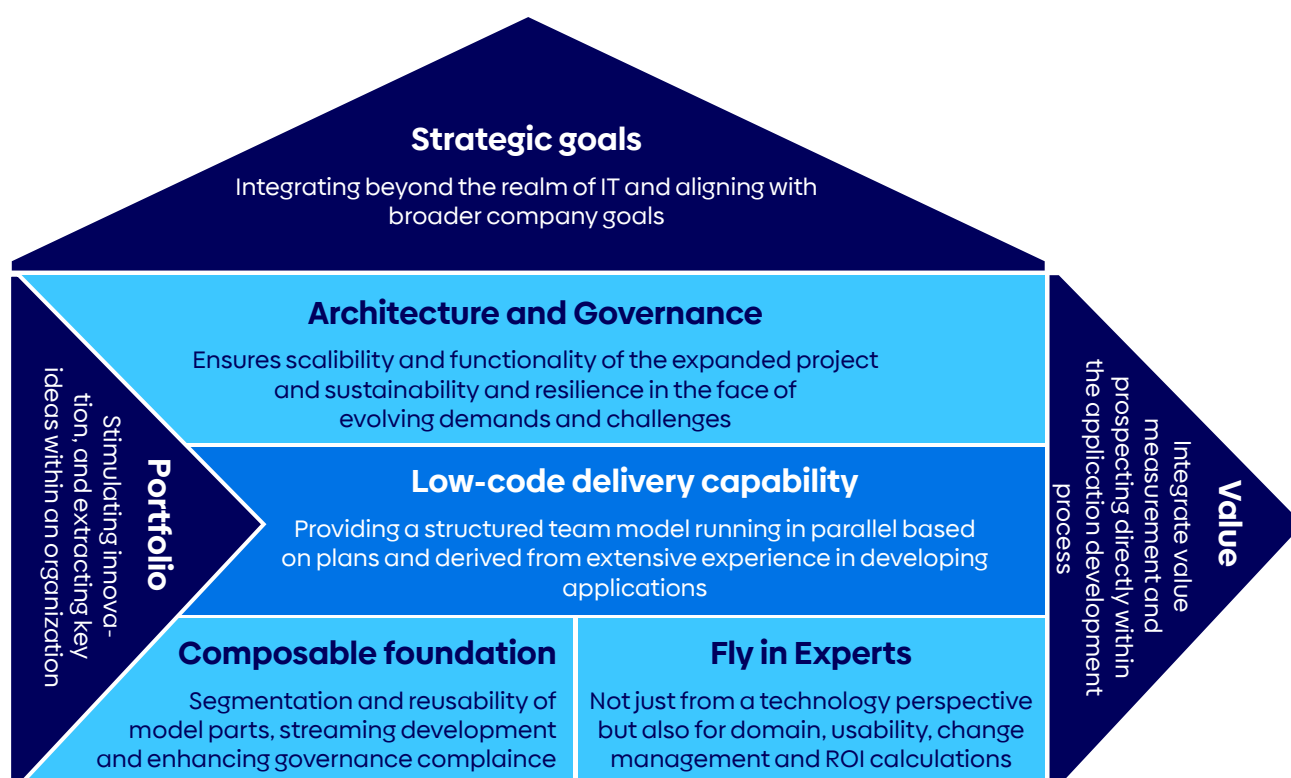
Once the fitment exercise identifies the list of applications to be considered for refactoring or rebuilding, the right set of technology or technologies need to be determined to implement the same.

While there are many technologies that can be used, low-code platforms offer a compelling option for facilitating modernization due to their rapid pace of implementation, ease of use, collaborative approach to application building, adaptability to changes, and seamless integration capabilities into the existing landscape.

When we look at application refactoring/rebuilding for multiple applications in an enterprise, a structured framework is necessary to handle this scope, and maintain a fast pace of delivery but still being able to comply to organizational standards and manage the overall objectives.

Leading low-code platforms incorporate an agile and structured delivery framework as a core component of their product offerings. This integrated platform facilitates seamless information sharing and collaboration between IT and business units, further enhanced by its capacity for integration with existing client development operations.

