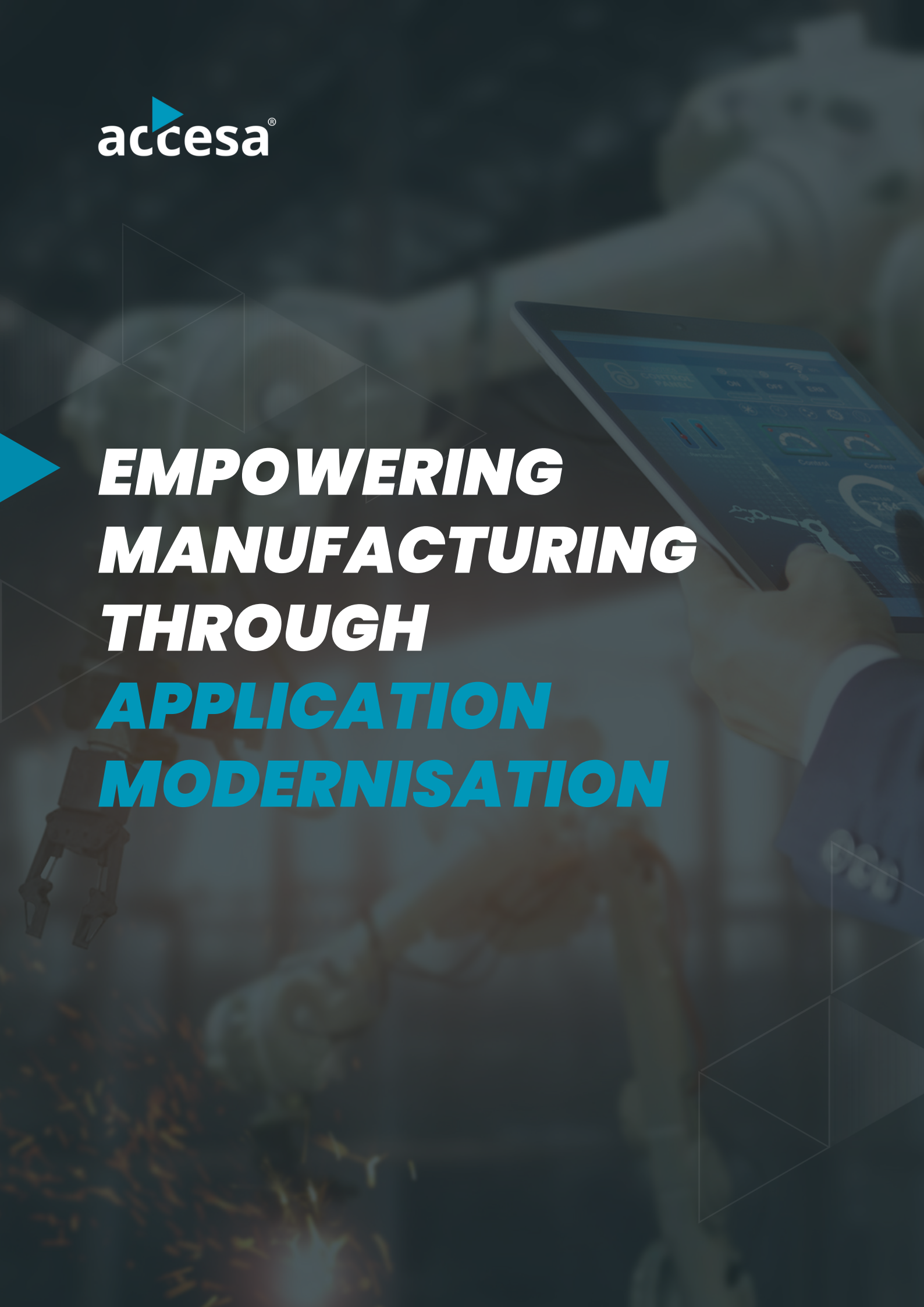
accesa®

EMPOWERING MANUFACTURING THROUGH APPLICATION MODERNISATION



The Context: Navigating Concerns and Leveraging Lessons Learned

The manufacturing industry has navigated many sudden and turbulent shifts in the past years — pandemics, wars, labour shortages and supply chain problems. With all these challenges, organisations are incentivised to innovate and modernise to keep up with the changing tide.

Despite the clear need for modernisation, Gartner estimates that **by 2025, companies will be spending approximately 40% of their IT budgets on simply maintaining technical debt.** To circumvent these costs, manufacturers need a strategic approach involving careful planning, stakeholder involvement, risk management and engagement with reliable technology partners.

