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A step towards automation: Exploring the migration of French local governments towards Robotic Process Automation tools on their administrative processes

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Abbreviations

ADM	Automated Decision Making
AI	Artificial Intelligence
BPA	Business Process Automation
BPM	Business Process Management
CEO	Chief Executive Officer
DINUM	Direction Numérique
EU	European Union
EY	Ernst & Young
GDPR	General Data Protection Regulation
IEEE	Institute of Electrical and Electronics Engineers
IT	Information Technology
MRFR	Market Research Future
OCR	Optical Character Recognition
POC	Proof of concept
ROI	Return On Investment
RPA	Robotic Process Automation
US	United States
USD	United States Dollars

1 Introduction

Over the last three centuries, the various industrial revolutions have profoundly transformed the way humans work (de Vries, 1994). The concept of automation is familiar since the first industrial revolution and has been the object of multiple speculations, both scientific and popular, about its impact on our society. Although automation aims to apply improvements of our way of life, its adoption may also bring its share of risks (Perez, C., 2010). Automation requires a true adaptation to the changes it brings, both on our institutions and our social interactions. Driven its possibilities, the automation of tasks has accelerated while creating a strong fear in humans as the image of a robot coming as competition. Far from it, an adoption of automation could bring more opportunities for humans to assist them in accelerating their objectives. Therefore, it is up to organizations and individuals to guarantee a successful adoption of the tool.

> *" The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency." —Bill Gates (n.d)*

This quote might be an old one but it seems to still preserve strong insights in the rise of Robotic Process Automation (Robotic Process Automation).

Today, a fourth industrial revolution is shaking up organizations through the arrival of key technologies such as Artificial Intelligence (AI) and Business Process Automation (BPA) (Madakam, S, 2019). While private organizations have already experienced a strong upheaval with the arrival of these automated processes in their businesses, public administrations are still shy on its use (Adamczyk W., et al., 2021). With the recent arrival on the automation scene of Robotic Process Automation tools, opportunities for assisting public administrations processes have been pointed out by researchers and practitioners (see Houy, C. et al., 2019; Lindgren, I. et al., 2020; Juell-Skielse, G., et al., 2022). Indeed, this technology could provide a solution to the administrative burden of public servants, supporting them in routine tasks and improve the overall efficiency of administrations processes. In the face of so many opportunities, it seems interesting to observe how public administrations have taking up into this new technology into their projects of transformation.

1.1 Robotic Process Automation, key technology for the future world of work

As technology has taking up the world, public administrations are also trying to embrace those new tools through a strong digital transformation of their internal processes. In this context, automation appears as a key aspect of the modernization and digitalization of public administrations and their processes (Houy, et al., 2019).

Recently, there has been a strong interest in industry in a specific area of automation: Robotic Process Automation (RPA). At first sight, the term "Robotic Process Automation" would give a vision of rows of physical robots replacing humans by performing their tasks repeatedly. However, RPA indicates a method to automate recurring activities of screen work (Houy, et al., 2019). As a combination of AI and automation, it supports, on a broad range of approaches and technical concepts, the automation of repetitive activities and routine work processes in organizations. While the use of programmable Robotic Process Automation bots in business processes is not new, the potential of cognitive Robotic Process Automation bots could profoundly transform administrations (Eikebrokk, T., & Olsen, D. 2019). Its software-robots would be able to use large amounts of data to facilitate automatic execution of certain processes by AI. Notably by copying observation, adaptations, and executions of human behavior. The potential opportunities of this tool into the internal organization of public administrations are numerous (Eikebrokk, T., & Olsen, D. 2019).

Robotic Process Automation is considered as an uncomplicated form of AI (Anagnoste, 2017). RPA is defined "A preconfigured software instance that uses business rules and predefined activity choreography to complete the autonomous execution of a combination of processes, activities, transactions, and tasks in one or more unrelated software systems to deliver a result or service with human exception management" (IEEE Corporate Advisory Group, 2017). It is encouraged to be adopted by organizations for cost reductions, flexibility, increased speed and resource utilization, improved service capabilities and quality (Marshall and Lambert 2018).

A Trecend report projects that, only after the mobile internet, the automation market will have the second-largest economic impact (Ostdick, 2018). The private sector has been the main recipient of the RPA technology revolution. Private companies that successfully developed efficient business processes and utilized RPA have seen improvements in their strategic goals, employee productivity, and customer service. RPA is especially appealing to businesses that are often quick to adopt new technology. It is expected that there is a substantial increase in demand for RPA technologies. Yet, Dilmegani, Korkmaz, and Lundqvist (2014) claim that many organizations still need to make significant progress before they can fully reap the benefits and potential repercussions of adopting digital technologies.

1.2 A necessary revolution across the public sector

The promise of this new technological tool is already receiving attention from governments within the European Union. In 2019, the European Parliament adopted a report outlining a comprehensive European industrial policy for AI and robotics (Committee on Industry, Research and Energy, 2019). They specifically recognize the utility of RPA and its impact on improving public sector processes. While many government agencies are accused of being slow and bureaucratic, RPA could enable

government agencies to be more efficient in performing repetitive tasks more than 50 times a day. Deloitte (2020) has predicted that RPA could help reduce administrative workload by over 110,000 hours. RPA could become in the future compulsory as a part to do administrative operations in a public organization.

This opportunity seems to be coming at the right time, since administrations have started to strongly accelerated the digital transformation of administrations since the global Covid-19 pandemic. Its consequences have led to a reflection on the management of administrations and the new growing interest in the use of technological tools (Dickinson, H. et al., 2021). However, its transformations worry some researchers about its consequences on the delivery of public services to citizens. Indeed, public administrations often aim to respond to 4 pillars: economy, efficiency, effectiveness, and equity (Norman-Major, 2011). With that in mind, the work produce by the public sector must pay a particular attention to all four of the essential values (Borry et al., 2019). Beyond the benefits of the tool, each administration must ensure that the transformation undertaken by its management does not impede public values. The role of the manager is therefore central to balance technical and social concerns due to the implementation of the new technology. Office automation processes need therefore to be adapted to and fitted in with the preexisting organizational culture of public sector agencies (Dunleavy, P et al., 2006).

The implementation of RPA in administrative processes follows this path by intensifying the automation of its tasks such as data integration or transformation and process integration (Houy, 2019). The technology requires a precise adaptation of the processes used by the administration in its pursued objectives, resources, and constraints. Reengineering its end-to-end processes may differ fundamentally depending on previous public management regimes with radically different service delivery models (Dunleavy, P et al., 2006). The arrival of the RPA tool therefore comes at a time when these administrative organizations are becoming more aware of the use of technological tools and the potential need to adopt digital-era governance (Dunleavy, P et al., 2006).

RPA are gradually reshaping public administrations. Those transformations are affecting more than any entities local governments as they are responsible for organizing and implementing the main part of public services in most countries (Lindgren, I. et al., 2020). In this context, politicians, and high officials are strongly encouraging local governments to take the lead on the matter. In France, this adoption by the public sector seems to be in its infancy. Indeed, the central government established in its 2019-2022 roadmap to "Accelerate the digital transformation of the public sector," notably through the investigation if the use of new technologies by government agencies like Robotic Process Automation (Ministry of Public Transformation's, 2019). Furthermore, an Appian study shows that in 2022, "80% of public sector decision makers in France rank process automation as a high priority for their organization" (Appian, 2022).

Research in the area of the implications of RPA technology in local government administrations is a recent topic that has notably accelerated during the year 2022 (See; Lindgren. I., 2022; Andersson, C., 2022). However, it must be noted that most of his research focuses mainly on case studies in Sweden and does not give any perspectives of a different cultural and social context to the scientific research field. Although all agree that local governments are particularly targeted by the implications that RPA could have in the public sector, the lack of nuance in the research produced leaves a call for further investigation to validate or refute its initial observations (See; Lindgren. I., 2022; Andersson, C., 2022, Söderström, F, 2022)

1.3 An upcoming adoption of Robotic Process Automation by local governments

Technological change has been a major factor in transforming the public sector during the recent years, improving in many ways the public values set in government processes (Flak, Eikebrokk & Dertz 2008; Pandey & Gupta 2017; Watson & Mundy 2001).While the adoption of RPA by private organizations is well studied in the scientific literature, still too few researchers are interested in its arrival in the public sector (Lindgren, I., 2020), especially when it comes to adoption by a local government. Over the past several decades, a significant body of research has been imported from other disciplines, in an attempt to explain why a certain technology is (or is not) adopted in the workplace. But the decision of whether an organization will adopt a particular technology is difficult to apprehend as so many diverse factors can influence this decision (Straub, 2009).

Following the idea that adoption is made by a change of behavior (Straub, 2009), it seems important to research how public organizations are drawn to embrace change and adopt new technologies into their organization. As Robotic Process Automation seems to be driving a new revolution across the public sector, it seems important to have a look on how local governments are managing the expectations of this partnership.

Therefore, the main research question for this study has been formulated as follows:

1) What factors have influenced the adoption of Robotic Process Automation technology by French local governments in their administrative processes?

In order to understand this phenomenon, our approach will follow a reasoning of migration on the part of the public entity from a manual operation of tasks of administrative processes to a chosen transformation towards an automation model of these processes (Söderström, F., 2021). Therefore, research will be pursued across the local governments in France to investigate organizations who already started their

automation transformation. Their perspective will be completed by the ones of suppliers and developers' firms as they are usually highly involve into the digital transformation projects of public administrations. To put in perspective the results of this inquiry, we will use the Push-Pull-Mooring (PPM) framework to evaluate the different factors that may lead to this choice (Söderström, F., et al., 2021; Grace and O'Cass, 2001; Wieringa and Verhoef, 2007; Bansal et al., 2004). This framework seems to be particularly relevant as Robotic Process Automation is relatively a new phenomenon for local governments and it has already been used by previous researchers on the same topic (Söderström, F., et al., 2021).

The administrative system of France will be at the heart of this.

To explore and analyze potential impacts of Robotic Process Automation, this research, by the use of case study, will bring interesting insight and real-life demonstration to the opportunities and challenges Robotic Process Automation put on local governments to adopt it. This research will contribute in the enrichment of the current literature on adoption and implementation of Robotic Process Automation and automation in the public sector. Finally, this thesis will aim to deliver recommendations for public managers on potential opportunities and threat in the adoption of a Robotic Process Automation solutions by local governments

2 Literature review

A review of the existing scientific literature will be conducted in order to understand the subject that we are aiming at studying.

First, we will try to give an appropriate understanding of the Robotic Process Automation technology and the revolution of automation its surround itself with (2.1).

Then, we will observe how local governments have so far adopted automation by having a look at adoption theories and stakeholders' roles into this (2.2).

Finally, we will explore under which angle researchers have been exploring the benefits and challenges of Robotic Process Automation in the scientific literature (2.3).