Among these platforms, Mendix stands out for its effectiveness. The Mendix low-code platform goes beyond the conventional by introducing the Mendix App Factory framework - an end-to-end demand-to-operations management tool. This framework empowers adopters to establish a comprehensive application development methodology, expediting time to value and elevating the overall quality of delivery.



The Mendix App Factory Framework

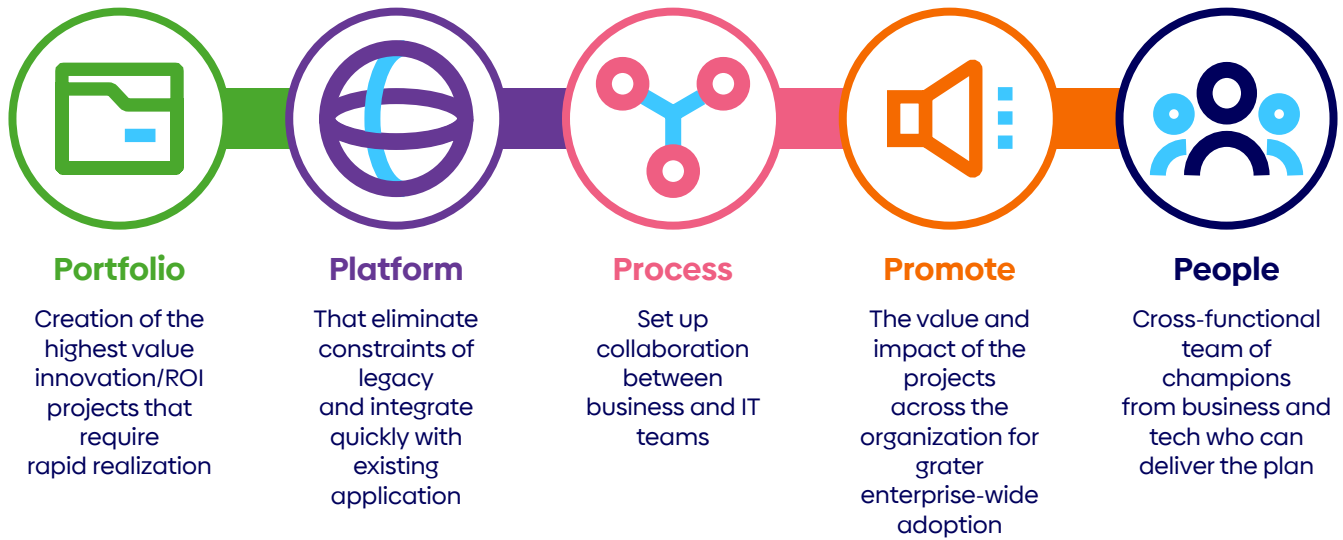
The Mendix App factory brings a framework for predictable and manageable production of Mendix Applications aligned to the organization's objectives. It introduces guidelines and tools to oversee the entire portfolio-to-value journey, with emphasis on scalability, sustainability, and reuse through architecture and governance. It also helps create structured parallel teams for delivery capabilities, incorporating specialists on demand. Here is an overarching view of the Mendix App Factory Framework.

The Atos Apps factory suite⁵ aligns to the Mendix App factory framework, facilitating a BizDevOps approach. The suite helps IT and business users to rapidly ideate, create and deploy apps at scale while keeping business needs, architecture, and deployment organized.

Further considerations

Focus areas: The 5P approach⁶ is a guideline to identify focus areas.

Mendix 5P focus area



Planned Growth: Start, Structure and Scale

Your disruptive change requires going through three major stages: Start, Structure, and Scale. Each stage has its own unique set of objectives.



