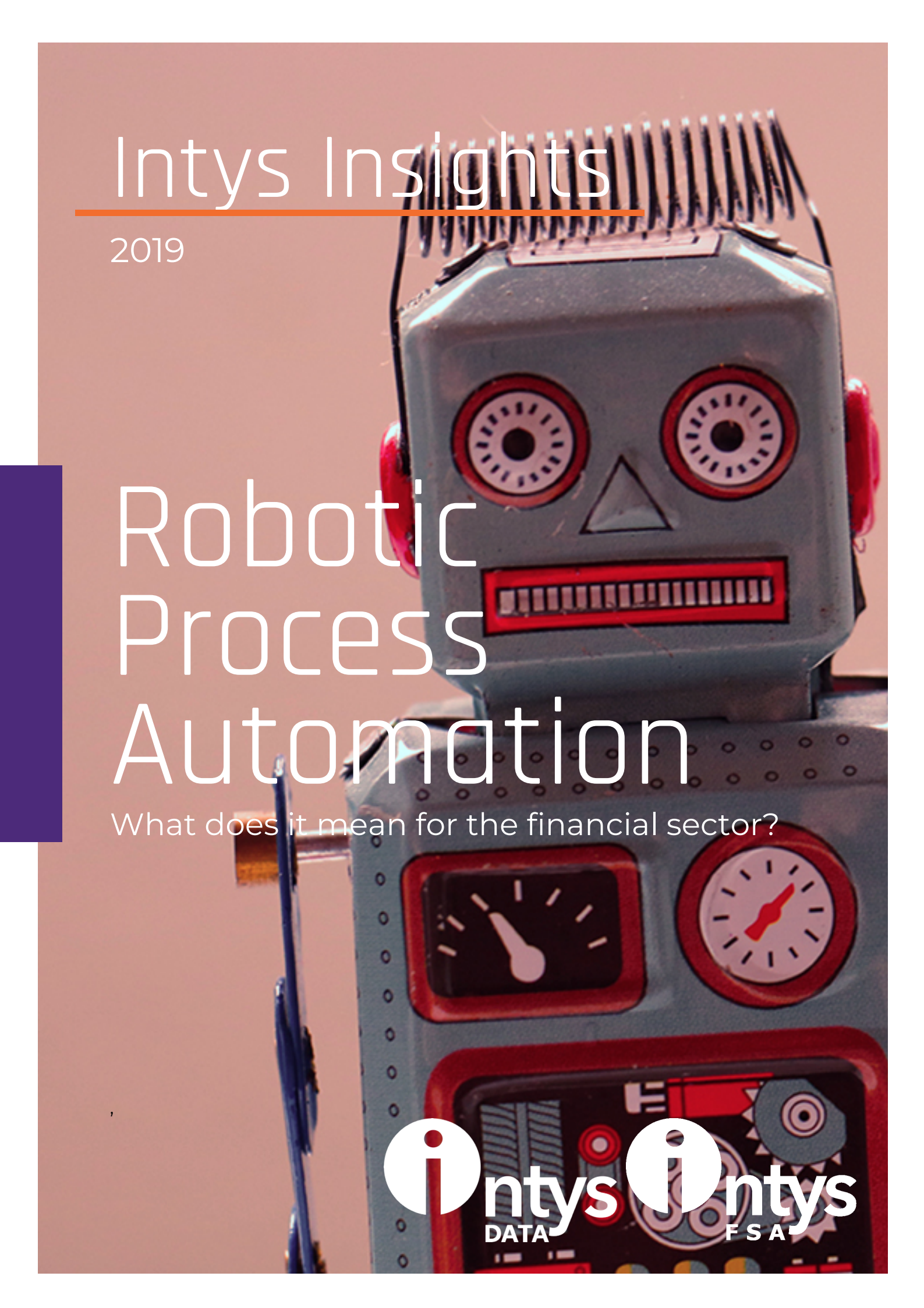


A vintage-style robot toy, possibly a tin robot, with a grey body and red accents. It has a square head with two circular eyes, a triangular nose, and a red rectangular mouth with white teeth. The robot has a series of black vertical lines on its head, resembling hair or antennae. It has a blue arm visible on the left side. The background is a solid light brown color.

Intys Insights

2019

Robotic Process Automation

What does it mean for the financial sector?





Robotic Process Automation

What does it mean for the financial sector?

- Definition of RPA
- Stakes & Benefits
- Applications for the Financial Sector
- How to launch a RPA initiative
- Michaël Köttgen, Head of E2E Process Change & Accounts at BNP Paribas Fortis
- Success story
- Challenges
- Best Practices
- Jordan Van Eetveldt, Intys consultant
- Tools

Introduction

"Robotic Process Automation will help humans become more human at work"

(cielotalent.com : How Robotic Process Automation Will Help Humans Become More Human at Work)

More and more companies are facing strong market evolutions that are affecting their businesses, costs and people management. To be viable and obtain a competitive advantage, companies need to strategize all processes in order to better allocate resources to valuable operations.

Financial services companies have built multiple and complex legacy IT systems over the years. Employees manipulate these in order to finalize a specific process. All of these human interactions can potentially result in errors, additional delays and important staffing costs.

The solution is a system working 24/7 and eliminating risks of mistakes at a comparatively low cost.

The Robotic Process Automation (RPA) is an innovation that integrates the actions of a human within digital systems as they execute a business process. The RPA system understands and manipulates the application and correlates it with other systems to perform the repetitive tasks.

The RPA market is growing steadily. There are companies already using this solution for extensive use cases throughout their organizations. According to Gartner, by 2020 automation and artificial intelligence will reduce employee requirements by 65% in business shared service centers.