2.1 Robotic Process Automation, a tool to enter the world of automation

Robotic Process Automation has been described as the fastest growing group of digital transformation tools by IT markets (Wadhawani, P., & Prasenjit, S., 2020). Heir to the evolution of process automation begun during the twentieth century, its technology manages to change our way of working if it succeeds in being understood and used wisely by its administrators.

2.1.1 The revolutionary road of automation

Robotics and automation have always been part of the human evolution. Indeed, humans have always attempted to improve the efficiency of labor processes, using a variety of instruments to do so (Lacity and Willcocks, 2016, Hitomi, 1994). However, in recent decades, technological advancements have rose so quickly that they imposed severe changes across organizations (Dodel, M., & Mesch, G. S. (2020).

But first, we must ask ourselves what do we mean by automation? According to the Cambridge Dictionary (2022), automation is defined as "the use of machines and computers that can function without the need for human control." In the scientific literature community, Parasuraman and Riley (1997) define automation as "the execution by a machine agent (usually a computer) of a function that was previously carried out by a human". This definition has been supported and reused by the scientific literature (e.g Larsson, 2015; Tool et al. 2022; Lindgren et al. 2021; Wickens et al. 2013). Yet, to further expand on this definition, the researcher Hitomi (1994) provide an interesting distinction

with a *factory automation* from an *office automation*. In the case of *factory automation*, Hitomi (1994, p. 123) refers to it as the “flow of materials” where mechanical automation or process automation is directly concerned with the production processes. Whereas *office automation* can be defined as the "flow of information" and involves the management and control of productive activities (Hitomi, 1994, p. 123). (Hitomi, 1994, p. 123). Furthermore, Hitomi (1994) asserts that D.S. Harder originated the word "automation" in 1936, defining it as "the transfer of work elements between machines in a manufacturing process without the involvement of a human being." According to the aim of this thesis and the distinction in the literature, this thesis will use Hitomi’s (1994) definition of automation as an *office automation* as it seems more relevant for its implication in the public sector.

The introduction of automation has had a substantial and enduring effect on the labor market, providing assistance to workers in their daily duties. But more recently, it is the realm of cognitive processes that have been at the center of new wave of transformation with the introduction of automation solutions as decision-making, planning, and innovative problem-solving (Eisanen, M. 2019).

The evolution of automation is described by Davenport and Kirby (2015) into three main eras. The first era, called Automation 1.0, started in the early 19th century with the first industrial revolution and the invention of machines powered by water and steam. This automation led to improve the mechanical production in big industries by permitting a more efficient and less cost-effective production process. This first era permitted for workers to be replaced from hard and dangerous manual labor. During the first half of the 20th century, a second area started with Automation 2.0. This area marked the revolution of the working world by introducing mass production, the assembly line and electricity. Machines relieved workers from their routine service transactions and clerical chores with the introduction of new technologies. Despite the fear of job replacement, opportunities were also created for workers as machine operators and technicians. Finally, the third era Automation 3.0 has arrived recently in the 21^{rst} century with information technology and computerization. Organizations and workers are confronted with the integration of digital technologies as robotics, artificial intelligence and machine learning, enhancing strongly their efficiency and productivity. Humans are confronted with machines faster, more reliable and making better choice than them (Davenport and Kirby. 2015; Eisanen, M. 2019).

Yet, automation is predicted to have a strong impact on the way labor will be conducted in the future (Lacity and Willcocks, 2016). To better understand its effects on a public sector organization, Stirling (2017) proposes a taxonomy of automation level for public

sector application. This taxonomy indicates not only the stage in which automation is used but also what roles automation may have (Eisanen, M. 2019).

Level 0	No automation – People powered public services
Level 1	Simple augmentation – Data entry, processing, identifying clusters of activity, profiling e.g in fraud detection
Level 2	Close supervision – Routine administration of systems e.g. energy networks with difficult decision referred to a human
Level 3	Semi-autonomous – Computers monitoring and running e.g a regulatory system
Level 4	Automation – A public service runs itself unless it hits an extreme case where it requires human intervention
Level 5	Fully automated system which never requires human intervention

Source: Stirling. R. (2017)

Figure 1 Five Levels of AI in public service

This new possibility of automation given by the new technologies nevertheless opposes scholars, who disagree on its impact across organizations.

To summarize, automation has progressed through time and moved from primarily doing physical labor activities through the use of a hardware robot (such as manufacturing machines) to performing more complicated and mental tasks through the use of a software robot (such as artificial intelligence).

2.1.2 Robot, a machine to recreate humans

The interaction between a human and the machine has been explored since a long time. René Decartes (1596-1650), a French mathematician, physicist, and philosopher, was the first to propose a clear distinction between mind and body, also known as mental substances and bodily susbtances, according to O'Regan (2016). Decartes was the first to propose a clear distinction between mind and body. This distinction has remained extremely relevant in the context of artificial intelligence. Indeed, it provided an analogy between the mind and artificial intelligence as well as the body and

computer/software/program. The human mind would appear to be an artificial intelligence program running on a computer, similar to that of a robot, whose knowledge is acquired through sense perception with sensors and logical deduction. After that, O'Regan writes:

> *" The significance of Descartes in the field of artificial intelligence is that the Cartesian dualism that humans seem to possess would need to be reflected among artificial machines. Humans seem to have a distinct sense of 'I' as distinct from the body, and the'I' seems to represent some core sense or essence of being that is unchanged throughout the person's life. It somehow represents personhood, as distinct from the physical characteristics of a person that are inherited genetically. The long-term challenge for the AI community is to construct a machine that (in a sense) possesses Cartesian dualism: i.e. a machine that has awareness of itself as well as its environment. (O'Regan, 2016, p. 254)*

But the interaction of humans with robots is a phenomenon that can be traced back to the middle of the 20th century (Fong et al., 2003). However, this relationship has changed significantly since then due to the increasing ability of robots to become autonomous and copy human manual but especially cerebral work more and more perfectly. In the face of technological evolution, Laengle et al (1997) argue that it is no longer necessarily a question of excluding humans from the processes but of returning them to less repetitive tasks that require more flexibility and agility according to their environment. Indeed, the more a robot becomes capable of predicting and acting efficiently in an environment it masters, the more the human will be necessary to make up for its deficit in case of unexpected events or risks. The two entities would then combine to leverage the abilities of both the robot and the human (Harriott et al., 2015).

According to Brady (1985), for there to be a connection between robotics and intelligence, artificial intelligence needs to play a pivotal role in the field. A robot can be defined as " an electromechanically designed machine, programmable by a computer and capable of carrying out a complex series of actions automatically. A robot accomplishes tasks by moving into the real world" (Madakam, 2019).

There are two categories of robots: those that do not require human supervision – *Unattended* - and those that do – *Attended*- (Hofmann, et al., 2020). This necessary distinction comes to question what the role of the man towards the machine will be. On one hand, *unattended robots* can operate either locally or remotely, with no user input or assistance needed (Hofmann, et al., 2020; Larsson et al. 2015). This could mean that the workforce will not have to focus on the daily activities but mostly prevent potentials drawbacks from the machine s output. On the other hand, *attended robots* typically run on a user's personal computer, and require their active participation in certain aspects of the task, such as initiating the process, making decisions, or providing necessary credentials (Hofmann, et al., 2020; Larsson et al. 2015). Throughout every stage of the

process, man is an indispensable participant. This strategy ensures greater safety and reduces the risks associated with the robot output because it is involved from the very beginning in the data that is given to the machine (the input).

The industry of robotics has been thriving over the course of the past ten years, and it has no plans to slow down during the sequel. As a result of the increasing availability of robots that are both cost-effective and energy-efficient, the size of the global robotics market is projected to increase by 214.68 billion U.S. dollars by the year 2030, as stated in a comprehensive research report compiled by Market Research Future (MRFR).

Artificial intelligence will be at the center of the development of robots in the future, which will stem from the idea that robots will one day take over the manual labor of factory workers. The robots will use wireless networking, big data, cloud computing, statistical machine learning, open-source software, and other shared resources to improve their performance in a wide variety of applications. Some of these applications include assembly, inspection, driving, warehouse logistics, caregiving, package delivery, housekeeping, and surgery (Kehoe, B. et al., 2015). The introduction of these augmented robots has already marked and will continue to mark profound transformations in the ways that we work and live our lives. After that, this optimization of life needs to be thought about and accompanied in order to ensure a smooth and equitable transition in the organizational structure of our society.

2.1.3 An ever-ending objective to optimize processes

A process can be seen as the conversion from input to output. Everyone is familiar with the term "process," which is often associate it to the day-to-day lives and general activities that are widespread across all industries. It is an activity that is performed to accomplish task completion, and it is an essential component of any system or company. The process takes inputs from a variety of devices or people and is carried out in accordance with the rules that have been predefined in order to produce the desired output. However, the amount of time it takes, the costs that are incurred, the amount of manpower that is necessary, and other quality parameters differ from one process to another. It is in this context that the quest for eternal process optimization drives researchers and entrepreneurs to develop ingenious solutions to get closer to it. The ever-shifting needs of consumers, combined with the consistently accelerating progression of information technology, have been a significant driving force behind the development of contemporary management practices that make extensive use of various IT applications (Siderska, J., 2020)

The multidisciplinary field of business process management (BPM) enables the management of business processes through a combination of modeling, automation, execution, control, measurement, and optimization. Business activity flows (workflows), systems, and individuals like employees, customers, and partners both inside and outside the enterprise are all part of BPM (Chakraborti, T., et al., 2020). Business process automation (BPA) automates the management of pertinent information and data, team member time, and execution logic in order to increase the effectiveness of business processes in terms of cost, resources, and investment (Chakraborti, T., et al., 2020).

However, the optimization of this process raises questions about its ethical implications, particularly regarding the removal of the human element from the decision-making process

"Many decisions that used to be made by humans are now made by machines"
(Waldman, A. E., 2019).

The application of automated decision making (ADM) has seen a significant rise in the public sector over the course of the past few years (Kuziemski, M., & Misuraca, G., 2020). When ADM is used in the service of public administration, the objective is to produce a decision that involves the exercise of public law in a manner that defines, for an individual or for a private legal entity, a particular right, duty or benefit on the basis of material legislation (M. Suki., 2020).

Because of this, humans have been notably removed from the decision-making process, and there is now an urgent requirement to meticulously frame the outcomes produced by the autonomous algorithms (Waldman, A. E., 2019). The legislative industry faces a significant obstacle in the form of these tools as a result of the significant challenges involved in regulating them (M. Suki., 2020). Particularly due to the opaque nature of the algorithms and the influence those algorithms have on the decision-making process.

2.1.4 But what is Robotic Process Automation ?

The continued development of technology has resulted in the emergence of a new subfield known as robotic process automation. Far from the caricatured vision of a physical robot performing the tasks of a human in the workplace, Robotic Process Automation is a software-based solution. Robotic process automation or RPA, can be defined as RPA is defined "A preconfigured software instance that uses business rules and predefined activity choreography to complete the autonomous execution of a combination of

processes, activities, transactions, and tasks in one or more unrelated software systems to deliver a result or service with human exception management" (IEEE Corporate Advisory Group, 2017). This makes use of the capacity of software robots or workers driven by artificial intelligence to simulate human interaction with the user interfaces of software systems (Bernd W. Wirtz, Jan C. Weyerer & Carolin Geyer., 2019). RPA aims to provide the quickest path to automation investment by introducing a user interface automation layer rather than directly interacting with the system, database, or application code that are hidden behind those applications and streamline the automation journey of organisations (Chakraborti, T., et al., 2020).