Start

Celebrate First Success

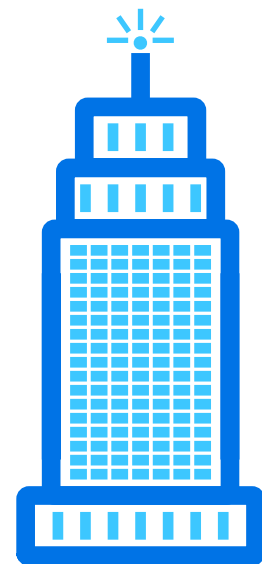
Establish first core team and first value delivering solutions



Structure

Predictability & Continuity

Formalized methodologies, organizational & architecture growth



Scale

Productivity & Efficiency

Scalable Readiness

3S approach: Begin with a small project to validate digitalization's business value. Develop a strategy based on initial success for replication, leading to scaling into a digital ecosystem—an App factory, enhancing enterprise efficiency.

Versatility in execution teams: Create a fusion team with cross-functional expertise like Scrum masters, UI/UX designers, testing, and deployment/infrastructure specialists for versatile project support.

Standardization and reuse: Implement standardized procedures for development, testing, and deployment to ensure consistency during application modernization across multiple projects. Leverage low-code platform components' marketplace (a repository for reusable modules) accelerating development while maintaining application uniformity.

Governance and Compliance: Defining best practices to maintain quality, security, and compliance with industry, standardizing deviations if any, and establishing a change management process to track modifications and updates.

CI/CD and Long-term management

Continuous Integration and Deployment:

The use of continuous integration and continuous deployment (CI/CD) practices can streamline the entire delivery lifecycle as well as allow for quick and stable upgrades and releases.

Low-code platforms are equipped with branching/merging features, facilitating parallel development and continuous integration. Incorporating version control, ensures that changes are tracked, merged without conflicts, and previous versions can be easily restored if necessary.

Automated testing features within the platform ensures that changes do not introduce errors or vulnerabilities, thus enabling a smooth transition into production. Further, active user involvement through collaboration features, makes it easier together user feedback and iterate on applications rapidly.

It also provides structured, clicks driven visual deployment process across environments, automating the inherent steps, helping maintain a continuous flow of updates while ensuring stability and quality.

Low-code platforms also allow plugging in 3rd party tools such as automated code reviews or automated security reviews thus not restricting its users to a sole or proprietary driven DevOps.

Training and Change Management:

Training and change management strategies can be put in place to educate stakeholders, users and teams on the platform functionalities and potentially new ways of working and collaborating, thus leading to a faster and favourable acceptance of the platform.

Equally important is guiding individuals through the transition, showcasing the ease of use/benefits so that there is a least resistance to change and a smooth acceptance. The teams tagged during the initial wave of modernized application/s are considered as the de facto promoters of the new platform adaption, and hence, the overall experience towards change must be positive.

Monitoring and Maintenance:

Once deployed, monitoring of the platform and applications is essential to ensure that the health, performance, and reliability of the set-up is not compromised. Low-code platforms provide their own interfaces or components to monitor and analyse the platform and deployed applications. Also, modernization initiatives invariably involve multiple applications, hence the analysis of product logs, performance and usage statistics is required over intervals of time.

Beyond the application-level incidents and problems that may be bound to surface, a maintenance plan should be established to handle updates, patches, and improvements along with audits for security and compliance. Continuous optimizing of the application for performance, scalability, and usability by revisiting and refining application design, and elements is a good practice to be followed.

Scalability and Growth Planning:

As the application matures, it may encounter increased usage and more complex data processing requirements. It is crucial that the application maintain its performance levels even as user loads and data volumes grow. Scalability measures, such as load balancing, caching, and distributed computing, should be implemented to support this. Irrespective of the workload, planning for scalability and accommodating business growth should remain a priority ensuring that the application remains an asset to the organization.

Scalability should not compromise user experience. Regardless of how many users are accessing the application, it should continue to provide a seamless and responsive experience. Ensuring that the user interface remains responsive, even during peak usage, is a key consideration. As data volumes grow, effective data management becomes essential. This includes practices like data archiving, purging obsolete data, and implementing data compression techniques to keep the database size in check.

Application architects should consider how the business might evolve in the future. This involves considering new features, functionality, or integrations required as the business grows and ensuring that the application can adapt to these changes without significant disruptions.

All these involve technical considerations, cost management, user experience, and a forward-looking approach that enables the application to evolve alongside the business. This proactive strategy helps the organization stay competitive, agile, and responsive to changing market conditions.



