Roland Berger Focus

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RPA – Tomorrow's must-have technology

How robotic process automation can speed up your business

Roland Berger

"Robotization" is quickly gaining ground in various industries and across corporate functions. Firms should now start looking seriously into robotic process automation (RPA). To fully leverage this promising new technology, companies need to understand what it is, recognize its benefits, and then decide how and when best to implement it. Overall, we found that up to 40 percent of tasks in administrative departments and operational business functions have a significant RPA potential. Firms can achieve annual savings of up to 40 percent of the respective costs and reductions in process time of 40-70 percent thanks to the automation of repetitive tasks. The payback period for implementing the new technology is highly attractive, often at just six months to a year.

WHAT IS RPA?

Robotic process automation (RPA) is a software solution that simulates a "virtual employee". It interacts with existing applications in the same way that a human being would, but faster, more transparently and with greater efficiency.

RPA software applications focus on standardized, stable processes and follow a rule-based decision logic to execute activities. They are compatible with most IT systems and software solutions and do not require changes to existing IT infrastructure; they complement current systems rather than attempting to replace them. The technology can easily be adapted to new systems, too. It therefore has a very wide range of applications: Robots can process transactions, transform physical data into digital data, trigger email responses and communicate with other IT systems as well as internal and external clients. → A

Conventional wisdom among industry leaders is that companies have reached a critical point in the development of the digital economy. Industry challenges indicate that digital technologies are not just the shiny front end of companies anymore, but need to be embedded in every single corporate function and process. RPA is tomorrow's must-have technology, a core part of the next generation of operating models.

Companies are plagued by sub-optimal utilization of resources due to excessive repetitive "click-copy-paste" transactions. Human error is a universal challenge in transactional activities relating to manual data entry and reconciliation. It is paramount for firms to maximize efficiency, increase cost flexibility and ensure secure and agile processes – all areas where RPA delivers significant benefits.

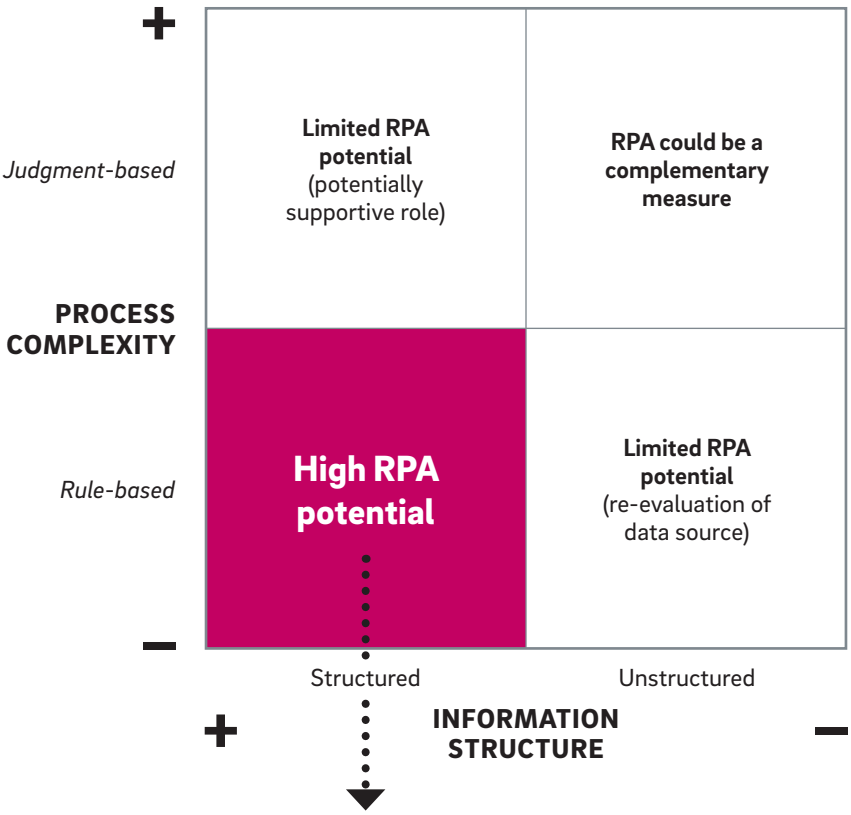
To identify the current level of maturity, we conducted a study of more than 20 firms in different regions and industries. The results were impressive. For many companies RPA was much more than a performance improvement tool. Deploying the technology across functions set a digital spark among entire teams and departments. After successful initial implementation, employees proactively assessed new functions and identified several processes with RPA potential.

WHAT ARE THE BENEFITS OF RPA?

RPA offers a wide range of benefits, such as improved speed, efficiency, flexibility, scalability, process control, quality assurance and customer satisfaction. And RPA is easy to implement, too. We look at each of these advantages below.

Higher speed and efficiency: RPA solutions increase processing speeds by up to 15 times and can work on demand or 24/7. One robot can on average perform the work of two to five full-time employees, depending on process complexity, implementation quality and optimization of usage. In terms of financial impact, RPA offers highly promising returns. Project experience indicates cost savings of up to 40 percent, with payback periods of just 6-12 months.