In the context of business processes, the term "Robotic Process Automation" (RPA) most frequently refers to the process of programming a software "robot" to carry out the tasks that were previously performed by people. RPA software is ideally suited to replace humans for processes that are known as "swivel chair" processes. These are processes in which humans take inputs from one set of systems (for example, email), process those inputs using rules, and then enter the outputs into systems of record (for example, Enterprise Resource Planning (ERP) systems).

Robotic Process Automation differs from the tradition automation services in that RPA does not completely remove the tasks being automated but instead perform the task by replacing human worker with the robotic system (Santos, 2019). Indeed, traditional automation usually is performed for cases with a high frequency while workers are left to perform low frequency cases manually (Van der Aalst, 2019; Jonsson, 2021). Robotic Process Automation appears as an important tool to leave all tasks target, independent of their frequency, to the system and leave more time for workers to perform added value tasks (Van der Aalst, 2019; Jonsson, 2021).

The analysis predicts that the robotic process automation market will continue to expand in the coming years as its value has been rising steadily over the past few years (Siderska, J., 2020). To illustrate the increasing adoption of RPA solutions in organizations, we will first consider the following: More than four million robots would be used for office work by the time the year 2021 rolled around, according to a prediction made by Forrester. In addition, the RPA market is anticipated to increase to USD 2.9 billion by 2021, up from USD 250 million in 2016. This is according to these projections (Le Clair, 2018). According to Gartner, RPA was "the fastest-growing segment of the global enterprise software market," and the company forecasted that the global market for RPA services would reach an estimated 7 billion euros in the year 2020. (Gartner, 2017). It is important to highlight the fact that this particular sector of the international software market is currently experiencing the most rapid expansion. A survey conducted by Information

Services Group (2018) found that fifty-four percent of European businesses have plans to implement RPA to automate at least ten processes by the year 2020. The demand for "straight-through" processing among organizations is a primary factor driving the rapid expansion of the robotic process automation (RPA) industry (Siderska, J., 2020)

2.2 The adoption of automation by local governements

In order to understand the adoption of automation tools by local governments, we must first take a look at how technology adoption is first studies in Information Systems Research (2.2.1). Then, we will be able to understand the interest of studying the adoption of the particular Robotic Process Automation tool in local government processes (2.2.2).

2.2.1 Technology adoption in Information Systems

Technology adoption is a widely researched subject at both individual and organisation levels (Venkatesh 2006). Indeed, the IT acceptance of user is known to be critical in order to guarantee the success of a technology. Yet according to Straub (2009), it is important to differentiate adoption from diffusion of an innovation. Indeed, diffusion will focus on the spread of an innovation within the social system whereas adoption will look at the decision to accept or reject an innovation.

In this context, adoption can be defined as 'the [voluntary and/or coercive] process through which [an organization] passes from first knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision' (Rogers, 2003). Therefore, researchers will look at the several information's behaviours of a user to explain why certain technology are widely used as others are rejected.

According to Taylor and Todd (1995) there has been two key approaches to study adoption and usage of Information technology (IT) systems; intention-based acceptance theories and diffusion of innovation perspective. Over the years, many theories and model have been developed to analyse those information as the theory of reasoned action (TRA), theory of planned behaviour (Fishbein and Ajzen, 1975), technology acceptance model (Davis, 1989), diffusion of innovations (Rogers, 2003), and the unified technology acceptance and use theory (Venkatesh et al., 2012). Yet, it is remained at the heart of Information Systems so finally find the perfect model that would explain the change behaviour of an individual when confronted to adopt or not a technology. Indeed, some

critics point out that the technology acceptance frameworks don't necessarily take into account the influence of social and organizational factors in their reasoning (Bagozzi, 2007; Legris, 2003). Yet, those models suggest a deep understanding of the Information System affected.

2.2.2 Embracing automation in the public sector

Robotic process automation is a relatively new type of business process automation technology that is predicated on the concept of using software robots or workers powered by artificial intelligence. Its adoption by organizations comes at a time where many other technology types are rising and proclaiming to improve business processes, such as artificial intelligence, machine learning, deep learning, data analytics, virtual reality, blockchain technologies, 4D printing etc… (Madakam, 2019). Like many, the public sector is drawn to incorporate them across their administrations and embrace the digital transformation. With the uprising of Robotic Process Automation, the world of automation has taken up a new challenge for public administrations.

But the adoption of Robotic Process Automation in the public sector still remains unknown. Indeed, the vast majority of RPA's early adopters came from the private sector (Asatiani, A., 2022), and the technology didn't start to make an appearance in the public sector until a relatively late stage but has since spread rapidly (Asatiani, A., 2022; Ranerup & Henriksen, 2020). The public sector, on the other hand, has the advantage of hindsight since it can learn from the experiences of organizations in the private sector and thereby avoid making some of the same mistakes those organizations did.

2.2.2.1 Identifying stakeholders roles in RPA adoption

The identification of the stakeholders involved in a Robotic Process Automation adoption by a public entity can be difficult. Indeed, digital governements initiatives are known to involve a large set of stakeholders (Axelsson et al., 2013).

A stakeholder can be defined as "-… any group or individual who can affect or is affected by the achievement of the organization's objectives" (Freeman, 1984, p. 46). It is possible to better understand stakeholders' interests and normative presumptions by understanding the various stakeholder perspectives (Flak & Rose, 2005). The stakeholder viewpoint can also reveal how various stakeholders influence changes and are influenced by them (Axelsson et al., 2013; Rose, Flak, & Saeb, 2018). Researching various stakeholder views

on the factors influencing a local government's adoption of RPA solutions can therefore help them gain knowledge and understanding of this behavior.

These roles can be broken down into two stakeholder groups that somewhat overlap: those participating in the development of the e-government system and those involved in its operation (Lindgren. I. et al, 2021). Keep in mind that a stakeholder can play multiple roles, and that multiple stakeholders can play the same role (Heeks, 2006). It is critical to recognize and evaluate these stakeholders in relation to the project at hand since these responsibilities can overlap, meaning that the same person or organization may play many functions (Lindgren. I. et al, 2021). Heeks (2006) argues that this analysis should be a crucial component of the initial stages of an e-government project and advises that when analyzing stakeholders, one should look at the extent to which the various roles are present, whether there are any overlaps between the roles, and the degree to which the various stakeholders are at odds with one another or working together.

Therefore, to identify the relevant stakeholders, we will get inspiration from the typology of the researchers Lindgren. I. et al (2021) inspired by Heeks' (2006) typology to identify which stakeholders appear relevant to contact in order to understand their roles in the adoption of automated processes by local governments. Indeed, they identified 8 stakeholders roles in a egovernment project: project manager, supplier, operators, clients, champions, sponsors, owner and other stakeholders. To make this list more relevant in the context of adoption by the local government, we will simplify this model as it is presented by Söderström, F. et al (2021) and only see the local government as one stakeholder as the owner of the new created system. As an addition to him, the supplier should be further investigated, as well as the consulting project management team, often called developers as they are mostly external to the public entity.

Figure 2 Stakeholders roles in Robotic Process Automation system

RPA is seen as an efficient method for the public sector to automate manual, rule-based tasks, and it is also seen as the foundation for a gradual approach to the introduction of more complex automation tools, such as artificial intelligence (Berryhill et al., 2019).

2.3 Adopting Robotic Process Automation in administrative processes

However, the arrival of Robotic Process Automation is not restricted to the developments it is producing in the private sector at this time. Through the automation of its processes, the public sector is making efforts to hasten the digital transformation that it is pursuing, more slowly but surely. In this setting, robotic process automation solutions have their place and can assist public administrations, their workforce, and their constituents in getting on board. Integration, on the other hand, is fraught with a great number of difficulties and roadblocks, particularly for more modest organizations like local governments. It would appear that a more in-depth case study of their application is required in order to share effective practices and demonstrate the way to facilitate its implementation.

2.3.1 The benefits of Robotic Process Automation

According to Houy (2019), the benefits of utilizing RPA technology seem to be self-evident.

Robotic process automation (RPA) has the potential to assist administrative organizations in lowering the cost of staff through the automation of routinely repeated manual tasks (Houy, 2019). The RPA solutions are designed with this as one of their primary focuses. Indeed, as a result of the work that has been done on automation, employees will no longer be required to concentrate on this kind of task. This could lead to working hours lighter or with a lower volume and shorter time of completion without sacrificing the quotient benefit/cost. Studies report that the Return on Investment (ROI) is clearly advantageous for the buyer (Juell-Skielse, G.et al, 2022). It is estimated to be up at 200% within one year by some researchers (Lacity, M., Willcocks, L. P., & Craig, A. 2015). The ability to scale should become a powerful argument in favour of implementing RPA in administrative settings (Uskenbayeva, R.; et al, 2019). The term "scaling up" refers to the practice of increasing the output of processes while the company is still expanding its operations. With the implementation of RPA, administrations will be able to facilitate the reusing of previously developed robots and will make it simple to manage them. The costs

associated with this change management would then be significantly lower than those associated with the more traditional increase in staff.

The implementation of this technology would result in an increase in overall administrative productivity (Ratia, M., Myllärniemi, J., Helander, N., 2018). The implementation of robotization will assist in the formation of efficient teams that are able to successfully complete difficult and problem-solving tasks, as humans will be able to delegate routine work to robots. Therefore, civil servant may eventually be redirected from fewer routine tasks to tasks requiring the assistance of humans (Ratia, M., Myllärniemi, J., Helander, N., 2018; Houy, 2019; Kedziora, D., & KIVIRANTA, H., 2018). Because of the time that is saved by using this method, workers will be able to direct their attention to more engaging tasks and work toward the timely completion of projects of this nature as a direct result of the time savings (Uskenbayeva, R.; et al, 2019). This gain time could be allocated to improve the work environment of public administrations. Civil servants could develop new skills and perform more added value tasks (Dias, M, et al., 2019; Uskenbayeva, R.; et al, 2019). If this gain of time touches enough employees, a culture sharing knowledge and collaboration could be encouraged and more easily implemented (Dias, M, et al., 2019).

Additionally to those added values, Robotic process automation should improve the accuracy and compliance of administrative processes (Uskenbayeva, R.; et al, 2019). RPA algorithms almost entirely do away with errors and stop the "human factor" from taking place (Jimenez-Ramirez, A et al., 2019). Studies are showing that this increase of accuracy will be leading to an improvement of accountability; fundamental for decision-making (Juell-Skielse, G.et al, 2022). The compliance for new regulations can also be quickly adapted and support the continuity of the service. Indeed, Robotic Process automation software are dependent on the configuration of the bots ruled by its developers. Those pre-defined rules are easily updated in the software which could improve the flexibility of administrative processes (Lacity and Willcocks, 2015).