With the right team, knowledge, and tools, modernisation projects present great potential, enabling organisations to **enhance operational efficiency and drive innovation and growth.** However, such projects often involve pressing managerial concerns on navigating the complex journey of updating legacy systems, ensuring they remain relevant and practical in today's fast-paced, technology-driven market.

This whitepaper aims to provide a comprehensive guide for managers in the manufacturing sector embarking on application modernisation projects.

We will demystify the process, address common concerns, offer actionable insights, and explore the various technological, business, operational, and market challenges associated with modernisation efforts.

Furthermore, we will draw on our company's extensive experience in successfully managing similar projects to showcase our proven strategies and solutions. By sharing our knowledge and expertise, we hope to empower managers to make informed decisions, mitigate risks, and successfully navigate the complex landscape of application modernisation.

Understanding and addressing managerial concerns by capitalising on the lessons learned

Staying competitive in the constantly evolving world of Manufacturing is crucial. However, the journey towards digital transformation is frequently hindered by managerial concerns.

By leveraging our extensive experience with various clients, we have learned valuable lessons that enable us to effectively address some of these fears and pave the way for a successful transformation.

Keeping Up with Innovation

Manufacturers sometimes hesitate to invest in technology that might quickly become outdated. Application modernisation tackles this concern by employing strategies like encapsulation, rehosting and refactoring. These approaches ensure that applications can adapt to emerging technologies, allowing organisations to future-proof their systems while maintaining stability.

Ensuring Data Security and Privacy

The modernisation process incorporates robust security measures to mitigate the risks of data breaches. By utilising encapsulation and refactoring techniques, sensitive components are isolated and redesigned according to regulatory standards.

Managing Costs and Return on Investment (ROI)

The fear of high upfront costs and uncertain ROI can hinder modernisation efforts. With the application of modernisation's phased approach, organisations can effectively manage costs by gradually implementing changes. This allows for better control over expenses while maximising returns on investment.

Ensuring Long-term Positive Outcomes

Lengthy modernisation projects benefit significantly from agile methodologies, incremental implementation, and regular alignment assessments. These actions ensure that projects evolve together with the organisations' needs, adapt to the dynamic environment and provide long-term benefits.

Understanding and addressing managerial concerns by capitalising on the lessons learned

Working on innovative solutions to these concerns, our strong tech teams compiled their valuable insights into actionable lessons for organisations looking to modernise their IT infrastructure:

Adapting to New Technology

The more new technologies and UX/UI practices are integrated into legacy software, the more help end-users need to adapt to the changes. A gradual development approach can lessen this challenge, enabling users to get used to the changes as they're implemented. Additionally, clear communication, feedback integration and comprehensive training can ensure that the new application seamlessly integrates into day-to-day business.

Nurturing In-house Expertise

Sustained modernisation success with minimal disruption requires internal expertise to manage the new technologies and applications. To address this potential challenge, organisations should pick a tech partner that can offer expert knowledge, training, and long-term support.

Operational Challenges

Efficient system integration is of utmost importance in modernisation. Re-platforming and encapsulation enable clients to seamlessly incorporate new technologies without encountering significant operational difficulties. By implementing rigorous testing and validation protocols, integration issues can be proactively identified and resolved, guaranteeing a seamless transition.

Operational Downtime

The objective of minimising operational disruptions can be accomplished through modernisation strategies that prioritise uninterrupted business operations. Adopting a phased approach allows gradual changes, thereby reducing the risk of prolonged downtime. This ensures a smooth transition with minimal impact, robust testing, parallel run strategies, and effective change management practices are implemented.

01. KEY LESSONS LEARNED FROM PAST PROJECTS

With 20 years of experience turning business challenges into opportunities and growth for major brands in Finance & Banking, Retail, and Manufacturing & Multi-Industries, our team has gathered many insights on integrating into our clients' businesses and delivering value.

Discover these four lessons our tech teams have learned while modernising enterprise-grade software and apply them in our projects:

1. Building Trust and Strong Relationships

Application modernisation projects often require an in-depth view of the client's operations, cooperation on many levels, and long-term commitments to generating value through future-ready software. It is paramount that organisations and their tech partner build strong relationships through reliable, high-quality work, and consistent communication is essential for long-term partnerships.