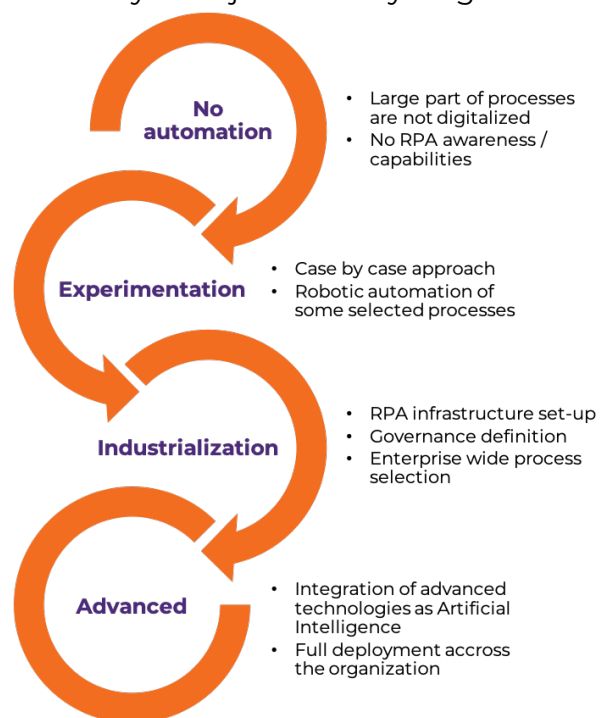
And the global RPA market will reach \$1.2 billion by 2021, according to a

study led by HFS. By that time, 40% of all large organizations will be using RPA solutions with a possibility of Artificial Intelligence and Machine Learning features.

A joint assessment by Arvato and AT Kearney found that RPA is set to automate 41% of finance back office processes within five years, and 53% within a decade.

Maturity in RPA adoption

Depending on the way the company adopts and implements RPA, we can identify 4 major maturity stages:



RPA Maturity Lifecycle

The prerequisite for launching a RPA is that existing processes are mainly supported by IT Systems. A process that involves a large part of manual processing (manufacturing and shipping) will be more difficult to automate.

Definition of RPA

The Institute of Robotic Process Automation's definition:

“Robotic Process Automation (RPA) is the application of technology that allows employees in a company to configure computer software or a ‘robot’ to capture and interpret existing applications for processing a transaction, manipulating data, triggering responses and communicating with other digital systems.”

RPA is a technology created to automate and integrate repetitive and time-consuming tasks. The objective of this technology is to allow human employees to spend their time on added value tasks and customer centric actions instead of on labor-intensive processes. By undertaking mundane tasks and carrying out structured processes automatically, RPA completes them faster and better than humans. In addition to increased productivity, these software robots also reduce human errors, decrease costs and improve quality consistency.

Of course, to be effective, all possible scenarios must be written down and integrated in the RPA to allow it to work with any possible criteria/variable.

However, exceptional scenarios will still need human intervention.

RPA may also include Cognitive Automation (well-known as SPA: Smart Process Automation) to fulfill

situational and decision-oriented tasks that are repetitive and manual. Those robots do not only execute workflows but also do more complex tasks thanks to machine learning (part of Artificial Intelligence) including Natural Language Processing (NLP), a sub-field of Artificial Intelligence. It allows computers to process, interpret and understand human language. It is used for investigative discovery (i.e. to find patterns in emails), trend discovery, social media analysis, or transcribing human voice into text.

Most of the RPA tools are implemented on .Net frameworks, thus using C#, F# and Visual Basic. Languages like Java, Lisp or Python can also be used to program RPA.

Thanks to RPA user friendly tools like UiPath or Blue Prism, limited coding skills are necessary, allowing RPA (but not SPA) to be accessible to a larger population.

To write down all scenarios, the IT and business departments must work hand in hand, to be certain to gather all potential scenarios. This fundamental task is time consuming, but must not be botched.

The software interacts like a human being on the user interface of a computer system. Being easily integrated, it can use any ERP, CRM, IT System and other applications by simply logging in. Robots are and sit alongside any other existing IT infrastructure, governed and controlled by IT.

RPA is assimilated as a human, it will interact with a software exactly like an employee would do; it just needs configuration, credentials, pre-defined rules and structured data, which can be done by business users.

The process flow and steps will be the same as the one an employee is following.

Stakes & Benefits

Companies have tried to find solutions in order to reduce costs and improve customer service and processing quality. RPA is one of the most efficient ways to reach these objectives.

This investment also delivers value on the short-term through processes automation and the possibility for employees to focus on higher added value tasks.