RPA is a good solution to reduce the cost of the execution of administrative processes (Ratia, M., Myllärniemi, J., Helander, N., 2018). In general, the process of developing and implementing the first RPA robots takes about three to six months. However, the typical payback period for RPA projects can be reached after nine to twelve months (Uskenbayeva, R.; et al, 2019). Indeed, digital robots are able to work nonstop around the clock, requiring neither breaks nor time off for holidays or vacations (hence the term "24/7/365") (Jimenez-Ramirez, A et al., 2019). Robots will help perform operations significantly more quickly than humans will be able to. Because of this, there is a possibility that the operational cycle of tasks will become shorter in the future during

times of peak demand (Houy, 2019, Ranerup, A., & Henriksen, H. Z. , 2019). According to a study on the use of an automated decision-making RPA in social services, the reduction of the response time for social assistance applications improved the level of efficiency of the service (Ranerup, A., & Henriksen, H. Z., 2019)..

In order to use those findings in the discussion, here is a summary of Robotic Process automation benefits in 4 categories according to our literature review:

Figure 3 Summary of RPA benefits

Even though there are a lot of arguments in favour of adopting RPA, many public administrations continue to resist incorporating it into their processes. This is the case despite the fact that many of these arguments come in favour of RPA. RPA, like many other digital innovations, may still hold some risks and pitfalls that public officials would prefer to avoid having to deal with.

2.3.2 The challenges of Robotic Process Automation

2.3.2.1 The risks associated with Robotic Process Automation

Despite the fact that all of those arguments sound promising, utilizing RPA can also create some risks, just like the majority of other automation technologies do.

While robotic process automation allows workers to complete routine tasks more quickly and with a higher level of quality, it also has the potential to make errors more quickly and with greater certainty (Kirchmer, M., 2017). Indeed, if an error occurs in the algorithm created, the effects of this errors could be multiplied quickly and produce significant damage.

It is also possible that the use of RPA will only mask symptoms rather than addressing the underlying causes of the problems (Kirchmer, M., 2017). For instance, RPA could be used to automate the process of reconciling account differences. On the other hand, it would be much more beneficial in the middle and long terms to correct the issues that are leading to those differences. As a result, RPA could impede actual progress, something that those responsible for it need to be aware of. In order to counter those effects, safeguards could be developed to frequently evaluate the algorithm and the decisions it makes.

RPA suppliers are quick to point out that their products are simple to install and operate, even for those with less technical knowledge (Kirchmer, M., 2017). Applications that are straightforward and simple might benefit from this approach. However, in order to realize the full potential of sophisticated RPA environments, a certain amount of specialized knowledge is required for both the initial implementation and the ongoing adjustment (Kirchmer, M., 2017; Harmon, P., 2017) This should be included as part of the organization's process management capabilities; otherwise, RPA expectations might not be met at all or might not be met completely.

Because of these possible risks, RPA can be a dangerous illusion. But these risks can be kept to a minimum if RPA is dealt with in the right way.

2.3.2.2 Robotic process Automation as a social & ethical challenge

Politicians and people in charge of public services have high hopes for digitalization. Wirtz and Müller (2019) say that digital automation and artificial intelligence will improve bureaucracy by making it more efficient and creating more public value, such as fair decisions, new ways for people to participate in democracy, including users, and making working conditions better for employees. However, digitalization in public administration comes also with risks related to integrity, transparency, the rule of law and legal certainty, civil rights, democratic legitimacy, quality and legitimacy of decision-making, moral dilemmas, and profession-based uncertainties (Wirtz et al., 2019; Bullock, 2019; Rahwan, 2018). Despite all the improvement RPA solutions can bring, many people continue to question the ethical implications of utilizing robots in significant decision-making processes and whether or not it is ethical.

In this context, the ethical questions raised by artificial intelligence technology are taking on an increasingly important role. The alterations brought about by the use of these technological tools can on occasion give rise to misunderstanding and anxiety (Bernd W. Wirtz, Jan C. Weyerer & Carolin Geyer., 2019). Uncertainty is caused, in particular, by the loss of control that is associated with the transition from human-administered to independent AI technology, which can have an effect on humans as well as society (Johnson & Verdicchio, 2017). In this regard, Quraishi et al. (2017), for example, discuss ethical decisions on promoting or rejecting AI technology and robotics, with a particular focus on the question of how to protect humans from the risks associated with AI technology. Indeed, the risk of biases and prejudices is well known with automated technologies. Such biases are concerns of ethical standards in systems engineering (Spiekermann, 2015). But on another hand, technology has also the potential to make business processes fairer and less susceptible to corruption as the human is less intervening in the process. Safeguards should be put in place with such technology to found a balance between the human-robot decision making.

When viewed in this light, responsibility and accountability in relation to the governance of public administrations are essential (Asatiani et al, 2022; Martin, 2019; Asatiani et al., 2021). Concerns have been raised regarding who should be held liable for mistakes made or damages incurred as a result of the actions of automated agents as an increasing number of decisions are being fully or partially automated (Rinta-Kahila et al., 2021). These concerns are being reinforced by regulatory initiatives such as the General Data Protection Regulation (GDPR) of the European Union, which grants citizens the right to an explanation of any decision that is based on data gathered about them. These concerns are being reinforced by regulatory initiatives such as the General Data Protection

Regulation of the European Union (European Union, 2016). For instance, the Parliamentary Ombudsman of Finland just recently ruled that the rule-based automated system that the Finnish Tax Administration uses to handle taxation decisions is illegal because it violates the principles of good governance, due process, and accountability (Asatiani et al, 2022; Lindstrom & Sakslin, 2019).

Organizations in the public sector that are considering RPA need to exercise the utmost caution in order to guarantee that the automation of a particular process will not result in accountability risks or have a detrimental effect on society. In this context, there are multiple solutions that can be implemented to address the issue, such as encouraging organizations to assess the effect that the tool will have on their stakeholders, developing procedures that place an emphasis on protecting the privacy of their customers, or ensuring the implementation of clear boundaries for automation in order to guarantee that humans will retain control over the significant decisions and procedures carried out by AI. Asatiani et al, 2022)

In many instances, national legislators and regulators, as well as supranational organizations, have already become active in setting the rules that regulate the utilization of particular new technologies. Indeed, regulations are often discussed as a means to handle the impact of emerging technologies. However, its action often seems incomplete or late due to the difficulty to evaluate the impact of the newest technology and finding an appropriate solution to prevent from its risks.

2.3.2.3 Robotic Process Automation & the workforce transformation

Many experts believe that within the next ten years, a significant number of the job profiles that exist today will either transform or become obsolete (Mendling, J., et al., 2018). The model developed by Frey and Osborne (2017), for example, predicts that jobs such as dishwashers, court clerks, and telemarketers are highly likely to be automated by computerization. This may imply that individuals will need to become more adaptable and switch jobs more frequently than in the past. The requirement that workers become more adaptable will prove difficult for at least some of the labor force. On the other hand, this does not imply that there will be no more jobs in our society. The development of automation and technology over the course of the last two centuries has not rendered manual labor unnecessary. During the 20th century, there was an increase in the employment to population ratio, and, even though there have been periodic shifts in the unemployment rate, there has not been any discernible long-run increase in the rate of unemployment (Mendling, J., et al., 2018; Autor, 2015). Here, we see a competition

between two effects: the disruptive impact of technology's labor substitution, on the one hand, and the capitalizing impact of rising employment in industries that experience productivity gains, on the other (Frey & Osborne, 2017). It is challenging to speculate how the sum of these effects will turn out in the end. Therefore, what does it mean for employees who are anticipating the arrival of an RPA solution in their respective administrations?

According to Vial (2019), the skills and competencies of employees can be considered to be a prerequisite for a successful digital transformation, and the resistance of employees can be considered to be a major barrier for the implementation of digital technologies (Vial, 2019). Workforce substitution and transformation refers to the impact of RPA on the labor market and represents one of the most pervasive challenges to the public workforce (Bataller & Harris, 2016).

As RPA continues to be developed and implemented, there is a growing concern that it will contribute to an increase in unemployment due to the fact that more and more work activities and jobs will be subject to automation (Veale, M et al, 2019). The supplementation of many jobs by RPA will change their requirement profiles, which will have the effect that workers may experience a shift in roles toward a more supervisory function and will require skills that are specific to RPA. This presents a unique challenge in addition to the general difficulty of workforce substitution (Veale, M et al, 2019).. The advancement of artificial intelligence also results in the creation of entirely new job profiles, such as those of data scientists and RPA engineers. These positions call for specialists who have RPA-specific skills, which are currently difficult to come by on the market (Eikebrokk, T. R., & Olsen, D. H. , 2020). The public sector needs to make preparations for these major challenges and find solutions to them in order to shield the economic systems and society from any negative effects that may result from the transition that is currently taking place.

In order for administrations to successfully navigate this transition, they will need to implement a comprehensive strategy for the workforce to manage change. Their argument that RPA will liberate knowledge workers from highly structured, routine, and mundane tasks so that they can focus on more interesting work is frequently cited in both academic and practitioner literature. Lacity and Willcocks's argument states that RPA will allow knowledge workers to focus on more interesting work. This upbeat perspective on the potential outcomes, combined with the ease with which RPA can be implemented, requiring only a few weeks of training for individuals who have no prior experience with programming, is probably one of the most important factors contributing to its rising popularity. The more general body of literature on automation paints a picture that is less

harmonic. In this context, the effect of automating tasks is described as becoming increasingly dramatic (Marshall and Lambert 2018). In order to use this new tool in a way that is both effective and efficient, the RPA will not only require a smooth transition, but also a complete re design of the management of administrations and the formations of public officials. In order to address this significant issue, it will be necessary to consider how automated tasks and human labor can be most effectively combined.

From a different perspective, however, the increased use of technologies at work results in a greater need for digital competencies. For all occupations, the fundamental computer-related skills will be required. Additionally, as routine tasks are automated, the need for cognitive skills, problem-solving skills, and creative skills to successfully complete tasks that are not automated will increase. Additionally, because markets will be more dynamic, people will need to continually adapt to new circumstances and become more agile. The lifetime of knowledge is thereby permanently shortened, which will encourage investment in lifelong learning. Additionally important will be a certain amount of resilience. Administrations will need to look at their hiring process and workplace design in order to make sure they are ready for this transition with employees who have the necessary expertise. Administrations are already in short supply. The results of various studies show that the design of jobs affects employee creativity and wellbeing in addition to productivity (Oldham & Fried 2016). Administrations are notoriously bureaucratic in their work, and they are notoriously resistant to change. It's possible that RPA solutions will challenge this method of operation and inspire those involved to consider how work is structured in the public sector more carefully.