In the interest of building a strong partnership, our modernisation specialists focus on integrating within our client's value chain with a particular focus on some key areas:

Connecting with Stakeholders

Our teams begin each project with a consultative approach and the objective of establishing a steering board that includes project sponsors and an executive board. This helps us better understand different stakeholders' various business needs and goals and swiftly prioritise key components. We leverage Discovery Workshops, validated prototypes, and POCs to build a business case for modernisation and obtain internal buy-in and traction.

Promoting Transparency

The fear associated with selecting a new vendor often stems from concerns about their capability to deliver desired outcomes, particularly when previous partners have withdrawn due to complexity and pressure. To address this, Accesa prioritises maximum transparency to build trust. In the same sense, it's important to identify complementary skill sets between our team and the client's specialists. This activity enables us to create a trust-based relationship built on mutual understanding and effective communication.

Managing Change and Ensuring User Engagement

Effective communication and collaboration between subject matter experts from both organisations are crucial for developing new software and managing how the user base adapts to the changes. Our preferred approach is to establish a collaboration framework that includes internal and external key stakeholders and involves them in decision-making. This framework, paired with actionable strategies built on clear business cases, ensures that end users gain the support they need, both in terms of new technology and the knowledge of how to use it to its full extent.

Ensuring Long-term Team Motivation

Depending on the scope and complexity of a project, development can take quite a bit of time. Even when this fact is known from the planning phase, close communication and careful management are crucial in keeping the team involved and motivated for the whole project duration. For this reason, our specialists prioritise transparency and deliver solutions in smaller increments to showcase success early on. Additionally, we take great care to always honestly assess the current state and progress of the modernisation project.

2. Embracing Flexibility and Modernisation Opportunities

Based on past collaborations, we've noted that the most successful modernisation projects were those where the team adapted to evolving needs and unexpected challenges. This versatility brings peace of mind to managers, who know the development team is prepared to handle context changes while keeping business objectives and the end goal in mind.

It is important to note that unexpected changes can be both positive and negative, and each unique situation may need a different approach. That is a good reason why working with an experienced tech partner is ideal.

Modernisation projects are an excellent opportunity to optimise business processes beyond the initial business case that initiated the project. Identifying and capitalising on these opportunities can lead to significant **improvements in operational efficiency and productivity**, such as:

- Reorganise previously siloed data into a Cloud-based architecture, enabling organisation-wide access to information and leading to better decision-making.
- Implement new cybersecurity and compliance measures to keep the company's IT infrastructure and data safe and risks low.
- Add new features or enhance existing ones by integrating the software with new technologies, such as the Internet of Things, Cloud Computing, Robotic Process Automation, or Machine Learning.

Some of the challenges our specialists often face are the same reasons our clients choose to modernise their software in the first place — **limited capacity for adaptation, rising maintenance costs, and lack of documentation and subject matter experts.**

Flexibility is crucial in finding the optimal solution to these problems, whether making slight changes to the original code, rearchitecting the application or replacing it entirely with something new.

3. Gathering and Incorporating User Feedback

The Accesa team always aims to adopt an iterative and collaborative approach in modernisation projects and adjust based on user feedback gathered throughout the process. By actively involving end-users in the modernisation journey, concerns related to usability and functionality can be promptly identified and addressed. This enhances the user experience and significantly contributes to business goals and the overall project acceptance.

Collecting and valuing feedback means engaging all stakeholders in decision-making, from executives to end-users. This inclusive strategy serves a dual purpose: first, it helps manage the inevitable change that comes with modernisation effectively, and second, it ensures that the project aligns seamlessly with both user needs and overarching business goals. By fostering a collaborative environment, businesses can tap into stakeholders' diverse insights and perspectives, resulting in a modernised application that resonates with the broader organisational ecosystem.

Our specialists use feedback as a compass, guiding the modernisation efforts towards enhancements that generate real value. Furthermore, by embracing the user's experiences and preferences as an integral part of the development cycle, we foster a culture of continuous improvement, adapting to evolving user expectations and staying ahead of the curve in an ever-changing technological landscape. This communication-improvement loop serves as the critical link between technological innovation and user-centricity.

4. Ensuring Long-term Scalability and Growth

In addition to crafting solutions that address current business needs, we take great care to develop flexible and scalable applications that can accommodate future growth and changes.

Besides using modern technologies and building robust software, a challenge in ensuring scalability is anticipating technological advancements and the client's future needs. This foresight is crucial in fast-evolving sectors, such as the Manufacturing industry, where agility and reliability are paramount. By building applications that can seamlessly scale to meet growing demands, companies position themselves to navigate uncertainties and capitalise on emerging opportunities.