Return on Investment

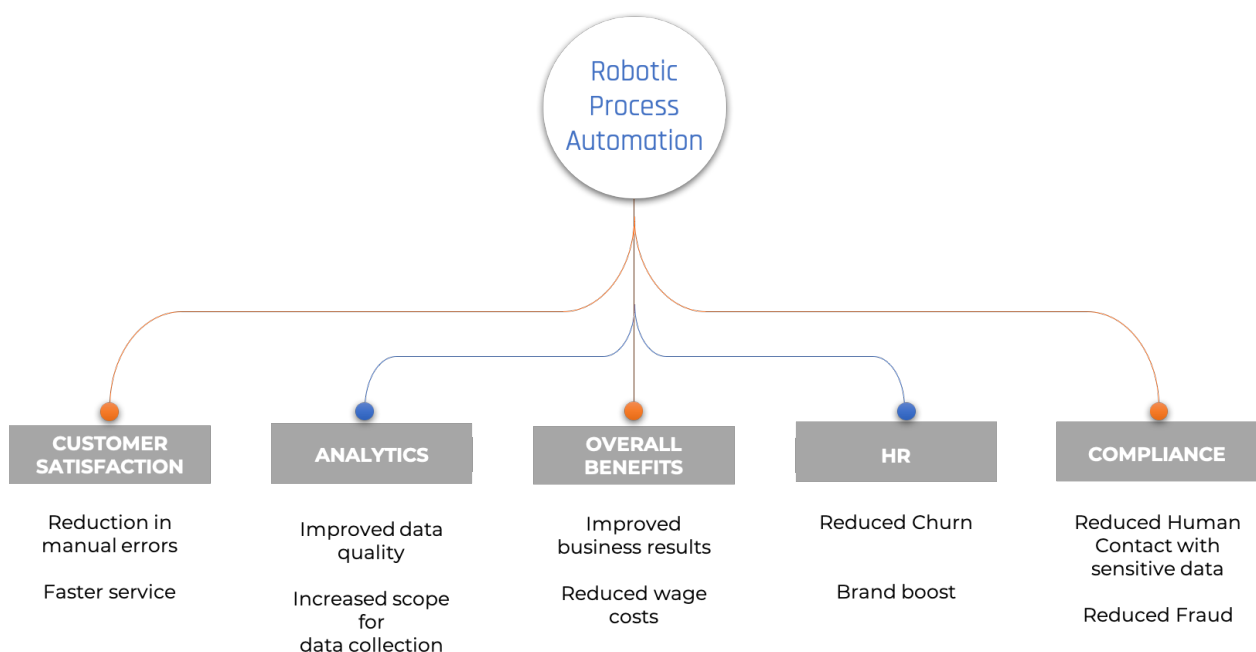
Robotic Process Automation offers the chance for businesses to achieve significant savings within a short period of time.

The cost in time and resources required to implement a RPA solution is significant, but the return on investment is high.

The initial cost of a RPA launch in an organization includes: license costs, hardware cost, training costs, and the costs to set-up of a new center of excellence.

Ressources optimisation and employee satisfaction

- Usually, as the robots handle the simple tasks, employees have more time to focus on the more complex and valuable tasks where human expertise is required. It will create more time for your staff to analyze and interrogate the data, understand it and spot trends that will help business growth. This resource reallocation is strongly valuable for the enterprise (more accurate decisions, decrease of process duration, and error reduction) and will provoke a fundamental modification in the skills required of your employees.



Source: appliedAI.com

Non-exhaustive list of RPA benefits

- As employees are dedicated to non-repetitive tasks where their expertise is highly valuable, their motivation level usually increases. Employees feel that they bring added value to the company and gain competencies that allow them to grow faster and gain access to more impactful missions. Employees will also have higher satisfaction and a sense of belonging. For the company, it is an additional lever of productivity gains.
- The global efficiency of the company raises: robots are more efficient than human resources for simple tasks. The execution duration of the automated process will decrease significantly.

Service Quality Improvement

Robotic process automation also has an impact on the final customer.

The fact that robots are usually operational on a 24/7 basis and reduce the risk of errors can lower the lead-time of the automated process, and induces a positive perception from the customer. Technical solutions (such as chatbots) can improve your customer satisfaction as well as company reputation.

Compliance

Using robots that are correctly designed may help meet the compliance requirements of a company.

Besides, as we said, using a robot reduces the risk of error. A correct RPA infrastructure may also reduce the risk of fraud by limiting access to the infrastructure and thus human interaction.

Analytics

The use of RPA tools allows a business to have automated processes that will manage the inter-applicative data in a structured way. Having a coherent

data management will open new doors to use the information in order to support the business.

Applications in the Financial Sector



The virtual workforce that represents RPA has already helped financial institutions eradicate many manual interventions in the execution of quests and decision-making, and has significantly improved operational efficiency.

More and more financial institutions are using this automation tool:

- At Société Générale, the RPA is gaining momentum. Initially it was deployed in India to automate the administrative processing of certain transactions using existing core systems, legacy applications, accessing websites, and manipulating spreadsheets, documents and emails to complete tasks. RPA is now introduced in France to take charge of the reconciliation of accounting operations. Reconciliation between the different parties, applications or