A: Where does RPA have the greatest potential?
RPA is most effective with simple processes and structured data



- > *Log into any application*
- > *Move files and folders*
- > *Open emails and attachments*
- > *Connect to system APIs*
- > *Scrape data from the web*
- > *Extract and process structured and semistructured content from documents, PDFs, emails and forms*
- > *Copy and paste data*
- > *Read and write to databases*
- > *Make calculations*
- > *Communicate via chatbot*

Source: Roland Berger

Flexibility and scalability: RPA solutions give companies more flexibility in reacting to demand fluctuations. This is particularly useful for big companies with international growth ambitions in at times volatile markets. The scalability of RPA also creates great opportunities for smaller startups with ambitious growth plans: RPA can help early-stage ventures scale up with fewer restrictions.

Improved process control: RPA keeps processes in-house, which facilitates control. The technology therefore represents a compelling alternative to offshoring and outsourcing, particularly for tasks with low complexity but high volumes.

Effective quality assurance: RPA solutions function practically error-free and thus ensure a regulatory-compliant process. This essentially eliminates the need for quality checks by employees. Indeed, robots can conduct full data reviews and draw up investigation reports themselves.

Enhanced customer satisfaction: RPA can lead to improved customer satisfaction through increased responsiveness in customer interactions. Robots not only perform tasks faster than human beings, they also work around the clock.

Ease of implementation: RPA solutions are automated processes that feed into the existing IT system, so no extensive changes to legacy systems are required. The overall implementation time from initial idea to deployment of robots is not more than 12 to 18 weeks in most cases.

WHERE CAN RPA BE USED?

RPA is a tried and tested technology whose potential is continuously evolving. As mentioned above, RPA solutions are most suitable for standardized, stable processes that follow a rule-based decision logic. However, in line with the concept of "end-to-end process optimization", RPA can also support the automation of processes across departments, such as purchase-to-pay, order-to-cash, record-to-report or hire-to-retire processes. This can create further savings potential. For this reason, RPA solutions are already popular with functions such as Finance and Procurement and in banks and insurance companies, which offer largely non-physical goods and services.

Startups are increasingly looking to RPA. Their trajectory and ambitious growth plans often necessitate a high degree of manual work in supporting functions such as finance and accounting. This can prove a hurdle to growth. RPA is a highly suitable solution for enabling scalability.

But RPA is equally promising in other industries, in both administrative departments and operational business functions. We have carried out numerous projects in recent years helping leading players in multiple industries identify, design and implement RPA solutions. The cost savings have been confirmed repeatedly. Often, the result is not the decline of staff numbers. Employees are rather able to perform tasks with greater added value. → B

B: All industries can benefit from RPA

Cost and time savings, freed-up working time (FTEs) and payback periods (actual examples)

	COMPANY A	COMPANY B	COMPANY C	COMPANY D
DEPARTMENT	**Accounting**	**Procurement**	**HR**	**Operations**
FUNCTION	Accounts receivables reconciliation	Procurement execution process	Employee payroll processing	Supplier invoice handling process
RESULTS				
Reduction in processing time	70%	65%	45%	50%
FTEs freed up	35%	30%	35%	40%
Payback period	6 months	8 months	6 months	10 months

DEPARTMENT	PROCESS	COST SAVINGS POTENTIAL[1] (0% – 100%)
Accounting	Customer dunning	30-35%
	Invoice interfacing	35-40%
	Statutory reporting	15-20%
	Month-end closing	25-30%
Procurement	Supplier management	30-35%
	Master data management	20-25%
	Contract management	10-15%
Treasury & Controlling	Cash management	10-15%
	Bank account reconciliation	25-30%
	Management reporting	15-20%
HR	Recruiting process	15-20%
	Employee onboarding	25-30%
	Queries & ticketing	15-20%
Operations	Customer data management	15-20%

Source: Roland Berger

1) Depending on current automation level

WHAT IS A GOOD ROADMAP FOR RPA?

Implementing RPA solutions can be quick, but requires a well-structured approach and careful preparation in order to ensure sustainable benefits. We suggest the following roadmap for firms starting out on their journey to RPA implementation. → C

Step 1: Conduct a feasibility study

The first step is to conduct a feasibility study to evaluate the applicability of RPA solutions in those areas of the firm thought to have high potential. The feasibility study should include a preliminary analysis based on interviews, focusing on the relevant process landscape, system architecture, interface structure and personnel cost base. Firms can then calculate the potential of RPA using specific criteria, such as working time (FTEs) freed up, data quality, variability and exceptions, number of process steps involved and IT systems affected.