We've found that it's best to broach the topic of scalability and future growth as early as possible, as these factors can substantially influence the scope and results of the modernisation project. Later in development, this approach ensures clarity, helps address emerging challenges and uncertainty, and keeps the project on track.

In essence, a focus on scalability and growth ensures that modernisation doesn't just solve past or present difficulties and also leads to an IT infrastructure that remains effective in the long term.

Starting from our client's primary business challenges and managerial concerns, our modernisation specialists have developed a series of best practices that help guide projects from the planning phase to launch and support:



02. BEST PRACTICES FOR A SUCCESSFUL MODERNISATION PROJECT

Starting from lessons learned through practice and experience, we've devised a set of best practices for modernisation projects. This advice works in concert with the many conventions of modern software development and focuses on bridging the gap between technological innovation, effective collaboration, and business growth.

1. Comprehensive Risk Assessments

A thorough risk assessment is a crucial step in any modernisation project, as it helps the team identify and prepare for potential pitfalls early in the process, providing project managers with the assurance that unforeseen issues can be effectively managed.

Assessments also greatly help organisations and their chosen tech teams with budgeting. A robust budget should not only consider immediate development costs but also account for the diverse roles and expertise required throughout the project lifecycle. This effectively addresses the potential challenge of insufficient technical expertise or oversight in allocating decision-making roles to the right stakeholders. Addressing these risks through early identification and strategic planning helps ensure that budgeting aligns with the project's complexities and scope.

2. Continuous Collaboration

The success of a modernisation project is often determined by how effectively the organisation communicates and collaborates with its tech partner. Each group brings a key component to the table — internal stakeholders have insights into the company's processes and needs. In contrast, the tech team brings the modernisation knowledge and experience needed to modernise the software with minimal disruption.

It's important to note that effective collaboration involves more than just sharing feedback.

The first step is active engagement from in-house experts from the onset, ensuring that the developers get a complete overview of the infrastructure. This process is essential when knowledge is spread out across various stakeholders, or the legacy software needs more documentation. During the planning phase, close communication and joint effort are instrumental in discovering requirements and envisioning the new solution. Next, actively sharing feedback, concerns, and updates helps the project stay on track while in the development, testing, and support phases.

3. Incremental Implementation

Operational downtime, slow employee adoption, and deviation from the planned functionalities are concerns many organisations have when they set out to modernise their IT infrastructure. Therefore, it is best to adopt an incremental implementation approach, which addresses each challenge by gradually rolling out updates, keeping all stakeholders updated on the project's progress, giving users time to adapt, and keeping disruption to business-as-usual at a minimum.

A fundamental principle in this approach is starting small and validating often and early. Commencing with small, end-to-end proof of concepts serves a dual purpose — it validates the capabilities of the modernisation effort and offers a realistic understanding of the business requirements. Early and frequent validation with decision-makers is essential to avoid costly delays and ensure that priorities are set correctly. Deviation from this model often means delayed decisions and leads to serious budgetary setbacks.

Another significant benefit to this approach is that in-house specialists receive continuous learning and support, enabling them to bridge the expertise gap gradually. The intended result is to have a group of internal stakeholders ready to handle the new software's maintenance, support its users, and ideate new functionalities to provide further value to the company.

With a consultative and collaborative approach and leveraging our tech team's experience and best practices, our specialists have dedicated themselves to solving modernisation challenges for top companies in the manufacturing industry:

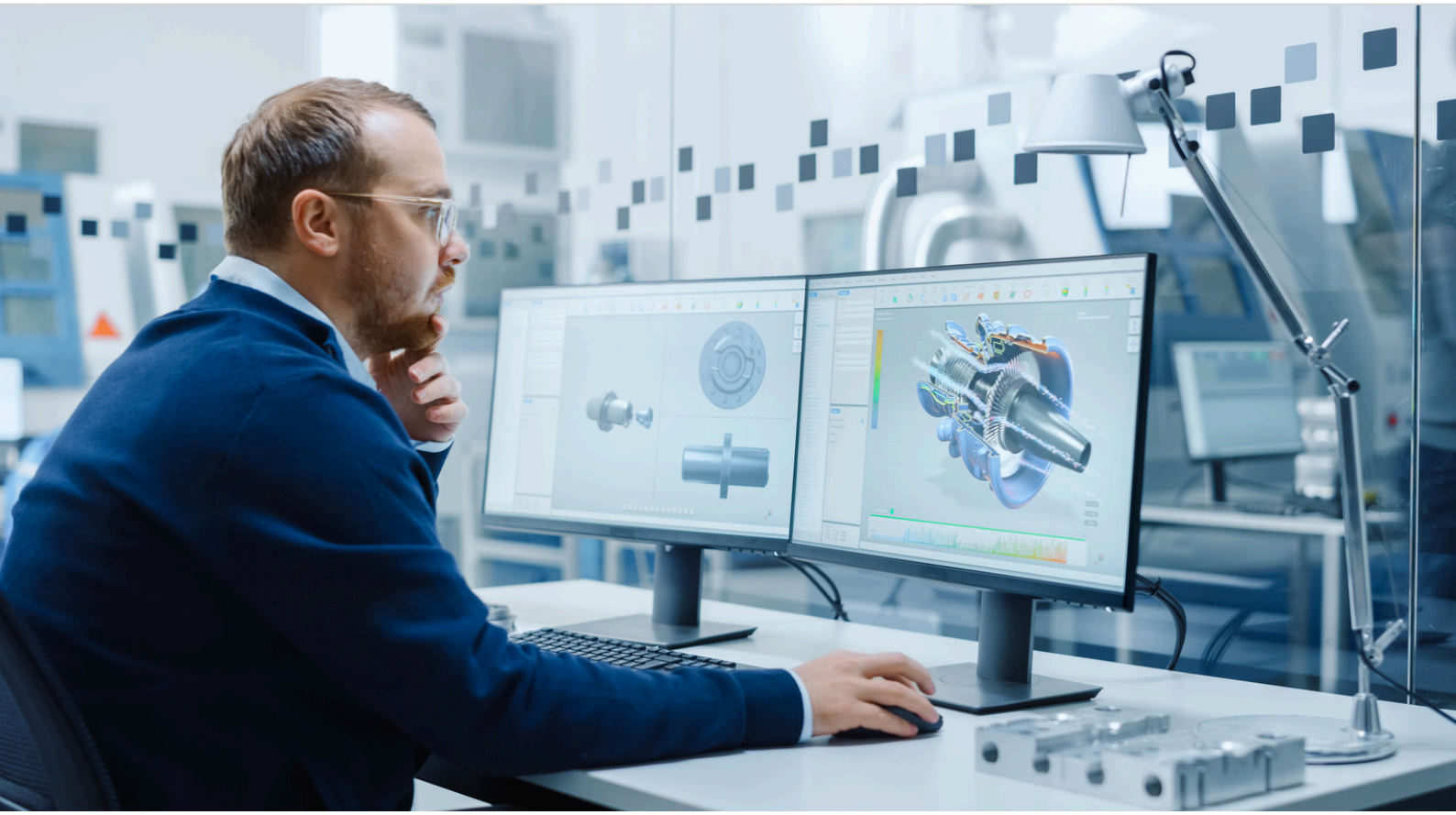
03. APPLICATION MODERNISATION SUCCESS STORIES

CLIENT STORY

STREAMLINING THE SALES PROCESS FOR A LEADING SUPPLIER IN THE TEXTILE INDUSTRY

We modernised a 30-year-old legacy app that supports the entire sales process of our client's products and services. Using reverse engineering and working in a Scrum framework, we built a new custom solution with all the needed functionalities and an improved UI/ UX experience.





Challenges

Our client faced challenges maintaining and adding new features to a 30-year-old legacy sales application.

The outdated custom software negatively impacted the work of 200+ sales specialists and back-office staff worldwide, who needed help generating quotes for their clients.

Lacking documentation and in-house expertise, our client partnered with Accesa as we had proven experience with similar projects.

Our approach

As the original developers retired and no documentation was available, the Accesa team mapped the application's touchpoints in the business flow and decided to reverse engineered the original code.

Our experts closely collaborated with various stakeholders to better understand how the features worked, finding ways to improve them and bring even more value. Working in a Scrum framework enabled our team to deliver incremental value and receive in-time feedback from the end-users.

Regular User Acceptance Testing (UAT) ceremonies and transparent discussions with our technical experts ensured an efficient change management process within the organisation.

Results

Accesa developed a new, highly maintainable and configurable sales platform using modern technology, ensuring long-term viability and scalability in line with our client's growth objectives.

The client entrusted us with a 2-year contract for maintenance after the project's release.

Highly
maintainable, configurable and scalable new sales platform

Easy
integration with existing workflow validation systems, SAP, and supply chain solutions

Modern and unified
user experience for our client's 200+ sales and back-office specialists

Increased
productivity as it reduces the time for generating quotes from minutes to seconds.