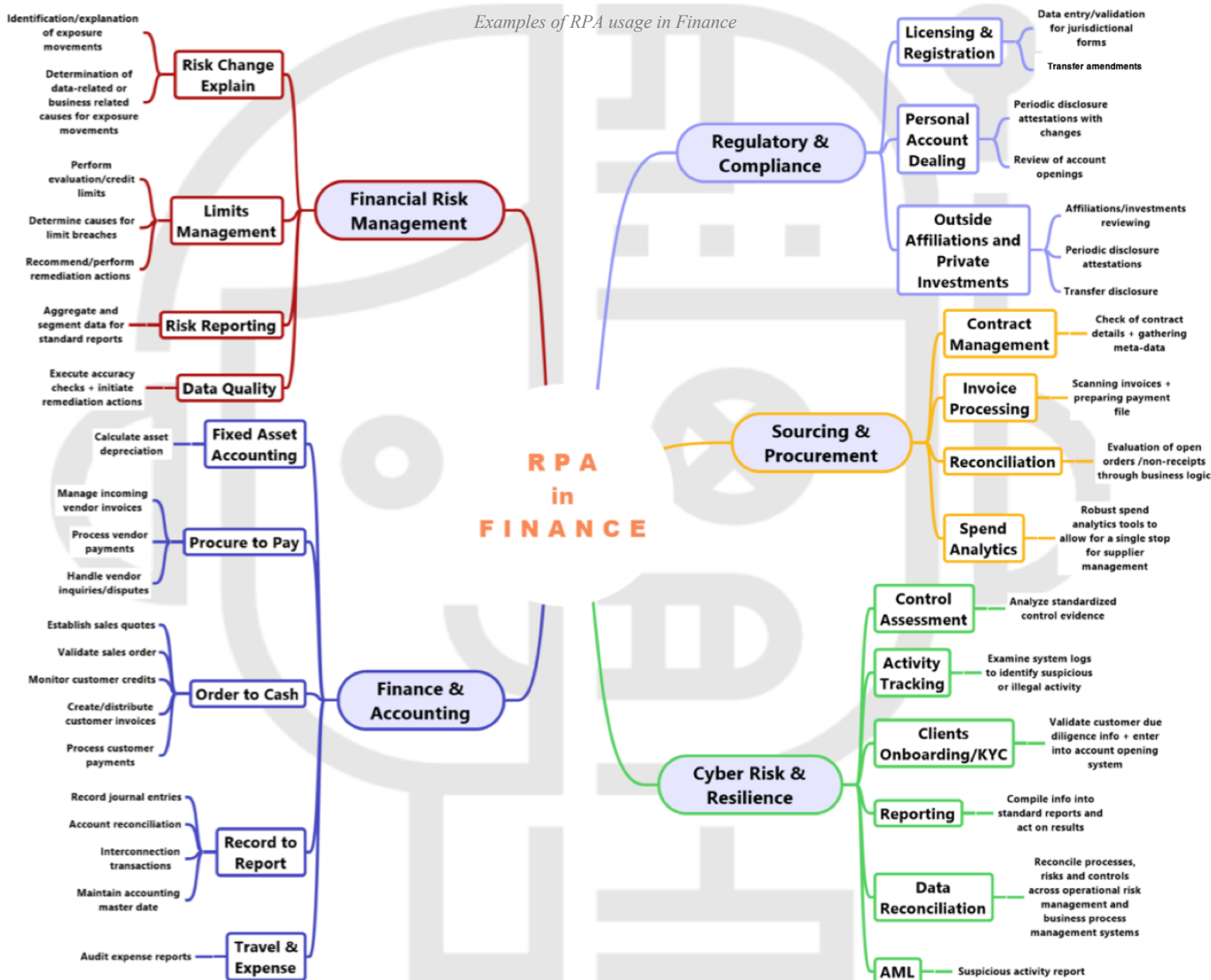
individual client reports is often quite a manual process. SG uses this RPA tool in the process in order to upload detailed data from various sub systems or to perform data validation and basic research for exceptions. Another usage is to create balancing journal entries to handle discrepancies.

- BNP Paribas Fortis has also made extensive use of robots in order to reduce back-office workload. From emails that are triggered by bank branch officers, the robot

exploits the data and interacts with the screens of the back-office systems.

For example, the commercial packages requested by the customer are handled by the robot. The RPA creates the financial products (accounts, insurance, and cards) included into the package

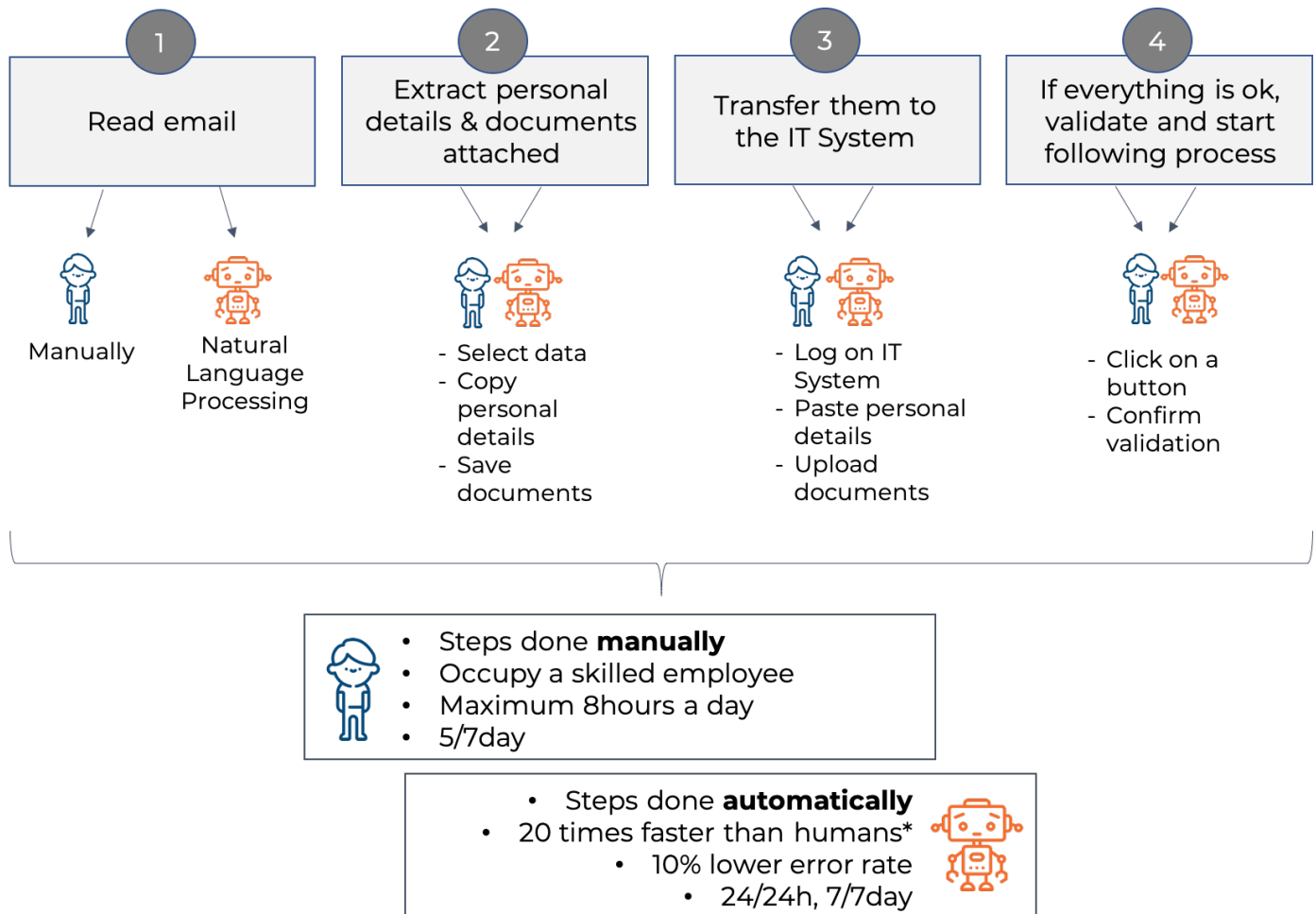
Here are other possible concrete examples that illustrate the use of RPA within the financial sector:



A concrete example: Credit back office – cash withdrawal

Typically, simple back office processes are good candidates for RPA implementation, as their applications are stable and their processes are under control and repetitive.

Let's consider the process of a supplier invoice payment in the context of a mortgage credit. The client sends the invoice by email to pay the bank (through a form on the bank website). The robot will execute this process in an autonomous way:



*Depending on the software, the device and the employee

Credit Back-Office process

Only in exceptional cases (i.e. an invalid account number, or when an invoice is not valid) is a human intervention required in order to decide the next steps and potentially interact with the client.

This automation allows a significant improvement in execution time, which results in benefits for both the bank and the customer.

How to launch a RPA initiative?

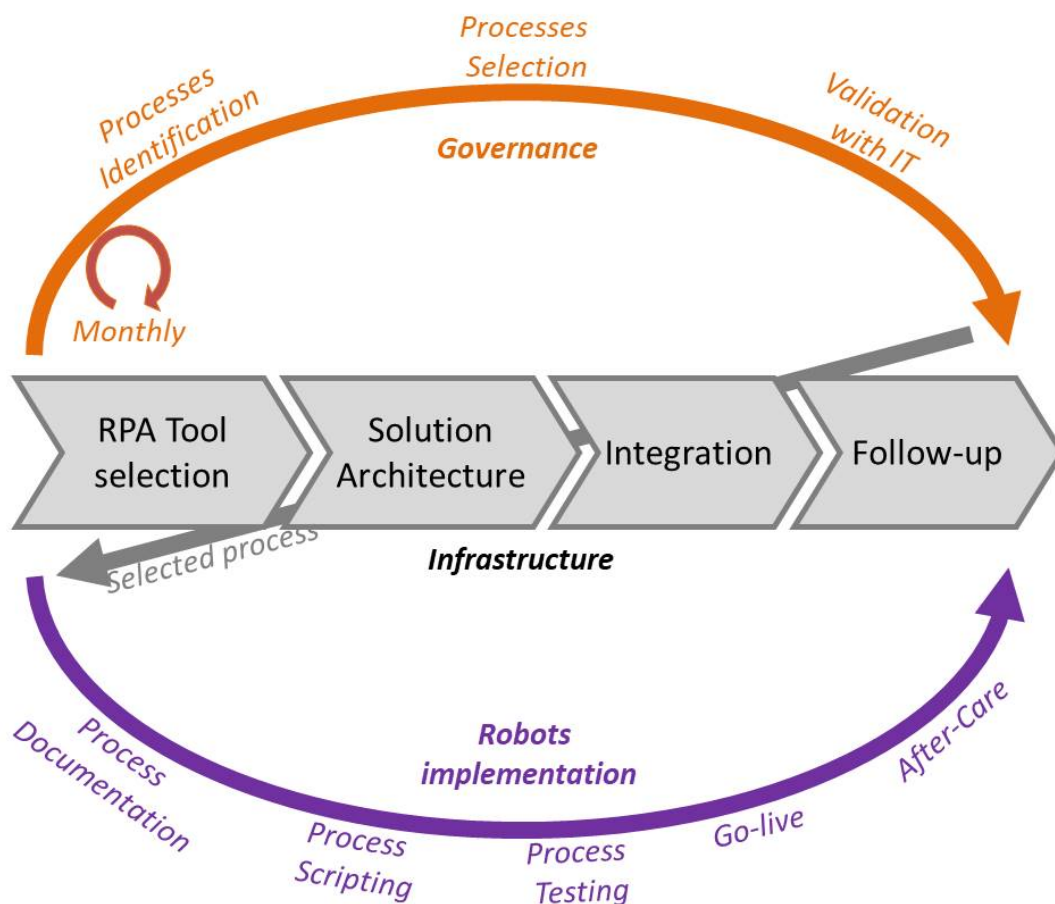
In order to have a successful RPA implementation, 3 tracks are required:

- **RPA Infrastructure:** the selection and the implementation of the RPA tool have to be done in alignment with the existing processes and standards. RPA software must integrate smoothly in the existing infrastructure. RPA has no vocation to trigger evolution of the existing landscape. This track is done only once, only

the monitoring task becomes permanent.

