OLIVER WYMAN

MODERNIZING IT PLATFORMS SUCCESSFULLY

HOW PLATFORM RENEWAL PROJECTS CREATE VALUE

INTRODUCTION

The machinery and plant engineering industry is under pressure to transform. Globalization, new competitors, demand for product tailoring, and digital transformation – among other challenges – are all putting pressure on companies to act. Flexible and scalable information technology (IT) platforms are indispensable for meeting these challenges. Consequently, modernizing IT platforms tops the list of priorities for machinery and plant engineering companies today. More often than not, however, IT modernization projects don't deliver the desired results. Oliver Wyman has identified five key factors that determine whether a platform renewal effort will be successful in the long term. Most critical is that companies must adopt an integrated business transformation approach, develop joint management (functional department and IT) of platform modernization projects, and carry out intelligent modular scoping and release planning.

WHY MODERNIZE IT PLATFORMS?

Machinery and plant engineering companies are facing manifold challenges and are under pressure to transform to meet evolving market and competitive trends. In most cases, this also means upgrading their IT platforms.

GROWTH, INTERNATIONALIZATION, AND NEW MARKETS

Machinery and plant engineering companies face increasing internationalization, which has brought with it a raft of new competitors from emerging markets. This means that companies are looking to shift more of their value creation to lower-cost countries, which will impact the organization and make product and service provision more complex. Another response to increased competition has been to make acquisitions – both to strengthen the core business and extend into new market areas or geographies. These acquisitions must then be integrated into the company's existing organization and processes.

DIGITAL TRANSFORMATION

Services and products will need to evolve more quickly in response to rapid changes in the digital sphere. "Big Data" and "Industry 4.0," for example, will require greater online transparency into all of a company's operational areas, but may offer huge opportunities to improve both offers and solutions for customers.

PORTFOLIO AND INTERNAL CHALLENGES

Success in new markets will mean tailoring products to the needs of each individual market. This will lead to product portfolio growth and, consequently, a larger number of variants, which will pose additional challenges. Moreover, it is important to find solutions for "homemade" inefficiencies in organizational and operational structures – such as non-value adding processes, insufficient automation, and unclear responsibilities.

As a consequence of these challenges, machinery and plant engineering companies are facing rising complexity, which opens up new prospects for IT to make a difference. In the past, IT responsibility was limited mainly to providing necessary infrastructure; now, IT also must increasingly focus on enabling new business designs.

Prior to undertaking any IT modernization project, however, it's important to understand the challenges that IT faces as well:
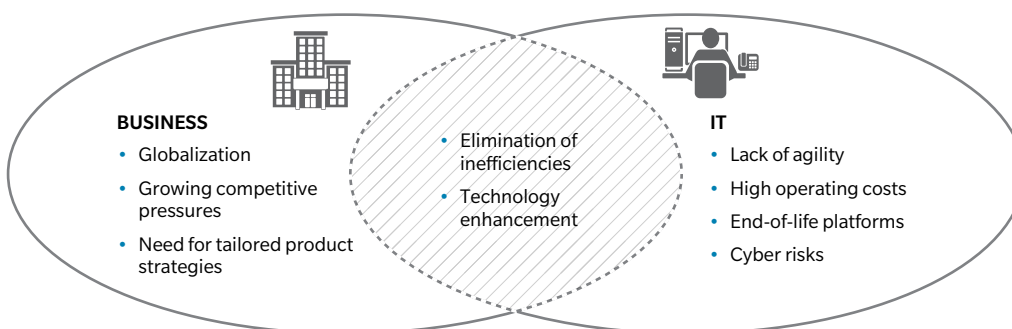
IT CHALLENGES STEMMING FROM THE BUSINESS

As a business enabler, IT is responsible for developing technical solutions that can support the company's efforts to deal with growing challenges and transform as needed. In this context, the core IT task is to provide sophisticated systems that can help the organization master complexity. Only through such mastery will companies be able to stay in the market and competitive over the long term. The other side of the coin is that top management and functional departments must deal with IT security risks and espionage more frequently. What is required from IT then are systems with flexible "docking points" that enable growth on the one hand and comprehensive protection against attacks on the other.