In order to use those findings in the discussion, here is a summary of Robotic Process automation benefits in categories according to our literature review:

Figure 4 Summary of RPA challenges and pitfalls

2.4 A will to modernize local governments public administrations

Politicians and other public administrators have high hopes for the digitalization of government (Johansson et al., 2021). According to Wirtz and Müller (2019), digital automation and artificial intelligence are predicted to improve bureaucracy by increasing efficiency and augmenting public value creation. This could include unbiased decisions, new forms of democratic participation, inclusion of users, and improved working conditions for employees. However, digitalization in public administration is accompanied by risks in the areas of integrity, transparency, the rule of law and legal certainty, civil rights, democratic legitimacy, quality and legitimacy of decision-making, moral dilemmas, and profession-based uncertainties (Wirtz et al., 2019; Bullock, 2019; Rahwan, 2018). Local governments are not excluded from this. Administrative actors at the front row with the interaction to citizens, they are the first targets when it comes to innovate their processes to improve their efficiency. In this part, we will see how local governments are slowly taking the train of RPA to facilitate their processes and which challenges they still need to answer in order to guarantee a smooth transition.

2.4.1 Introducing local governments' administrations

In many countries, municipalities are responsible for organizing and implementing the main part of public services. In this context, local governments often find themselves at the heart of new innovative initiatives in order to accelerate the delivery of their work, improve their efficiency and diminish the famous administrative bureaucracy. Of the many values ascribed in research and practice of public administration, the most prominent are the four Es: economy; efficiency; effectiveness; and equity. In fact, these are referred to as the "pillars" of public administration The public-sector workforce is a product of attention to all the essential values (Norman-Major, 2011).

In respond to it, digital technologies appear to possess the potential to strengthen public values such as efficiency, fairness, trust, and legitimacy (Criado and Gil-Garcia, 2019; Cordella and Bonina, 2012). Yet, implications for bureaucracy, public managers and employees are under-researched and empirical support is insufficient (Lindgren et al., 2019; Loberg, 2021). Implementing change management is administrations is especially challenging as the government workforce is link the concept of public jobs as public goods. Given that automation has the potential to impact jobs and broader occupational categories, understanding this potential impact on the representativeness of public work is a priority.

Municipalities can be characterized as multi-organizations. A municipality conducts policies within a wide range of activities with significant variations in how they are organized. A municipality also works with several forms of legitimacy. First and foremost, the citizens appoint the municipality's decision-makers in general elections. Still, in addition to this, legitimacy is created through, among other things, parliamentary legislation, professionalism, and user participation (Johansson et al., 2021).

In order for local governments to reap these benefits, they must first implement an integrated enterprise system that provides support for a coordinated approach to service delivery as well as a unified view of improved organizational processes (Pittaway, J. J., & Montazemi, A. R., 2020; Kohli & Johnson, 2011; Matt, Hess, & Benlian, 2015; Westerman et al., 2014). During the process of digital transformation, fundamental organizational procedures are rethought, and redesigned, existing technological tools are phased out and replaced with new ones, new skill sets are cultivated, and new modes of operation are implemented. In order to lead transformation, an organization must be willing to make significant, and at times disruptive or 'punctuated,' changes from its legacy ways of doing business (Pittaway, J. J., & Montazemi, A. R., 2020); Iannacci et al., 2019; Jones & Baumgartner, 2012; Sabherwal, Hirschheim, & Goles, 2001). And in contrast to incremental change, which can be brought about by a small number of people

working alone, digital transformation can only be brought about by actively engaging managers and employees in the process of making new ways of conducting business a reality (Westerman et al., 2014). Therefore, leadership in any transformation at the local government is crucial restructuring the organization around those integrated organizational processes and promote a real IT governance.

2.4.2 The slow arrival of RPA in local governments

Since a long time ago, policymakers and researchers have been advocating for the use of digital services as the primary interface for the exchange of information between citizens and local government organizations (Lindgren et al., 2019). The quality of the data used by local governments would also improve as a result of this, in addition to the ability of citizens to provide themselves with services independently. It is now anticipated that the continuation of the transition toward a form of local government that is more digital will include the automation of internal administrative responsibilities. These responsibilities are an integral part of providing public services to the community. The development of technologies that can automate administrative tasks at a lower cost and that are more easily accessible is going to be an important part of the solution. Automation of processes through the use of robots is one example of this.

Automation is gaining more attention as a potentially fruitful way to enable more efficient and effective methods of working, in part because artificial intelligence solutions are becoming both more advanced and more affordable. This is one of the reasons why the spotlight is being cast on automation (Lindgren et al., 2019). In addition to this, academics emphasize the fact that the range of tasks that can now be automated has grown significantly (Wajcman, 2017). In the past, certain activities were categorized as "cognitive," which meant that they required the participation or judgment of a human (refer to Lipsky, 2010). Nowadays, however, it is possible for machines to perform these activities, at least in theory. It is still largely unknown to what extent the automation that these types of technologies bring about will have an effect on the operations of local governments. This demonstrates that a heightened level of attention is required when working with automation in this particular environment.

The administrative work done by local governments is typically supported by information technology systems of varying kinds and levels of complexity; these systems are typically a mix of standardized and locally developed software. On the other hand, the systems that are currently in use are frequently antiquated and rigid, making it challenging to integrate them with one another. Because of this, human case workers frequently take on the role

of system integrators, which requires them to copy and paste data from one system into another. This particular category of administrative work is labor-intensive, has a reputation for being tedious, and is linked to a great deal of risk regarding the handling of sensitive data (Lindgren et al., 2019).

In most cases, the technological solution will follow the division of labor, regardless of whether or not the tasks in question can be automated (Autor et al., 2003). Calculation or picking and sorting are examples of routine tasks that are non-cognitive and repetitive. Routine tasks also involve very little to no interaction with other people. The tasks that are most likely to be automated are the ones that fit this profile. Nonroutine jobs that are cognitively taxing, and interactive exercises will not be automated, and it's even possible that workers will have to put in more time to complete them because of the time savings created by the automated tool. It is important to keep in mind that the educational and professional requirements for the prerequisites for either type of task can vary.

Robotic process automation has emerged as a possible lightweight and more cost-effective digital solution as an alternative to traditional methods and a way to increase efficiency in local government. This is a response to the challenges that have been presented. RPA has the potential to significantly lessen the workloads associated with low-value tasks, thereby freeing up more time for workers to focus on more difficult responsibilities. Because of this, local government agencies that make use of RPA may be able to gain a competitive advantage, which can be of great benefit to these agencies. Additionally, it can save costs in an exponentially greater manner by lowering or even eliminating the requirement for outsourcing entirely, which is a significant financial burden for many businesses. The improvement of workflows that are automated leads to an increase in the overall quality of the services that are provided to citizens. This is beneficial for everyone involved. RPA is useful in a wide range of domains, such as report writing, the analysis of public sentiment, the application process and reviewing, data entry, and data migration, to name just a few.

3 Methodology

The thesis is aiming at understanding the impact of the Robotic Process Automation on the administration of the public sector and the work of civil servant. As a recent technology, RPA appears under study and very little research have been published on this specific subject. The methodology of this paper will follow an explorative research design based on a case study. This part will also explain the case study selection, the data collection, and the data analysis process for the purpose of this research.

3.1 Research design

As outlined in the introduction, this thesis aims to investigate the adoption factors of Robotic Process Automation by local governments. Therefore, to answer the proposed research question and its hypothesis, this research will conduct an exploratory case study research design as outlined by Yin (2018). Herein, the term "exploratory case study" refers to a qualitative technique used to better understand how stakeholders view a particular phenomenon. (Yin, 2018).

As we understand from the literature review, this technology is relatively recent with little study on the subject, specifically in the field of public sector and egovernance. As an emerging technology, few case studies have been conducted by researchers. Consequently, this technology is little understood by the public administration research field and specially its implications within the public sector. Nonetheless, the discussion surrounding it has been mostly driven by theory rather than practice. In order to provide more inside on the subject, this research aims at drawing a real-world image of the actual landscape of Robotic Process Automation in local government.

However, to provide a more in depth research, the choice of choosing a specific case study seems appropriate. A pragmatic approach will be follow in order to provide practical results of the current landscape (Rescher, 2016, p. 1). The methodology of my thesis will follow an exploratory and inductive research to develop generalizations from concrete observations and use my observations to explore, describe, and explain the phenomenon (Rescher, 2016).

Indeed, according to Yin (2018), a case study focusing on empirically researching certain phenomena and their contexts is useful, especially if the distinction between the two is not clear. The results carried by this research concerning the adoption factors of Robotic Process Automation by local governments will have to be put back into the context of the

case studied to understand the commonalities and confront the potential barriers and opportunities of it. Thus, this method will provide a holistic examination of this new phenomenon. Therefore, the case study will be chosen through the research object.

3.2 Case study research

This paper will follow a qualitative approach in order to identify factors that may influence local governments to adopt a Robotic Process Automation solution and their impact on the work of the civil servants. In order to proceed the methodology, an explanation for the case selection (3.2.1) will be provided for the reader. Then, we will present the data collection (3.2..2) of the relevant information needed and the analysis (3.2.3) of this relevant data to provide the results of this research.

3.2.1 Case selection

As previously outline in the literature review, Robotic Process Automation is an emerging technology that could shake up the organisation of local public administrations across the world. This phenomenon is set to have an impact on administrations across the world.

In Europe, the European Commission is already pushing its agenda to public administrations to seize this opportunity. Since the pandemic, RPA is seen as a "key tool in restarting the EU economy and boosting productivity" by the EU (Von Der Leyen, 2019). However, despite this call, European administrations seem not to have responded to the message as only one initiative in Sweden appears in the European Commission's AI watch 2021 index.

The Swedish case study has recently (2022) been the subject of a series of research papers on the impact of the RPA on local governments. These papers have been useful in establishing a literature review of interest for our research. In view of this, it seems interesting to look at a case study of a country similar in its governmental organization and social economic factors to Sweden. In this way, similarities and differences can potentially be later observed by the scientific research on the subject.

In this context, France seems an interesting case study to pursue in this field.

3.2.2 Research Background – The case study of French local governments

3.2.2.1 French administrative system

France is a member of the European Union and is also pursuing a policy pushing for the digitalization of its public administrations. Its administrative organization derives from a Napoleonic system with a centralized and hierarchical administrative structure (Kuhlmann, S., & Wollmann, H., 2019). According to the French Constitution (1958), France is a unitary state with a decentralized organizational structure. Article 1 of the French Constitution, which outlines the Characteristics of the Republic, was revised in 2003 to add the phrase "It shall be organized on a decentralized basis." Decentralization ("decentralization") has been the French political concept for local self-government.