Additional considerations

Feedback and Iteration:

Feedback and iteration are integral to the agile nature of low-code development, allowing teams to adapt and refine applications continuously. Leading low-code platforms offer seamless components to record feedback directly from the application. This continuous feedback loop helps ensure that the application remains aligned with evolving business needs.

Regular iterative reviews with the operations and stakeholder teams to assess progress, discuss challenges, and incorporate suggestions for enhancements can help create solutions that are closely aligned to business needs, improving user satisfaction and the overall effectiveness of the applications.

Nurturing talent:

As more applications are onboarded on the platform, it is vital to create a knowledge base within the organization. Through its online portal, the Mendix Academy⁷, it provides a comprehensive training program for different levels of expertise. Getting acquainted with the platform helps in bringing in relatively simpler or new changes that can be anticipated, designed, and implemented by the business teams.

Further avenues like the developer community and marketplace are rich resource fields to explore the possibilities of what can be achieved or has already been achieved that can be put to reuse for similar demands.

Benefits

The synergy between cloudification and low-code development in application modernization creates a powerful ecosystem that can help organizations stay competitive, agile, and innovative in today's dynamic business landscape.



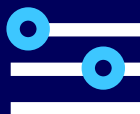
Rapid deployment and scaling

Cloud environments provide the infrastructure to quickly deploy and easily adapt to varying workload. Low-code development complements this by allowing for the swift creation of applications through visual interfaces, enabling faster time-to-market.



Real time insights

Unplanned maintenance costs can be effectively reduced to zero through the implementation of cloudification combined with application modernization. This powerful synergy relies on applications that can perform real-time data reporting, ushering in a new era of operational excellence. By leveraging cloud-based resources and modernized applications, organizations gain the ability to proactively monitor and manage their infrastructure, equipment, and systems in real time. This means that potential issues, faults, or performance deviations are immediately detected and reported, allowing for swift and targeted interventions.



Speed and efficiency

Low-code application development allows for faster application modernization, and when paired with cloud resources, this process becomes even more efficient. Development cycles are shorter, enabling organizations to respond swiftly to changing market conditions and customer demands.



Improved resource utilization

Cloud environments offer the ability to scale resources up or down as needed. Low-code development, with its efficiency in application creation, ensures optimal utilization of cloud resources, minimizing waste and maximizing efficiency.