CHALLENGES WITHIN IT

Often, IT also must deal with internal challenges when attempting to modernize existing platforms. Lack of agility is an important issue: Home-grown legacy systems with too many interfaces are common, together with SAP systems that are no longer being maintained because the standard has been adapted too extensively or the company has switched providers. Legacy systems are not even remotely capable of meeting the significantly higher demands for technical flexibility and scalability required for IT systems today. These systems often generate high IT operating costs as well, as they can require a lot of hands-on effort to deal with any change, no matter how small. In addition, there may be only a small number of people with the relevant knowledge to support and adapt legacy systems.

Exhibit 1: Challenges facing machinery and plant engineering companies

BUSINESS
- Globalization
- Growing competitive pressures
- Need for tailored product strategies

- Elimination of inefficiencies
- Technology enhancement

IT
- Lack of agility
- High operating costs
- End-of-life platforms
- Cyber risks

WHY DO PLATFORM PROJECTS FAIL?

Oliver Wyman surveyed 150 CIOs on the management of large IT projects and found that one out of three platform renewal projects falls short of the mark. The study also determined that there are several key reasons why this happens:

WEAK LINK TO THE BUSINESS

Platform renewal efforts are supposed to generate multiple benefits, including:

- Enabling growth, e.g., by harmonizing the IT platform internationally
- Accelerating time-to-market by enabling greater flexibility in product configuration and faster cycle times in product engineering
- Increasing productivity through lower process and operating costs as a result of greater automation and the mapping of standardized processes into a modern IT platform
- Improving the company's risk profile, through higher standardization and greater data integrity

Oliver Wyman's monitoring has revealed that 70 percent of all platform renewal projects fail to establish and quantify their link to these benefits. This not only weakens the commitment and loyalty of stakeholders, but also means that there is no basis for making decisions about possible scoping, cost, or duration adjustments during the course of the project.

NO FOCUS

When they are part of a larger transformation effort, IT platform modernization projects can seek to address too many business areas and processes in parallel and fail to focus on achievable goals. The traditional textbook approach of "IT follows business" is not appropriate here.

LACK OF OPERATIONAL PLANNING

Operational planning often neglects essential elements. As a result, project plans cannot be met or transformation efforts are underrated. The time needed for individual project phases is frequently underestimated – this is particularly true for the "testing" and "data migration" phases, which include both concept preparation and pre-roll-out execution. Lack of project planning also impacts day-to-day business, for example, if project staffing and operational capacity planning are not synchronized.
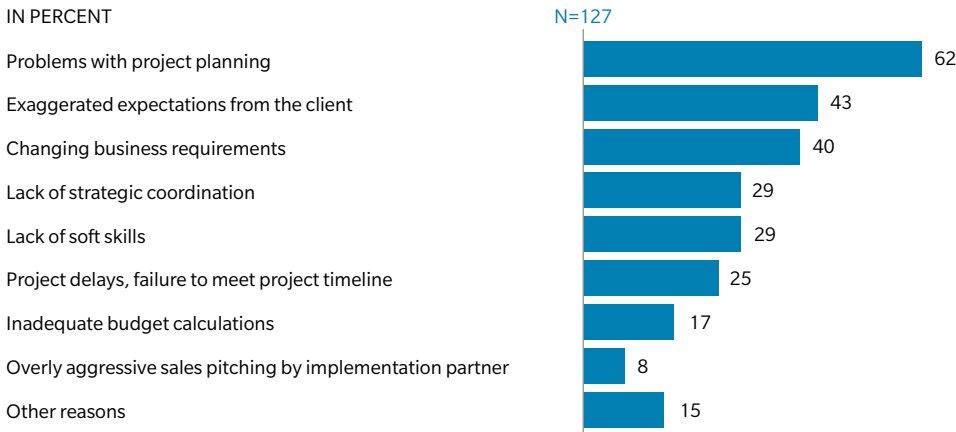
NOT ENOUGH OWN CAPABILITY/CAPACITY FOR IMPLEMENTATION

A company may not have sufficient employees in-house with the right qualifications to carry out such complex projects. One option in such cases might be to partner with an external services provider to design, implement, and operate an application platform for a new business area, as such a platform could be operated independently from the existing application landscape. Even when a service is largely outsourced, however, a strong internal project team is still needed that can clearly formulate what it wants from the partner.