Therefore, the decentralized French government is divided into three sub-levels: the Regions ("regions"), the Departments ("départements"), and the Municipalities ("communes"). For the purposes of this thesis, we will not mention the exceptional territorial communities such as the communities with special status and the overseas communities governed by Article 74 of the French Constitution. Those three public entities are considered by the French administrative system as "local governments" (Hertzog, R., 2012). They don't have any legislative authority. They carry out their duties by enacting regulations in certain fields and by managing their budget. The Constitution expressly upholds the notion of local authorities' freedom of administration, and it is completed by the principle of the local, intermediate, and regional authorities' financial autonomy. The exercise of their functions is generally under the authority of local, intermediate, and regional authorities. Shared competences are the norm as a result. Regional, intermediate, and local governments do not have a hierarchy. "Local experiments" may be conducted by local authorities. These are legal permissions granted to a local authority to carry out public policies on an experimental basis, across a defined area, and for a set amount of time, which typically do not fall under its purview under the law. The delegation of this authority to all authorities at the same level is tested if the experiment is positively rated (Hertzog, R., 2012).

In order to understand the delegation of power between the central government and its local governments, the figure below summarizes the main powers of each level, although other laws mention exceptions:

LEVEL	COMPETENCES
REGIONAL	• Regional transport, including regional transport plans, civil airports, non-autonomous harbours; • Departmental transport, including school transport, interurban transports, passenger transport, roads, commercial and fisheries ports, civil airports, non-autonomous harbours and railways; • Education, in particular high schools (*lycées*); • Vocational training and apprenticeship; • Culture, including cultural heritage and monuments, museums, archives, artistic vocational training and learning; • Regional planning; • Economic development; • Environment, and • Scientific development.
DEPARTMENTAL	• Departmental transport, including school transport, interurban transports, passenger transport, roads, commercial and fisheries ports, civil airports, non-autonomous harbours and railways; • Education, in particular ordinary secondary schools (*collèges*); • Vocational training, in the field of music, dance and drama; • Inclusion and social welfare (in charge of all of social aid); • Public health, including sanitary protection, vaccination; • Planning, including aid programme, in cooperation with the Regions; • Economic development (complementary to that of the Region); • Environment, in particular protection waste and water plans, and • Rural development and agriculture aid. • Tourism. • Business Development.
LOCAL	• Municipal transport, including school transport, yacht harbours, civil airports, non-autonomous harbours; • Culture, including teaching schools (*écoles maternelles et primaires*), archives, museums, libraries; • Public health (vaccination); • Economic development (complementary to that of the Region); • Environment, specifically water and waste, and • Housing.

Source: European Committee of the regions (2022)

Table.1 Competences of local governments in France

Under those definitions, we will be considered in this thesis “regions”, “departments” and “municipalities” as local governments.

3.2.2.2 A push in favour of Robotic Process Automation

In this context, local governments are allowed and encouraged by the central government to take initiatives in technological advances.

In 2018, the Interministerial Directorate for Public Transformation (2018) published a study exploring the impacts and potential of digital transformation for public agents. The automation of the management of administrative tasks involving Robotic Process Automation solutions is identified as one of the main digital levers.

In the recovery plan for the digital transformation of the State and Territories (2020), the State is launching a €21 million call for projects to "improve the efficiency of public services by optimizing support functions and automating transactional tasks". In particular, they are calling for projects involving the use of Robotic Process Automation technology.

In the Ministry of Public Transformation's 2019-2022 roadmap to "Accelerate the digital transformation of the public sector," the government states that it wants to "Mount research partnerships in artificial intelligence Investigate the use of new technologies (process robotization, edge computing, IoT, etc.)." This action is supposedly achieved by the objective of "Successfully experimenting on AI, RPA and chatbots".

In 2022, the government even publishes an announcement for municipalities to help them in their project of experimenting an RPA solution in their administrative processes with financial support (2022). However, no results or updates have been yet shared about this initiative.

Given these circumstances, France appears to be an interesting subject to study as it is given apparently a very favorable landscape to the discovery of case studies of local governments in France using this technology.

3.3 Theoretical Background – the PPM framework

In order to answer the objective of this thesis on the factors of adoption of Robotic Process Automation technology in local governments, we need to go back to the already existing

scientific research on the subject. As previously mentioned in our literature review, several research papers have recently been published on the subject. However, those concerning a European administration too often belong to the same group of researchers and thus only use the example of Sweden (Lindgren, I., 2020; Lindgren, I.et al, 2022; Toll, D., 2021; Sobczak, A., & Ziora, L., 2021; Söderström, F., Johansson, B., & Toll, D., 2021; Andersson, C., 2022).

In order to make a contribution, it seems interesting to take up one of their frameworks to offers an opportunity of comparison with our case study in order to validate their hypothesis and to provide some clarifications. To this end, we will follow the framework used by the researchers Söderström, F., Johansson, B., & Toll, D. (2021). Themselves prescribed the use of the PPM framework to analyze the factors the decision to adopt RPA technology in local government in Sweden. It is the only paper at the present that decided to study this subject.

The push-pull models dominated much of the migration thinking during the middle of the twentieth century, lasting until the 1960s. These models are reflective of the neoclassical economics paradigm, which is based on the principles of utility maximization, rational choice, price differential between regions and countries, and labor mobility (King, 2012). The Push-Pull-Mooring (PPM) framework is widely recognized as the preeminent paradigm in migration research due to the fact that it is founded on accumulative laws (Zengyan et al., 2009). According to this model, the decision of a migrant to transfer from one location to another is influenced by three different factors: push, pull, and mooring.

Outside of the realm of demography, the PPM framework has been used in a number of different studies to investigate various instances of switching behavior in fields such as child-care services, energy services, and auto repair services (Söderström, F., et al., 2021; Grace and O'Cass, 2001; Wieringa and Verhoef, 2007; Bansal et al., 2004) .In addition to that, a number of information technologies in their various forms have been researched with the help of this framework (e.g. Söderström, F., et al., 2021; Susanty et al., 2020, Chang et al., 2014). Historically, PPM studies have frequently had a transactional focus; but, as time has passed, they have also grown to incorporate a relational focus; as a result, they have drawn from research regarding customer commitment (Bansal et al., 2005).

However, this research will move away from the original meaning of this framework to the organizational setting of Susanty et al. (2020) and Söderström, F., et al. The latter justify its use to "offers an approach for understanding switching behavior (...) in the context of adopting technologies for automation (Söderström, F., et al., 2021). Indeed, the adoption of an automatization of processes fundamentally leads to a change in the organizational behavior of the organization that it impacts, in this case local governments.

This choice is reinforced in their conclusions, which emphasize "potential benefits of applying the PPM framework and using the term migration as an analogy to develop knowledge about what influences local government organizations to adopt process automation". To reinforce this hypothesis, they call for future research to use this framework in order to report bright new insights in relational contexts.

By choosing to follow this methodology, we will be able to confirm or express reservations about using this framework to analyze the factors of adoption of automation technology for public administrations.

3.4 Research approach

As mentioned earlier, this research follows an exploratory and inductive approach in order to understand the extent of local government adoption of the Robotic Process Automation but also to identify the factors influencing its adoption (or not). In order to pursue this objective, the approach of this research will pursue an empirically grounded qualitative and interpretive approach where three empirical perspectives are investigated: *RPA suppliers*, *RPA developers* and local governments as envisioned in previous research by Söderström, F., et al (2021).

3.4.1 Data collection

According to Yin (2012), several data collection sources are recommended in a research case study based as Documents, archival records, interviews, direct observations, participant 30 observations and physical artifacts. This research will combine documents, email correspondence and interviews in order to provide sources for the data collection.

In the vast majority of the case studies, it was determined that document analysis was beneficial. Its strengths include, but are not limited to, stability (which enables multiple reviews of documents), exactness (which ensures that data is accurate and can be crosschecked), and extensive coverage (which enables analysis of multiple events, time frames, and settings) (Yin 2009). However, one of the most significant flaws is selection bias, which occurs when the author, either intentionally or unintentionally, chooses an insufficient number of data points. The following actions have been carried out as a means of resolving this issue and maximizing the potential advantages.: Firstly, initial set of documents has been identified that address directly the subject of the research. Documents about the use oft he technology by the public sector was gathered from articles, white

papers, supplier material and research papers found on Google Scholar and Google. The search terms used were “Robotic Process Automation”, “RPA”, “digital process automation”, “France”, “local governments”, “municipalities”, “automation”, “Departements”, “regions”, “territorial community“ and combinations of these terms both in english and in French. From the references of the identified papers further articles were found. Further knowledge and information were gathered from documents transmitted through interviews with RPA stakeholders.

Email correspondence with several entities was carried out in order to gain more insight information on available documentation and request for interviews.

In order to add legitimacy to the research and collect extra material that was not covered in the paperwork, interviews were done. Interviews were conducted. Participants in the interviews have been chosen based on the stakeholders in robotic process automation that have been identified in relation to the deployment of these technologies by local governments. The respondents were chosen based on their roles, the duties that came along with them, and the functions that their businesses perform. The interviews were carried out using the Zoom application, and the interviewees gave their consent before the conversations were recorded and transcribed. The design of the interviews was such that they were semi-structured with a questionnaire so that we could learn about each interviewee's perspective while also allowing for the option of drawing some comparison between each conversation (Wilson 2014). Yet, the questionnaire was adapted according to which type of stakeholder was interviewed (different between a local government or a Robotic Process Automation supplier). The exploratory character of the study influenced the selection of this interviewing approach, which was chosen in accordance with that (Rubin & Rubin, 2005).

To organize the data collection and target useful information, the methodology of this paper follows the three processes (Söderström, F., et al., 2021): RPA suppliers, RPA developers and local governments.

Stakeholder	Target entities	Source of data
RPA suppliers	Uipath, Automation Anywhere, Blue Prism, Microsoft Power Platform, Osidoc, Pega System, Novelis, Wisebot, Appian	Documentation, email exchanges, interview
RPA developers	Consultancy firms	Documentation, email exchanges
Local governments	Regions, Departments, municipalities	Documentation, email exchanges, interview

Table.2 Data collection according to stakeholders

3.4.2 Data sources

- **Robotic Process Automation Suppliers in France**

In order to target the main RPA providers on the French scene, several sources were used. Firstly, the main suppliers in the public and private markets were identified via various studies (Gartner, 2019; Itespresso, 2021). The five main ones active in France are UiPath, Automation Anywhere, Blue Prism, NICE and Pega System. From this list, the supplier NICE is removed due to lack of items or activities concerning public sector customers (NICE, 2022).

In order to strengthen this list, the GouvTech catalog, which allows public services to access available digital solutions offered by companies, was consulted (GouvTech, 2022). This catalog is made available to allow an institution in France to make their solutions known to public administrations. The suppliers Pega Systems (under the name Pega Platform) and Microsoft (under the name Microsoft Power Platform) have been confirmed. The suppliers Appian, Osidoc, Novelis and wisebot were added to the list.

Of these stakeholders, data was collected from Robotic Process Automation webpages and studies that expose their activities with public sector entities (Appian, 2022; Osidoc,

2022; Novelis, 2022; Wisebot, 2022; Pega Systems, 2022; Uipath, 2022; Automation Anywhere, 2022; Blue Prism, 2022).

To confirm the information found and to reinforce the data from this research, several interviews were conducted with actors of this field. First, an interview with the CEO of Osidoc took place with a complementary exchange of documentation on the work done by the company with its public clients. Secondly, two interviews were conducted with the director of Public Sector affairs, an Account Technology Strategist, and the Sales Executive Business Applications for local governments at Microsoft.