Transformative features

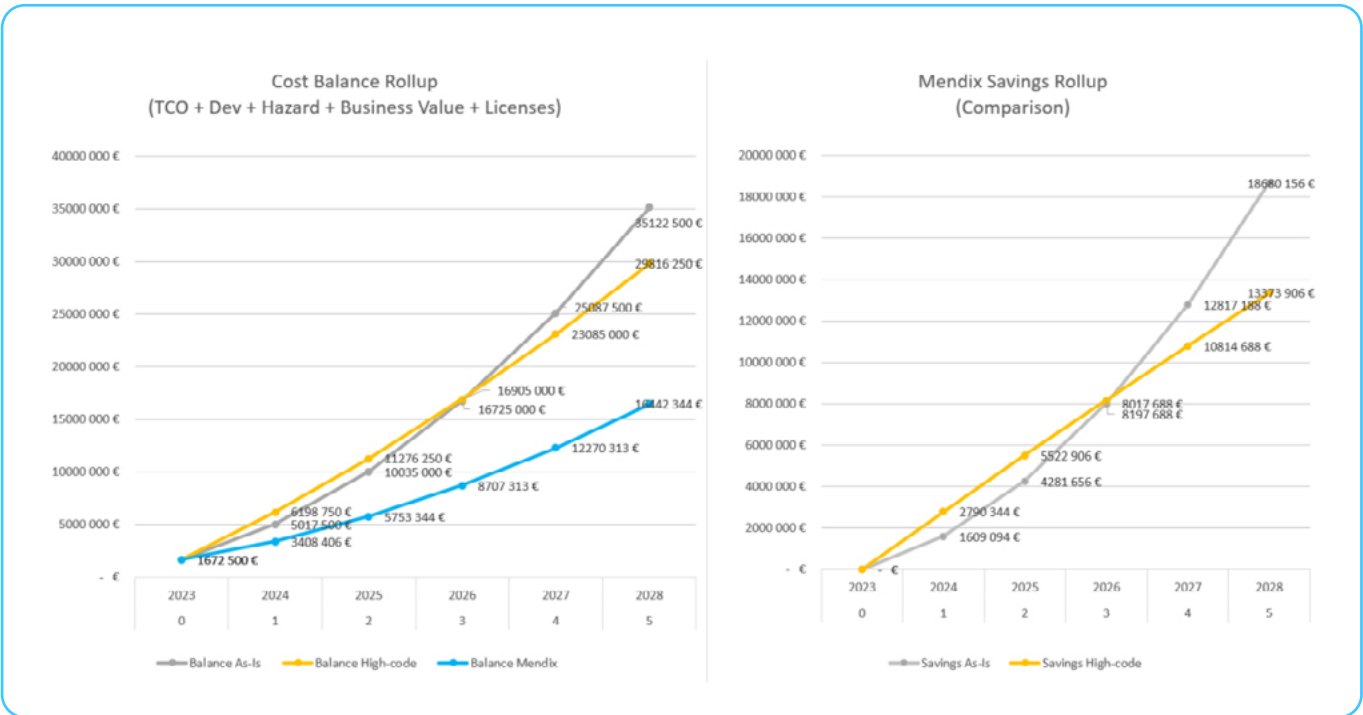
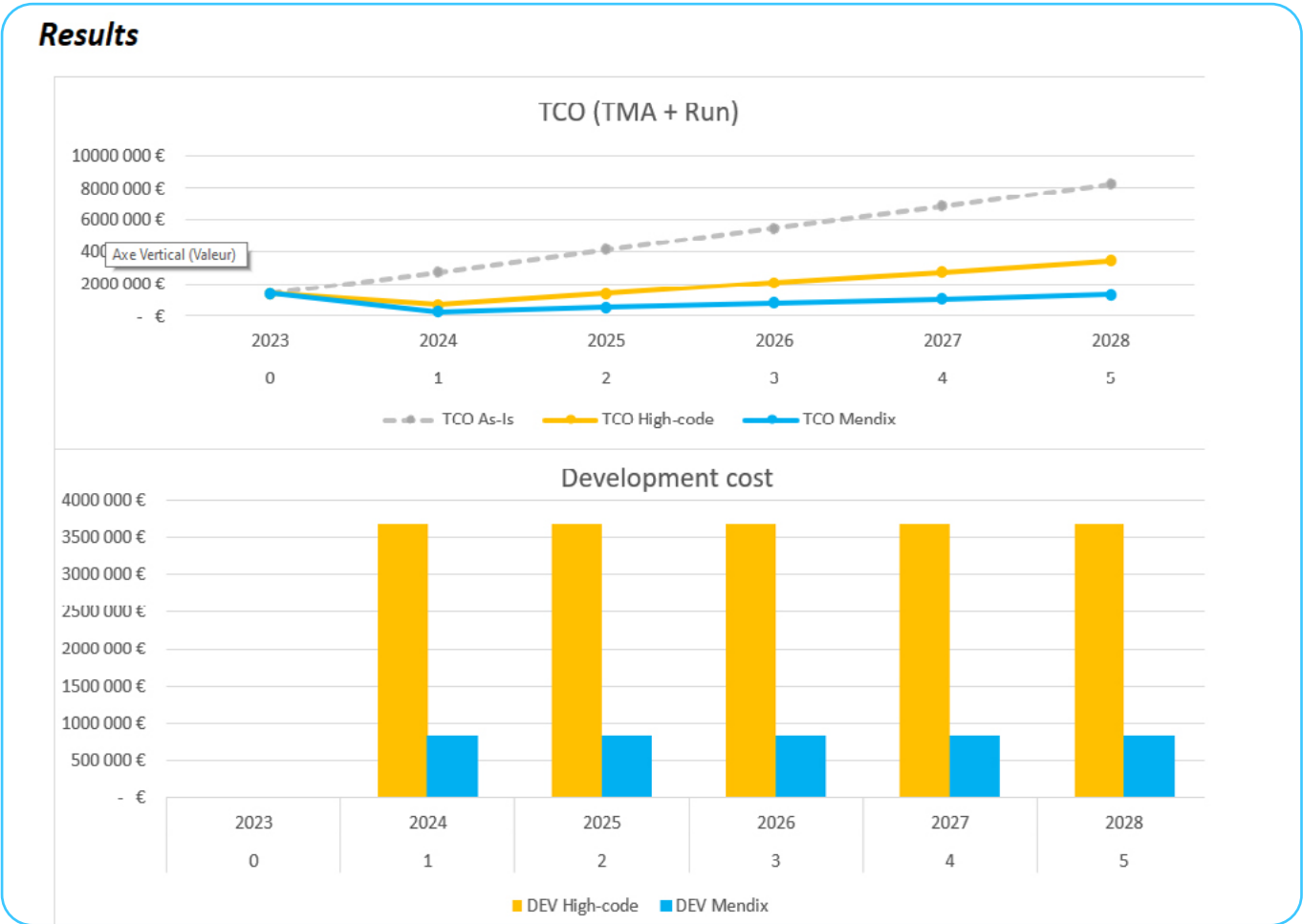
Market-leading low-code platforms can revolutionize the application landscape by introducing collaboration, intuitive multichannel user interfaces, mobility, seamless integration, and offline capabilities. These transformative features ensure that applications are readily accessible across all organizational levels, from back-office operations to field personnel, enhancing productivity, accessibility, and adaptability across the board.