- **Governance:** The identification, assessment, and prioritization of the automated processes have to be integrated into global governance, including with various stakeholders (including IT). This is done on a recurring basis (typically monthly).
- **Robot implementation:** for each selected process, the robot is scripted by the RPA team. An up-to-date & detailed process documentation is required.

These tracks can be visualized in the RPA burger model:



RPA Burger Model

“

Michaël Köttgen



Head of E2E Process Change &
Accounts at BNP Paribas Fortis

“RPA allows the reduction of process lead time and employee workloads. The objective within the company was to increase the efficiency and offer a quicker service, leading to a better client satisfaction.

The back-office employees’ role significantly evolved from a mainly data encoding job to a client service approach. Indeed, the time saved allows the employee to be more reactive, have direct contacts with the client, and close their cases quickly. Thus, the employee's skills have to evolve with this new role.

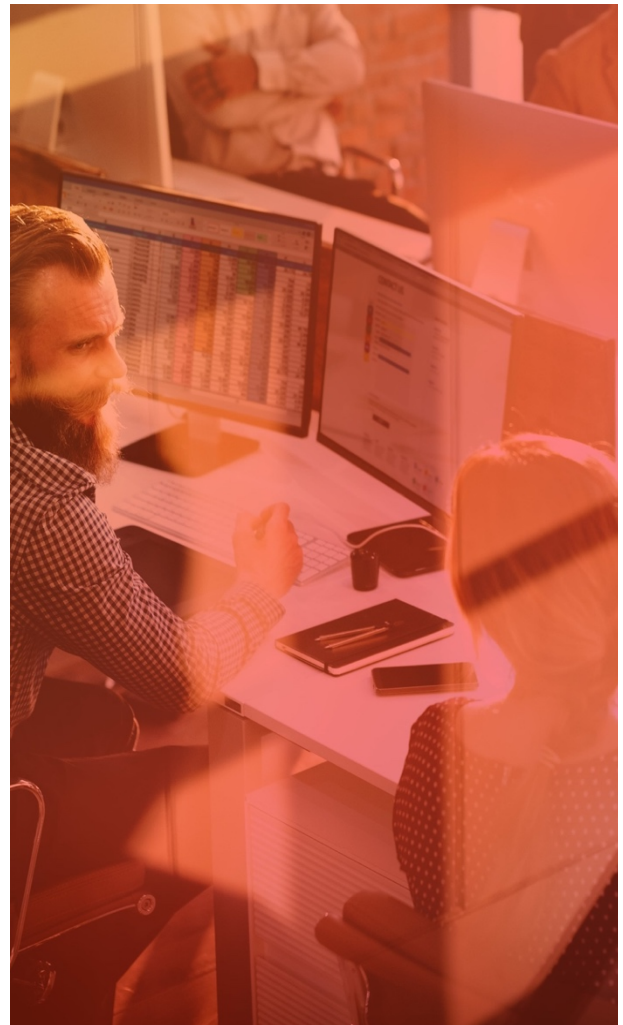
The bank has developed a communication plan in order to explain RPA to the organization and detail its expected benefits. Besides this communication, a dedicated training path organized by the bank allows the employees to acquire their missing skills in order to be comfortable with their new role.

Nowadays the employees themselves are proposing ways to automate processes in order to minimize their repetitive tasks. The teams consider the robots as one of their team, but

they remain accountable for the automated processes. In case of execution issues, the team investigates the root cause to find an appropriate solution.

From a more technical perspective, process automation is a new software development that is highly dependent on the IT systems used. A new version of a software, a change in the screens of an in-house application or updates in one of the websites used in the process could lead to a blockage or a wrong execution of the robot. This requires a full awareness across the organization to limit the risks and adapt quickly.”

”



Success Stories

At Intys Partners, we have already embraced RPA as a way to ease our processes.

In our Finance and Administration department we have implemented this for multiple tasks, from operational accounting (billing and collection, account payable) to administrative processes (follow up consultants' data, chatbot), planning, budgeting, and forecasting.

Of course, it was a challenge at the beginning to apply this change and combine the accumulated technical and practical knowledge. Once integrated, the results are great: the time saved has been invested in further analysis to highlight areas where costs can be reduced, allowing a better insight into the budget, a more accurate forecast, lighter workload and better management of the accounts receivable/payable.

Challenges

There are many challenges that go hand-in-hand with deciding to implement a RPA.

Management buy-in and support

Approval from the team and the executive is required when thinking about using robots to automate some processes. The executives may face hurdles when understanding the ins and outs of the system, and helping employees accept the changes.

At the start of the implementation project, the management has to fully support the initiative and needs to be able to provide a comprehensive approach on how it could benefit the company in terms of costs and labor evolution.

Local Support

A major issue when developing an RPA tool is finding a local resourceful specialized team. You will need to find reliable people in order to implement your device system properly.

Automation is not digitalization

RPA will contribute to executing processes in a shorter duration and with fewer errors, but they will not improve the process itself.

If an organization wants to deliver new digital processes, with online interactions with the end customer, a new IT development would be necessary in order to implement this process. RPA is not the solution for new processes; it works best for existing processes. Development of new straight-through processes should be built on classical IT technologies that don't require any RPA integration.

As a consequence, when considering the automation of a process, the company should have a clear view on how this process will evolve in the short-term. If a full digitalization requiring a strong IT reengineering is foreseen, RPA should probably not be taken into consideration for this flow in order to focus on the reengineering of the process.

Artificial intelligence usage

Classical robots are perfectly fit for the automation of processes that require a low level of human interaction and no specific expertise or cognitive capabilities. More complex processes (for example, requiring document analysis or NLP capabilities) cannot be fully automated with robots without any artificial intelligence features which limits the scope of processes that are eligible for RPA.