- **Robotic Process Automation Developers in France**

In order to identify the main developers of RPA in France, we first turned to the main French consulting firms in the public sector. According to a study by Capital (2016), the public sector, including local authorities, has used many external service providers to modernize. The top five are identified as Deloitte, Wavestone, Accenture, Capgemini and Eurogroup.

To this list can be added the following consulting firms that have published numerous articles on their website mentioning an RPA solution development service for public sector clients: EY Consulting (2022), Sollan (2022) and Deloitte (2022).

- **Local Governments in France**

In order to meet the definition of local government in France, regional, departmental and municipal public administrations were mainly targeted.

In order to find a local authority that could demonstrate such an initiative, the Ministry of Public Transformation was contacted.

At the regional level, the general directorates of digital and information systems ("Direction générale du numérique et des systèmes d'information") were contacted to inquire about a possible automation project or initiative in their administrative processes. After email exchanges, none of them reported any initiatives on the use of RPA solutions in their administration.

At the departmental level, due to the large number of departments in France (100 departments), not all of the digital and information systems departments were contacted. The scope of the research was limited to departments that mentioned an automation initiative (Appian, 2022) of their administrative processes in articles. Only one manager

from the Yvelines department responded to this request and accepted the interview request.

At the municipal level, the digital and information systems departments of the 10 largest French cities (Paris, Marseille, Lyon, Toulouse, Nice, Nantes, Montpellier, Strasbourg, Bordeaux, and Lille) were contacted to inquire about a possible automation project or initiative in their administrative processes. After email exchanges, none of them reported any initiatives on the use of RPA solutions in their administration.

3.4.3 Data Analysis

The data collected from documentation, interviews and emails exchanges was analysed through a grounded theory approach (Charmaz and Belgrave 2012). A grounded theory refers to a systematic method for constructing a theoretical analysis from data with explicit analytic strategies and implicit guidelines for data collection. It is an inductive, comparative, iterative and interactive method. According to Charmaz and Belgrave (2012), this method is suitable for a collection of data that have largely remained unaddressed. This method is one of the most used data analysis approaches in qualitative research.

Therefore, an open coding was used to analyse the collected data first through the interviews. After multiple rounds of coding, categorization was drawn from the coding and adjusted according to the data retrieved from the documents and email exchanges.

4 Results

The results below are based on the methodology presented in the previous section. They are based on several interviews conducted, mail exchanges and personal research. First, these results will be presented according to the different stakeholders involved in the process of Robotic Process Automation adoption by local governments (4.1) and then we will see the limitations to be taken on these results in order to draw conclusions (4.2).

4.1 Adopting Robotic Process Automation in french local governments

As seen in the literature review, 3 main stakeholders can be identified as intervening in the process of Robotic Process Automation adoption by local governments: Robotic Process Automation Suppliers (4.1.1), Robotic Process Automation Developers (4.1.2) and of course the Local Government itself (4.1.3). This vision is confirmed several times during our interviews with Microsoft and the local government. Therefore, the presentation of our results will follow this division.

Each part follows a similar division of the results in order to allow an easier comparison of the data produced in the discussion part. This division is chosen according to the coding produced during the transcription and analysis of the data produced (see methodology).

4.1.1 Robotic Process Automation suppliers

In recent years, a growing number of businesses have begun to develop RPA solutions for the benefit of their clientele. This technology has gradually established itself as one of the leaders of creative technological solutions, and it does so regardless of whether it is serving consumers from the public or private sectors. However, in order to satisfy the ever-increasing demands of the market and to ensure that businesses continue to be technologically competitive, a variety of organizations have looked into the possibility of providing RPA solutions.

It seems as though most organizations operating in the public sector are just beginning to document their experiences with this technology. Both small and major stakeholders are working toward the goal of being a provider of first choice for these clients. I. Lindgren and colleagues (2021) state that a suitable definition of suppliers is "those who will supply the technology and other resources required by the e-government system."

4.1.1.1 Introducing suppliers' profile

The number of RPA solution providers continues to grow. However, these providers offer different types of solutions depending on the needs of their customers. While some suppliers appear as true specialists such as BluePrism or Uipath, Automation Anywhere, others offer more low-code solutions such as Appian or Microsoft Power Automate or Osidoc.

Regarding the so-called "specialist" suppliers, very few communicate on software sold in the public sector. Although Microsoft identifies them as competitors, they confirm that they do not target the same types of projects since they cannot position themselves as RPA experts. These RPA solutions are seen to create a true "digital worker" as the CEO of Blue Prism (Raoul, 2022) points out. This is why its automation solutions are designed by mixing RPA with other technologies such as the cloud or artificial intelligence, although some critics point out the lack of OCR and machine learning functionality in Blue Prism's solution (Raoul, 2022). Its solutions are also considered very expensive for customers. The CEO of Blue Prism defends himself with an ROI of more than 1000% thanks to an additional digital worker who generates three to five times the activity that a human being could have accomplished (Raoul, 2022). In principle, they specialize in the two main types of RPA solutions. On the one hand, programmable robots that are defined by precise rules and instructions. These require the assistance of developers in a long process in order to deliver complex tasks (Escalé, 2022). On the other hand, intelligent robots mixing RPA with artificial intelligence. They need a large amount of data in order to perform the process themselves (Escalé, 2022).

Other more generalized suppliers are also tackling RPA solutions but by offering solutions via low-code development platforms. For a player such as Microsoft, they became interested in RPA in 2020 in order to expand their offer to their customers (already with 33 large applications) and remain competitive in the technology market (cf Interview 3). They have a very advantageous position in the market due to their large presence in public sector administrations with their various applications (Teams, Excel, Word...) (cf Interview 4). With their Power solution on Windows 11, they aim to democratize this tool and help their customers' digital transition. They do not present themselves as RPA experts but aim to sell simple and accessible process automation solutions to their customers. This solution is called low-code and aims to simplify access to complex IT solutions.

Other smaller companies are also trying to stand out from the crowd and offer simple and cheap RPA solutions for their customers. Such is the case of Osidoc, a company born in 1985 to help administrators in their IT transition. It offers an online intelligent authoring service that allows, without any training of the end user, to dematerialize files and automate the associated document processes (cf Interview 2). Their solution is simple and requires no developers. The strength of their solution lies in the intuitive software and local support that a small company (15 people) can provide (cf Interview 2).

4.1.1.2 Selling the Robotic Process Automation solution

As a supplier, the first concern is to be able to sell your solution to customers. When it comes to public sector customers, some of the prerogatives are different from the private sector and require a greater effort to align with their expectations. Several advantages to adopting Robotic Process Automation software are highlighted in their discourse (4.1.1.2.1). However, it seems important to also highlight the challenges that this automation will face (4.1.1.2.2).

4.1.1.2.1 Advantages

Numerous benefits were highlighted during our interviews. Automation via Robotic Process Automation software guarantees an improvement of the operational efficiency of a public administration (Cf Interview 3). Indeed, the administration has much to gain through a reduction of operational tasks for civil servants who can thus concentrate on tasks with real added value (Cf Interviews 2, 3, 4). This change brings more flexibility to the agents who appear more motivated to do their work, now rid of certain administrative tasks. Microsoft has found that their customers are more efficient and able to respond to their customers' needs because of the time saved (Cf Interview 3). The user experience is also better, with faster procedures and administrators gaining more time for more personalized support (Cf Interview 3).

The local authority can observe other benefits concerning the reduction of administrative complexity and a reduction in internal bureaucracy (Cf Interviews 2, 3, 4). Indeed, with its Robotic Process Automation solutions, documents are more standardized and contain the exact information needed by the administrator to manage a file (Cf Interview 2). Indeed, human errors related to administrative data entry are estimated at 2% according to Microsoft (Cf Interview 4). With automation software, errors are greatly reduced and

the cost of error processing by teams is reduced (Cf Interview 4). Furthermore, the software can adapt quickly in any change of legislation (Cf Interview 2).

Automation also brings many benefits in terms of workload reduction. The Robotic Process Automation software as a "digital worker" does not require any breaks and can continue to run for 24 hours a day, 7 days a week (Raoul, 2022). However, public suppliers seem to shy away from talking about a gain in ROI due to the particularity of the public sector. They prefer to mention an increase in the employee's performance and some help in the course of his work rather than underlining the possibility of a reduction in the administrative body (Cf Interviews 3, 4). In fact, due to the status of civil servants and local authority workers, automation should not be used to replace the work of public employees. They also stress that the robot should not work alone, and that human intervention is still necessary in all the proposed software (Cf Interviews 2, 3, 4).

4.1.1.2.2 Challenges

Many other challenges are presented by its players when faced with the adoption of an RPA solution by their public customers.

One of the first in sight revolves around a well-known problem of public administrations: administrative complexity. Indeed, especially for local authorities, there is a certain disorganization between municipalities, departments, and regions when it comes to managing files (Cf Interviews 2,3). Many still follow an old system based on paper files that are passed from administration to administration without any effort to update or follow up. In an increasingly paperless world, public services seem to be lagging on the subject. The RPA appears as a fabulous tool and initiative to push this digitalization work (Cf Interviews 2, 3). Suppliers must therefore manage to understand the (sometimes manual) processes carried out by public servants. Some sometimes choose to call in a third party to help the community get things in order (Cf Interview 4), while others prefer to spend a long time with their workers to help them identify the process (Cf Interview 2).

All mention, however, that the key to success is to stay as close as possible to the "business," that is, to the workers themselves. This is why long interviews and follow-up with staff are undertaken to better understand the work of local authorities (Cf Interviews 2, 3, 4). For Microsoft, any successful Robotic Process Automation initiative must start from the field and work its way up to management. The heart of success is really understanding their customers' business (Cf Interview 4).

Sometimes their customers themselves are the brake on the development of the solution. As the Director of Public Sector at Microsoft says, "It's not enough to put the solution in our customers' hands for it to work" (Cf Interview 4). True governance is needed to help the public organization deploy a fitting solution and ensure an efficient and effective implementation of the software (Cf Interview 3). Indeed, a too hasty introduction of automation can disrupt the work of civil servants and disorganize the whole department. Due to the weight of the past, the support of public employees in the change process must be more important than in the private sector. Suppliers sometimes face psychological obstacles from civil servants due to their refusal to change, their habits or a lack of understanding of the benefits brought by automation (Cf Interview 4). A real support work on the field and with managers is then necessary. Microsoft offers a training catalog accessible free of charge on the “Killing Initiative” platform to prepare public workers for these changes. This training aims to help people in contact with the Robotic Process Automation software to understand the stakes of its integration but also the functioning of the platform (followed by a certification) (Cf Interview 4). Osidoc also offers a more personal training with a 2-day presentation of the Robotic Process Automation software followed by a 5-day follow-up on the appropriation of the software by the workers. Microsoft also mentions that sometimes its resistance from public workers is not necessarily psychological but can sometimes be technical due to a lack of training in digital tools (Cf Interview 4). They have developed a partnership with “Simplon” to help their customers train illiterate digital workers.