~60%

of the interviewed companies are not fully satisfied with the results of major IT projects. The most prevalent reasons are deficient planning, unrealistic objectives, and insufficient flexibility.

OVERSHOOTING THE MARK

Finally, many platform renewal projects fail for the simple reason that they overreach. The best example of this is post-merger integration. In many cases, an ERP transformation is kicked off immediately to ensure that the merged companies share a common ERP platform. However, such an enormous project is not an absolute must. In general, it is enough to consolidate the financial systems in the short term by means of a common finance layer, to meet immediate needs.

Exhibit 2: Primary reasons for the failure of large-scale IT projects

IN PERCENT   N=127

Problems with project planning	62
Exaggerated expectations from the client	43
Changing business requirements	40
Lack of strategic coordination	29
Lack of soft skills	29
Project delays, failure to meet project timeline	25
Inadequate budget calculations	17
Overly aggressive sales pitching by implementation partner	8
Other reasons	15

Source: Survey done by CIO2CIO and IDG Business Research Services of more than 150 IT decision makers in medium to large German enterprises in 2012 on behalf of Oliver Wyman, multiple answers possible.

FIVE KEY FACTORS FOR SUCCESS

Given the above challenges and reasons why IT platform projects fail, Oliver Wyman has identified five key elements that can make or break IT modernization:

1. Integrated transformation approach

A holistic transformation concept should be based on overarching corporate strategy and take into account the dimensions of business processes, organization, IT, and corporate governance. This structure calls for clearly defined responsibilities and ownership for the platform renewal project on the part of the board and operational management.

To achieve desired results, it is important to not only take IT-driven goals into account, but also the needs of IT users. At the same time, the business must be able to adapt to changing market and competitive conditions. Because an integrated transformation program is highly complex, it is important to clearly focus on achievable goals and to implement them across clearly defined business areas and processes using a milestone approach. Prioritizing the corresponding processes of the functional departments goes hand in hand with successful platform renewal.

2. Transformation geared to value contribution

Platform renewal projects are ill-fated right from the beginning if their quantifiable benefits to the business are not defined. Even if a company manages to initiate a project with, for example, the help of active supporters, there will be no lessening of calls for value contribution and purpose during the course of the project.

Furthermore, questions will be raised about effort and duration, especially at strategic milestones. A transparent business case is indispensable for providing a long-term answer to the question of "why" transformation is necessary. It is advisable in this context to develop multi-level "transformation vs. value contribution" scenarios in order to compare different ROI indicators. It is also essential here to take the increase in risk into account, especially in the case of large-scale transformation programs.

3. Joint management of platform renewal projects by the functional department and IT

Modernizing the IT platform is not an end in itself for IT. The main focus must be on business requirements, and it is critical to success to involve the functional departments from project kick-off through launch. Consequently, the functional departments and IT should be jointly responsible for implementation. Responsibilities should be clearly defined: While the functional department representatives are focused on defining requirements, designing the blueprint, and professional change management, the IT department should be primarily responsible for the technical architecture and implementation strategy, as well as for managing potential implementation partners.
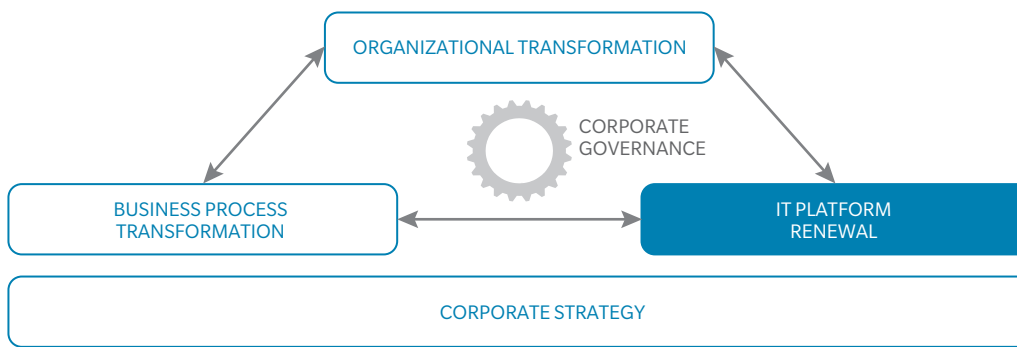
4. Invest in excellence during implementation