In order to extend this scope, Artificial Intelligence and SPA provide a cognitive capability that simulates the human way of working. This could be done through algorithms that apply human logic (if not too complex), or through real AI with machine learning from the human behavior. Of course, the implementation of SPA is more complex than RPA's and needs to be well-thought ahead.

Integrating RPA in the IT governance

In contrast to human users, robots are strongly bound to the applications used. Without any RPA adaptation, changes in these systems can lead to unusable robots. For human users that are facing changes in IT systems, we usually develop change management initiatives in the organization. For robots, this change management has to be strongly integrated with IT governance. This guarantees that IT application life cycle management includes robot management.

As robots are usually directly in the hands of the business, we recommend a mixed team of both IT & Business in the robot development and maintenance process. This will ensure a good integration of robot maintenance in the IT process.

Best Practices

To avoid the most common reason of failure (which is the fear of the department's disruption), a company needs to be sure that all departments are on board and "ready to be disrupted" in the name of the company's overall efficiency before they implement RPA.

To benefit the most from RPA, it is important to understand the

importance of creating a partnership between RPA and humans.

When well implemented, a RPA brings fast implementation, fast ROI, improved data compliance & security.

The banking sector is one sector where RPA implementation is the easiest and most natural. This is thanks to a large quantity of data, a lot of repetitive and process-based tasks, and operational management excellence.

A business case for the robots

As with any other project, robotic automation must have a clear expected return on investment. Launching this kind of project without a predefined business case will lead to over expectation or lack of visibility. On the one hand, the business case takes into account implementation costs, such as the licenses and the scripting effort, and on the other hand the expected benefits. For example, a staff reduction or a staff reallocation leads to more profits.

Ensuring the process flow is feasible and efficient

During the elaboration of the RPA strategy, it is essential to verify that the tasks involved are: repetitive, manual, structured and logical. The process flow then has to be clearly identified and mapped down. It is important that this flow is validated by different levels within the company, including the IT team, the Business Analyst, and the team that were previously doing the task in question. For the success of the RPA elaboration and implementation, IT and Business must be involved at an early stage; the business objectives need to be clarified and the IT team must check if all of the intentions are implementable and the process easily automatable.

(Internal) communication and training are key

The introduction of robots in the company may be viewed negatively by employees. They may wonder, “What impact will this have on my job? My evolution in the company? Will I be fired soon?”

In order to manage these employee concerns, the management must launch a strong internal communication plan in order to explain and inform them on the goals of the RPA in the company. They must clarify the impact on the employees and explicitly state the prevision of staffing evolution. The staff must be provided with the information they need to understand what RPA will mean for them, their work, and their colleagues’ jobs.

It is also crucial that they are trained on their new mission in order to embark on the process. This is a key success factor in the adoption of RPA in any company.

On the management side, all managers must also be trained, as their mission will evolve too: their teams will become partly physical and partly virtual workforces. They need to be prepared for the changes this will entail.

Taking care of the process documentation

When the strategy and goals are validated, the processes to be automated must be closely analyzed and documented.

A mature company with a history of process documentation clearly has a competitive advantage in order to ease the implementation of a RPA into the company.

Testing and maintaining

Once the robots are scripted, the next step is to carefully test the implementation of the robot. All scenarios must be taken into account,

tested and evaluated before the RPA goes live.

Once the robot is released in production, it is important to put a dedicated control center into place until the RPA is perfectly stabilized. Even after this stabilization, data quality issues may still appear and be resolved “on-the-go,” to avoid any RPA process blockage.

Making the Robot a team member

Finally, the robots are part of the company and their actions must be known and communicated to other staff members. It is thus important to create a report system for different departments to be aware of the robot’s work and feel the advantage it brings. The company needs to realize that robots are additional resources that reinforce the team workforce.

Strategy & application

- Business case
- Process flow map down

Internal adaptation

- Communication
- Trainings

Preparation & implementation

- Data structuration
- Process creation
- Tests

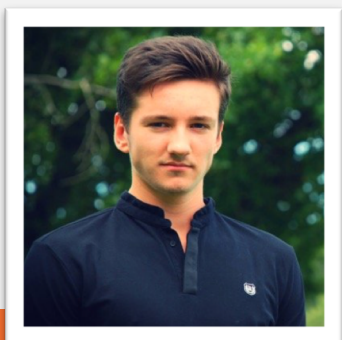
Maintenance

- Data management
- Reports

RPA Implementation flow



Jordan Van Eetveldt



Our Intys consultant on a mission
for an international bank.
Master's Degree – ULB.

"More and more companies wanting to start or deepen their digital transformation are turning to RPA in order to automate burdensome, high volume and time-consuming back office activities. For example, Intys wanted to automate their financial reports, which were previously done in Excel, in order to automatically and clearly group all the financial data in an interactive dashboard. I implemented this initiative with Tableau software directly connected to financial data stored in a OneDrive. In the financial sector, for an international bank, I am working on the implementation of a data governance tool. Every day, employees of this bank need to ensure that data are available, have been well processed the day before and that old data have been correctly archived. This tedious and time-consuming check was done manually. Now a simple checking in a dashboard can directly identify a problem and its source."

Tools

There are a lot of tools available for creating and implementing RPA. Here are the most famous ones:



- UiPath: free, fully featured and user friendly, it requires very little coding knowledge thanks to its "drag and drop" workflow.



- BluePrism: designed in a multi-environment deployment model, it is capable of automating all the applications and is specialized in back office RPA.