Costs optimization

- Cloud services offer a pay-as-you-go model, reducing upfront infrastructure costs and allowing organizations to optimize their spending based on actual usage. Coupled with a Low-code user license-based model it helps budget the overall business operations.
- Further Low-code development inherently reduces development costs by minimizing the need for extensive manual coding. Ability to onboard/modify new equipment or project info – in 5X times of legacy.

Below is a sample guidance on the ROI calculations when comparing low-code implementation to high code development.





Why choose Atos?

Our Credentials

- **Global Services provider:**

By embedding a transversal set of capabilities (Cybersecurity, Digital Consulting, Decarbonization, Industry vertical expertise, IoT Automation and Cloud Services), assets and services across our Low-code engagements, we can deliver End-to-End Digital Transformation services, from inception to production.

- **Dedicated Competency centres:**

We have established specialized Low-Code competency centre and One cloud centre, focusing on providing expert guidance and implementation services for Cloudification and Application modernization.

- **Certified Experts worldwide:**

Our teams enabled at onsite, offshore, and nearshore centres comprise of Low-Code experts with an impressive 90 percent certified strength on the industry's top platforms.

- **Strategic alliances with Leading Products:**

Our primary focus revolves around leading products and nurturing strategic partnerships with renowned vendors fostering collaborative efforts for joint go-to-market solutions.

- **Custom Solutions Expertise:**

Atos is actively involved in crafting functional solutions, such as energy monitoring, service management, and shipment exceptions, as well as technical utilities like the Product Fitment tool, PDF configuration, and APIs.

- **Recognized as leader:**

Independent external assessors like EVEREST Group have recognized our low-code capabilities and ranked Atos in Leader category⁸, in their 2023 Low-code Application Development Services, PEAK Matrix.

Our Value Proposition

- Modernize Legacy Applications to new generation AI enabled Digital Applications
- Build applications ground up on Low-code modern application development platform
- Enhanced Customer experience through intuitive and multi-channel implementation
- Deliver intelligently orchestrated workflows

Why choose Mendix?