Implementation success largely depends on the availability and commitment of core project resources, who must consequently be freed from other tasks. In addition, it is important to set up program management that synchronizes and prioritizes the platform transformation roadmap with any urgent roll-out and development needs for the existing platform. Last but not least, a dedicated incentive model must be established that, on the one hand, links top management and project management performance to the project's success and, on the other, provides project managers with attractive opportunities for returning to the line organization after the project has ended.

5. Intelligent scope/release planning

It is important to manage the transformation in a way that minimizes risks. Intelligent scope/release planning, which has both a functional and a technical dimension, plays a key role in this. From a functional perspective, it is crucial to derive realistic platform requirements from general strategic conditions and operational business. One of the most important tasks here is to prioritize these requirements. The technical perspective highlights architectural components that can be introduced in the form of modules as well as multi-release strategies. Breaking releases down into smaller, easier to control units reduces launch risk – both on the technical side and on the part of users – even in complex interim scenarios. In addition, transformation can be adapted to changing business circumstances and, consequently, to an updated business case. In this way, it is possible to keep or selectively improve well-functioning architectural components, reducing the level of necessary effort, relieving the pressure on the company, and speeding up implementation.

Exhibit 3: Integrated transformation approach

ORGANIZATIONAL TRANSFORMATION

CORPORATE GOVERNANCE

BUSINESS PROCESS TRANSFORMATION

IT PLATFORM RENEWAL

CORPORATE STRATEGY

CASE STUDY

A machinery and plant engineering company asked Oliver Wyman to evaluate its current plan for launching an integrated ERP solution. It was important to take the issues of process harmonization, standardization, and achieving early project success into account during a pilot launch.

Oliver Wyman conducted a realignment phase investigating in particular the program scope, structure, and methodology as well as the architectural template design and the release strategy. As a result, the program was realigned. Prioritization of business requirements and linkage to a multi-release approach led to successful implementation in terms of time and budget.

Key lessons learned from this project:

- When defining sustainable roll-out and launch plans, it is essential to have profound knowledge of the "as-is" situation, and to define migration, target picture, and operating model strategies early on.
- It is crucial to involve the relevant functional department(s) in project management and implementation. This was achieved in this case by establishing a clear concept for the business process owner role for each technical work package.

CONCLUSION

In summary, IT platform renewal projects are the foundation for machinery and plant engineering companies to secure their competitiveness in the long term. These projects do place high demands on IT departments, and often their expected potential can only be unlocked if they are combined with a holistic transformation of the company. The success factors described above provide a starting point, but of course must be customized to the exact needs of each company and transformation project. The extent to which a company can deal with transformation on its own differs, as does the additional risks to project success as a result of insufficient planning or poorly defined goals. When necessary, partnering with external experts can help reduce project duration, improve adherence to budgets, and ensure holistic risk management is in place, thus securing the value contribution of an IT platform renewal project.

ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting. With offices in 50+ cities across 25 countries, Oliver Wyman combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation. Together with clients we develop and implement sustainable growth strategies.

Oliver Wyman's Manufacturing Industries practice supports manufacturing companies in restructuring and realizing profitable growth. The practice combines deep industry expertise with specialized skills and our goal is to rapidly make a real business impact for industrial enterprises around the world.

The Strategic Information Technologies & Operations Team of Oliver Wyman combines profound technology expertise with a comprehensive understanding of business processes. In our projects the experts revert to experiences of all industries and along the entire value chain.

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