- Automation Anywhere: allowing more smart workflows, it needs better programming skills than the other tools ("developer friendly tool").

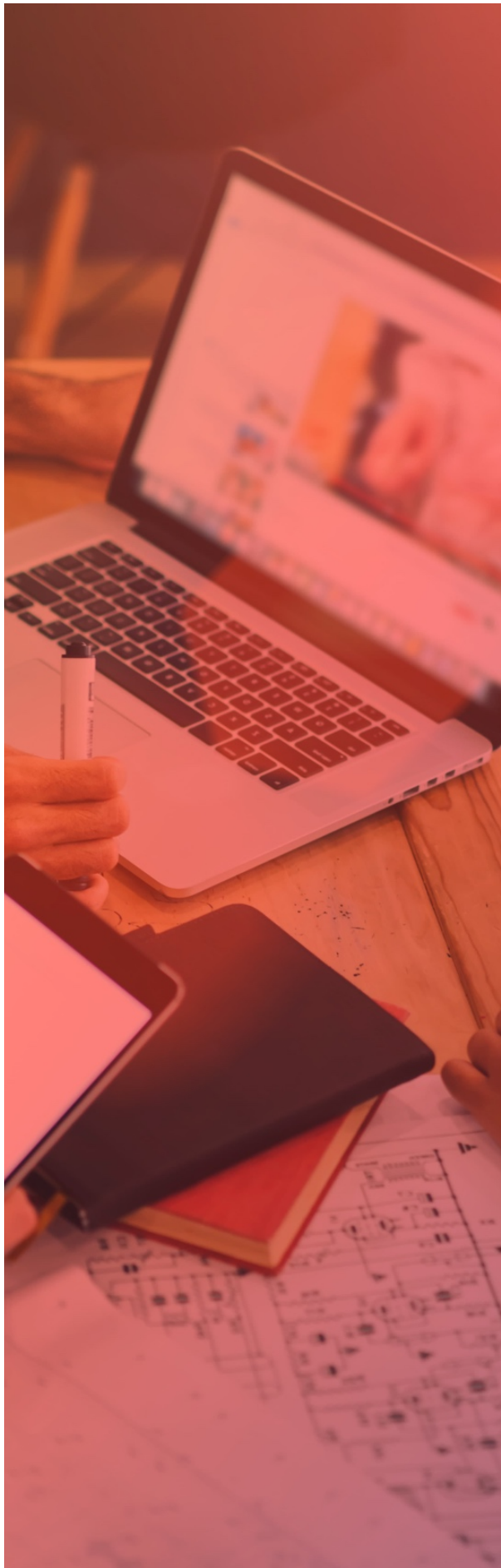


- WorkFusion: using machine learning, it automates more repetitive tasks over time and allows SPA.



- Pega: largest pure-play RPA tool vendor, it supports all usage scenarios and has a "drag and drop" workflow.





Conclusion

Businesses are actively engaged in implementing better business process automation and delivering sophisticated customer experiences. For a typical large company that brings together hundreds of computer systems, such an application would require significant behind-the-scenes work.

Fortunately, RPA allows the integration of these technologies and the orchestration of the execution of the automated processes.

This polyvalent automation solution gives a wide range of opportunities to have better control over your business while reducing costs and time spent on repetitive tasks.

Nevertheless, it is important to implement a clear strategy during the RPA implementation phase, have a clear internal communication strategy, and focus on the most cost-saving processes.

With the latest regulatory updates applied in the financial sector that will continue to transform the industry, banks have already understood that RPA can help them achieve their compliancy goals, while reducing internal errors.

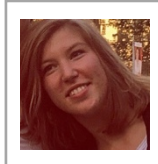
As we mentioned earlier, RPA initiatives will continue to capture the market in the years to come. We can expect that more modern robotic solutions (including NLP, OCR & AI) will continue to grow and will be adopted across the financial industries. The organizations that are successful in scaling RPA are best positioned to advance and grasp the benefits of enhanced and cognitive automation solutions, as well as to gain a strong competitive advantage.

Intys Data

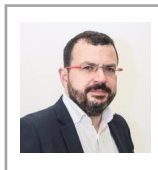
Intys Data is a company dedicated to guiding customers leverage their digital transformation. We support our clients to reinvent or grow their business by combining data-driven technologies with a lean driven approach.

www.intys-data.eu

Gabrielle Jullien
Business Manager
Gabrielle.jullien@intys.eu



François Bordes
CEO at Intys Data
Francois.bordes@intys.eu



Intys FSA

At Intys Financial Services Advisory (FSA), we combine a broad industry expertise with a specific set of tools and methodologies to better address our clients' challenges. We strive to offer tailor-made solutions to our clients aiming to boost their performance, develop a vigilant responsibility policy and take advantages of innovations.

www.intysfsa.eu

Jérôme Meudenaer
Senior Business Manager
Jerome.meudenaer@intys.eu



Grégory Andries
CEO at Intys FSA
Gregory.andries@intys.eu



Members of Intys Partners.



Intys Data & Intys FSA combine their expertise in order to guide you in the introduction of RPA in your company. From the initial business case to an industrialized implementation through your organization, we will help you take the right decisions and make your process automation a successful and profitable journey.

NOTES

A hand holding a black stylus points at a tablet. The tablet screen shows various data visualizations, including a bar chart, a pie chart, and a line graph. The background is a blurred office setting with a desk and a laptop. The image has a warm, orange-red color cast.

Intys Insights
Robotic Process Automation
2019

Intys Data
Avenue de Tervueren 270,
1150 Brussels

Intys FSA
Avenue de Tervueren 270,
1150 Brussels