Successful enterprises Built with Mendix

- **Premier Choice:**
Recognized as a leader in Gartner's Low-Code Magic Quadrant. Be at the forefront of innovation with the ability to execute.
- **Enterprise Grade:**
Globally trusted by a broad spectrum of enterprises, showcasing the robust, scalable capabilities designed for the most demanding environments.
- **Expansive Developer Community:**
Home to over 250,000 developers, the ecosystem that thrives on collaboration and innovation, setting the standard for low-code development.
- **Siemens Owned:**
As part of the Siemens family, Mendix stands on a foundation of stability for long-term customer commitment.
- **Unmatched Security Credentials:**
Proven by comprehensive certifications, including ISO27001, HIPAA, ISAE3402 II, and PCI-DSS, ensuring top-tier data protection and compliance used in the most demanding industries. (would make sure we have some government/banking/defense/health care logos in the design I propose).
- **Strategic Technology Alliances:**
Partnerships with tech leaders like SAP and AWS amplify our capabilities, and enable you to leverage past investments.

Achieve your goals by

- **Accelerate software development:**
Address the capacity and capability divide between business demand and IT supply from a single platform that simplifies the software delivery cycle.
- **Continuous Collaboration:**
Build the right software faster with a platform optimized for the collaboration of multi-disciplinary teams.
- **Partner in your success:**
Get support beyond technology, encompassing digital execution, customer success management, expert services, and a professional academy program to upskill your talent pool.
- **Scalable Architecture & Deployment Flexibility:**
Ensures your solutions are secure, reliable, and scalable, with our cloud native architecture. Enjoy seamless deployment across any cloud environment.
- **Leverage AI:**
Easily integrate advanced cognitive services and machine learning models into your applications, pushing the boundaries of what you can get in the hand or your users.
- **Make enterprise data actionable:**
Connect effortlessly to essential data sources and devices in your software landscape to enrich your applications and drive insight.
- **Intelligently Automate processes:**
Quickly digitize processes by embedding sophisticated workflows for both human and system interactions, streamlining processes and enhancing efficiency.
- **User Experience:**
Develop enterprise grade user experiences available on various touchpoints and modalities, meeting the evolving needs of customers and employees alike.

Want to know more?

Want to know more and/or experience our expertise by requesting a workshop?

Please contact our experts:



Amit Gadre

Principal Consultant
Low-code
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Pramir Gandhi

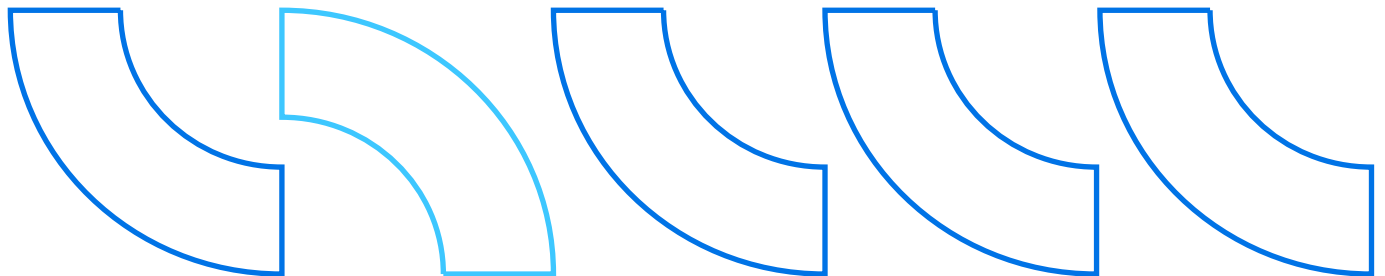
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About Atos

Atos Group is a global leader in digital transformation with c. 63,000 employees and annual revenue of c. €8 billion, operating in 61 countries under two brands – Atos for services and Eviden for products. European number one in cybersecurity, cloud and high performance computing, Atos Group is committed to a secure and decarbonized future and provides tailored AI-powered, end-to-end solutions for all industries. Atos Group is the brand under which Atos SE (Societas Europaea) operates. Atos SE is listed on Euronext Paris.

The [purpose of Atos Group](#) is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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Let's start a discussion together



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107314-JS+JD—Whitepaper-Supercharge Digital Transformation

The Atos logo is displayed in a large, bold, blue font. The letters 'A', 't', 'o', and 'S' are connected, with the 't' and 'o' having a unique, rounded shape.