CLIENT STORY

MODERNISING A HIGH-TECH LAB EQUIPMENT APP TO RESPOND FASTER TO FUTURE MARKET NEEDS



We modernised a system of software applications for scientific and laboratory measurements, leading to increased efficiency, unified user experience, and quick response to customers' demands. By improving the development process and code quality and integrating code modularisation, we reduced new feature delivery time from once every six months to once every two weeks.



Challenges

Lacking in-house knowledge, our client, a leading supplier of high-tech measuring and laboratory equipment, needed a trusted partner to help them build a viable and scalable solution suitable for their future business challenges.

The application ran on a deprecated software framework, which led to low performance, unsatisfying user experience, and a declining pace of innovation in addressing customers' demands.

Software's tangled code made it challenging to implement ongoing improvements, and adding new features posed high risks and costs.

Our approach

To better understand our client's challenges, we organised an audit workshop, where we involved all the stakeholders and gained insights into developing a technical solution fit for their future business needs. By doing this, we came up with a scalable solution that can be applied to other future products from our client's portfolio, significantly reducing time to market.

Working closely with our client, we structured the project into phases, outlining clear objectives and setting the expected results. We strategically planned discovery workshops throughout each phase to empower product managers to make well-informed decisions, assess risks, and address challenges proactively.

Aiming to reduce possible disruption and decreases in productivity, we gradually shifted functionalities from the old to the new application, maintaining feature parity throughout releases while adding new features.

Results

Accesa managed to modernise an app which now provides faster and more accurate scientific measurements, leading to increased productivity and quick decision-making.

Our strong technical teams enabled a unified and enhanced user experience, resulting in high user adoption rates. Our modernisation approach is scalable and can be applied to other products of our client's portfolio, reducing their time to market.

Increased
efficiency by improving the development process and code quality.

Simplified
in-house maintenance by integrating code modularisation.

Unified and enhanced
user experience by consolidating 7 apps into 2 with a user-friendly interface

Quick
response to market demands by reducing new feature delivery time, from once every 2 years to once every 6 months.

When it comes to your application landscape, age is not just a number!

Manufacturing companies fearing software modernisation should focus on thorough preparation, active stakeholder engagement, and creating a culture of collaboration.

We know how important all these dimensions and perspectives are for decision-makers. We pride ourselves in understanding the triggers for modernisation, addressing internal and external challenges, focusing on building a business case, managing change, and fostering a consultative and co-creative approach.

This is why we extend an invitation to industry leaders who recognize the strategic value of app modernisation for enhancing productivity:

Step 1: Strategic Assessment for Modernisation Readiness

A methodical assessment of your current system is imperative. This is why our team will walk you through a detailed pre-discovery checklist to best identify your organisation's readiness for app modernisation by covering six key drivers:

- **Business Fit**
- **Business Value**
- **Business Agility**
- **Technical Cost**
- **Technical Complexity**
- **Technical Risks**

Exclusive Invitation for Prepared Enterprises

Based on the assessment, a group of 5 to 10 companies demonstrating a high level of readiness will receive an invitation for a personalized deep-dive worksession - a critical step in the modernization journey.

Dürr

In Accesa we found a reliable agile partner capable of helping us deliver competitive paint shop solutions to our customers which will accelerate transparency in their production. Together with Accesa's team, we worked on improving the overall equipment efficiency, by detection and visualization of potentially unfavorable factory conditions. On the collaboration side, Accesa's flexibility, technical expertise, and fast ramp-up time stand as the collaboration ingredients we value the most.

Markus Hummel | Senior Manager

Step 2: Concrete Outcomes Through a Discovery Workshop

The Discovery Phase is more than just a preliminary discussion. It delivers tangible results – a well-defined development vision, high-level user journey, MVP story map, solution blueprint, and estimations.

This approach ensures that you possess the necessary data, stakeholder engagement, and insights for seamless integration.

Our commitment extends beyond the present, and these outputs serve as a strategic foundation, even if the decision to proceed with us takes time.

Step 3: Empower Your Organisation to Make Informed Decisions About App Modernisation

Contact us today to schedule your assessment and secure your spot in the exclusive Discovery Workshop. The 15K Euro Discovery service fee is deducted from your initial development services invoice.

About Accesa



20
years of experience



70+
satisfied clients



1200+
IT specialists and certified experts



30%
of the employees are German speakers



66
NPS score



98.9%
of our customers say that by collaborating with us, they're able to meet their business objectives.