Step 2: Analyze the process and develop a business case

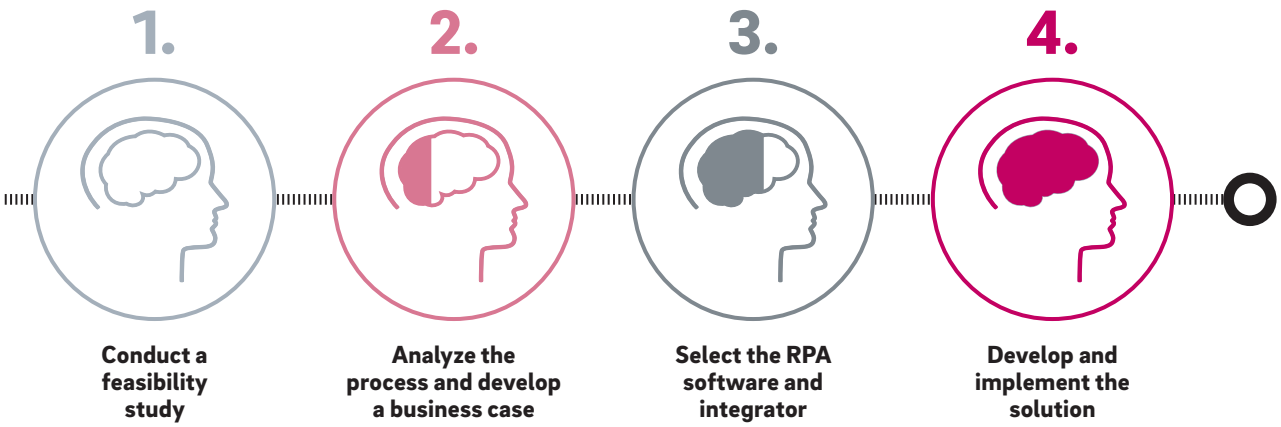
Firms should then conduct interactive "process walk-throughs" for processes with high RPA potential, in which key stakeholders go through the steps involved in detail. Existing process documentation can be helpful here, but walking through the process in a one-day workshop will help identify any deviations between the official process and real life. Robots are a full potential substitute for human employees, so changes to existing processes are not required. However, the process analysis will allow the company to review existing processes and streamline them if required.

Step 3: Select the RPA software and integrator

The market for software and for integrators can lack transparency, making it difficult for companies to identify reliable partners. Here, it is necessary to consider both the software provider and the integrator as these

C: RPA implementation roadmap

Four steps to success



Source: Roland Berger

two pieces of the puzzle constitute the core elements of a successful RPA implementation. It is worth noting that RPA software providers do not usually offer integration services themselves, but rather work with independent RPA integrators.

Developing and integrating an RPA solution requires specific IT capabilities. For this reason, we advise clients to work with an RPA integrator the first time they implement a solution. After gaining experience from one or more successful implementations, they can gradually take over integration responsibilities internally.

CASE STUDY

RPA in action

The management of a leading logistics firm felt that the company needed to become more efficient and more flexible to expand its market position and profitability in a volatile industry. This could be achieved by deploying RPA in back-office operations, such as finance, accounting, procurement and human resources. By integrating software robots and artificial intelligence (AI) solutions, manual tasks such as entering, processing and transferring data could be fully automated. As well as working around the clock with a zero error rate, the technology can carry out 70+ transactions in less than two hours – work that previously took the company's employees more than a day to complete.

The company was aiming to reduce costs and increase scalability as part of a larger end-to-end digitalization and automation exercise. The savings generated by RPA constituted more than 50 percent of the overall cost-savings target and the solutions had a payback period of less than 9 months. Changes in workload can now be managed much more flexibly. Not only that, the system frees up staff from repetitive, low-value tasks and enables them to concentrate on more complex, higher-value tasks.

Step 4: Develop and implement the solution

The selected RPA integrator should take the lead in the technical development and implementation of the solution. However, it is essential that process knowledge is transferred to the implementing company during the implementation: The faster a firm manages to build up its own RPA implementation capabilities, the sooner it can reduce the costs of RPA development and its dependency upon external vendors in subsequent implementation projects. In fact, implementation is an ongoing process, with RPA solutions being optimized and fine-tuned over time. Once the company has built up its own RPA capability, it should continuously be on the lookout for new areas where it can implement RPA solutions.

After successful implementation of the initial business cases, companies can generally use the same roadmap to develop and implement further RPA solutions in-house, with limited or no external support.

WHEN SHOULD WE START?

Process automation is rapidly becoming a competitive necessity. However, companies that react quickly can still enjoy a first-mover advantage over their peers.

RPA solutions are gaining momentum across industries and corporate functions, and we strongly believe that RPA will become part of everyday business life in the medium term. Recent developments support this belief, with even traditional industries embracing RPA solutions. In many cases, companies have rolled out the technology across multiple functions simultaneously.

We expect to see rapid change. Complementary technologies such as artificial intelligence (AI) will further increase the possibilities of RPA, removing any remaining hurdles to implementation. Ultimately, we expect to see the almost ubiquitous application of RPA solutions across all industries. RPA will become a must-have technology – and the sooner companies take action, the better.

WE WELCOME YOUR QUESTIONS, COMMENTS AND SUGGESTIONS

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