Of course, as a supplier for a public organization, concerns have been reported about data security. Their public customers have been the target of numerous cyberattacks in recent years. There is a significant effort on data security in their Robotic Process Automation solution (Cf Interviews 3, 4). This security is provided for example with better VPN management when it is deployed, corrections on security protocols or by providing new protection services on new types of attacks such as Distributed Denial of Service attack (DDoS) (Raoul, 2022).

Continuing with data management, it is important to note that providers must comply with the new General Data Protection Regulation (GDPR) rules for their customers. This prerogative is important and careful work by its platform creators is needed to address it (Cf Interview 2).

Regarding data hosting, Microsoft and several American players are facing pressure in France on their partnerships with the public sector (Cf Interview 3). Indeed, as an American company, they are obliged to sign the "Patriot Act" of the American legislation. The latter allows the American administration to require one of its companies to provide

the private data of their customers in case of suspicion of terrorism. Although its use is almost improbable according to Microsoft, the Ministry of Education raises a potential threat of partnerships with private American companies (Cf Interview 3). However, it seems unlikely that French public administrations will stop using these companies because of their monopoly in the global technology scene, including RPA providers. The real French alternatives seem to be insufficient in comparison (Cf Interview 3). But this monopoly exercised by American companies also weakens the rise of smaller French suppliers. The latter, more restricted by their size, find it more difficult to gain access to government customers (Cf Interview 2). Public procurement is difficult because of a lack of confidence on the part of public administrations in smaller businesses.

Finally, the price of software seems at first sight to be a brake for some. BluePrism has noted some criticism of the high cost of their software (Raoul, 2022). However, its director defends himself by mentioning that the quality of the service allows a very interesting return on investment for the organizations. Appian gives more information about their pricing by mentioning that it depends on the number of developers with Appian Unlimited (Raoul, 2022). This allows their customers to know exactly how much a license costs over the year and truly use it as an unlimited tool. To promote its use, Microsoft themselves offer limited but free access to Power Automate to their customers (Cf Interview 3). But according to Osipoc, price is not a factor limiting the adoption of automation via RPA by local authorities. Indeed, following the Covid crisis, the supplier had offered a free installation of its software to help citizens complete travel certificates. Its proposal was not taken up by administrations (Cf Interview 2).

4.1.1.3 Working with other stakeholders of the field

For successful adoption of AHR software created by suppliers, it is important to establish strong links with the various stakeholders in the field. On the one hand the developers (4.1.1.3.1) and on the other hand the local governments themselves (4.1.1.3.2).

4.1.1.3.1 Partnership with RPA developpers

In order to promote their products to the public sector, many suppliers call on partners to help them integrate the Robotic Process Automation solution into their customers' systems.

Microsoft has more than 1000 partners at its disposal. Two types of partnerships are then possible. In the first phase, the partnership takes place with consulting firms (e.g. Deloitte, Eurogroup) that promote their products upstream or help communities to define their project (Interview 3). In the second phase, other integrator partners (e.g. Accenture, Cap Gemini, EY) intervene to help the local authority install their solution within the administration and to support the teams in the change process. This can be done by adopting the Agile methodology, for example (Cf Interview 2). In addition, they can sometimes offer training for the local authority's employees in order to optimize the use of this new automation tool (Cf Interview 3). In particular, they help to increase the skills of central teams and business departments. They help deploy applications and train teams in their use (Cf Interview 4). They appear to be essential for large-scale projects in order to share the pressure of this deployment between several companies.

However, it is precisely these privileged partnerships that seem to drive out the smaller, less prestigious suppliers than the big names. Indeed, they are a brake on the activity of the latter because the integrator takes care of generating the service itself. The big suppliers just have to wait for the contract to come to them. This can be very frustrating for smaller groups (Cf Interview 2). At the same time, for large projects, Osidoc recognizes that its size limits it from executing properly.

4.1.1.3.2 Partnership with RPA developpers

A good partnership between the local government and the supplier is essential to ensure the success of the project. With the rise of RPA on the technology scene, many governments are turning to suppliers to get up to speed (see Interview 4).

One of the first ways for a government agency to access a supplier is to turn to the official government catalog called "GouvTech. This digital catalog, put online by the Digital Directorate (DINUM), lists digital solutions and tools for use by administrations (GouvTech, 2022). The goal is to promote the use of digital tools that can be useful for public services. This catalog allows all types of technological solution providers to make themselves known to administrations by requesting their listing on the tool.

However, we can see that some major suppliers specialized in RPA are not listed on this catalog. Indeed, Nice, Uipath, Automation Anywhere, Appian or Pegasystems have chosen to be listed on the multi-publisher list with the "Union des groupements d'achats publics". Different from GouvTech, this purchasing group is known to local governments and is an effective tool for making itself known (Raoul, 2021). However, despite their

desire to be known, its major suppliers still do not communicate about automation projects with local governments. On their websites, one can find case studies of public administrations mainly in the United States or in other countries outside the European Union. The majority of their publications on public customers are in English and are not specific to the particularities of French administrative systems (Uipath, 2022; BluePrism, 2022; Automation Anywhere, 2022; Pegasystems, 2022).

Microsoft claims to have created a community of users who are able to share best practices on the use of their RPA software (see Interview 4). However, when asked about the existence of examples of public administration of this community, they answer that they do not yet have any available.

When Appian was asked about potential local government customers, they replied in correspondence that they did not currently have any customers whose projects were sufficiently developed to testify on the subject. The other suppliers refrained from responding to this same request.

4.1.1.4 Foreseeable future of Robotic Process Automation

In conclusion, these RPA solution providers seem to realize that they are not at the end of the road but at the beginning. They believe that RPA allows local governments to prepare for other societal changes where their users will have new needs that must be met. From a requirement to stop moving to a more personalized experience, governments will have to redouble their efforts to catch up with the trends of improving the user experience (Interview 3, 4).

To meet this challenge, suppliers must help them modernize their applications and go even further in the use of these solutions. This includes opening up RPA to the end-user or providing decision support via software that combines RPA and automated decision making (see Interview 3). However, many of them agree that it is in day-to-day operations that RPA technology will make a real difference (see Interview 2, 3, 4). Developed on a large scale, its use on an industrial scale will be able to transform the operations of civil servants (see Interview 4). However, AI should not totally replace human action, which is crucial in the field of public service, but bring certainty to the choices made by the citizen (see Interview 4).

4.1.2 Robotic Process Automation developers

Because of the information provided by our interview with Microsoft, we will look at the information provided by the main developers mentioned, i.e. Cap Gemini, EY, Eurogroup, Accenture, Deloitte. The information below results from an analysis of their public publications on the subject of RPA and the public sector, but also from the mentions of these stakeholders during our interviews.

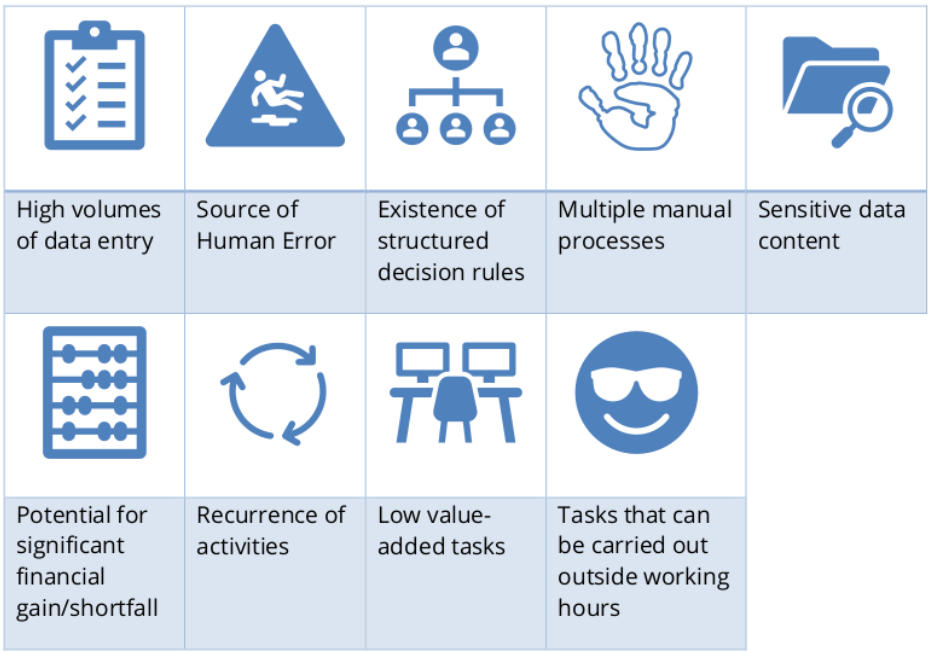
However, it is necessary to already note that the communication of these firms is very limited concerning the deployment of RPA solutions in the French public sector. Numerous articles on RPA are published, but they only concern use cases for private companies. This information will therefore not be analyzed in our approach.

4.1.2.1 Introducing Developpers' profile

The developer profile is difficult to describe because it brings together many large and small consulting firms involved in the relationship between Robotic Process Automation suppliers and local governments.

According to our previous interviews, the intervention of these developers is either upstream or downstream of the supplier's intervention with the local government (see 4.1.1). EY provides additional information about its support in setting up an RPA process. First, it helps its client to identify the use cases via a quick analysis to identify the best RPA use cases within the organization. This analysis allows the administration to prioritize the services to be automated according to a matrix to help in the choice (Deloitte, 2022). In a second step, they provide a tailored approach to deploy the automations and facilitate the organizational change of the entity. The change process goes through a selection of pilot robots to be launched, the development, the implementation of the robots and finally the transfer of skills to the agents (Deloitte, 2022).

The processes targeted are mainly repetitive, error-prone, rule-based, numerical and/or time-critical and seasonal tasks (Deloitte, 2022).



Source: Deschamps (2022)

Figure 5 Processes that can be automated

4.1.2.2 Selling the Robotic Process Automation solution

Being able to sell the RPA solution is at the heart of a developer's job. The developer acts as a bridge between the highly technical discourse of the solution provider and the more social expectations of the local government

4.1.2.2.1 Advantages

Many advantages to an RPA solution are discussed by developers in order to convince local governments to adopt such initiatives.

First, these developers emphasize the need to adopt a solution that meets the specific needs of the public sector (Cap Gemini, 2022). This includes addressing the bureaucracy and complexity of public organizations. They are pushing the argument of simplifying and dematerializing processes, in particular through electronic document management of administrative files (EY, 2022). Thus, the transfer of supporting documents or filing in

electronic document management will be implemented and facilitated by the RPA software.

The developers are thinking of selling this type of solution by mentioning the elimination of manual and tedious tasks for public workers. In particular, this means an improvement in the quality of life at work for agents by eliminating repetitive and time-consuming tasks (EY, 2022). In the end, this means a gain in work force for administrations that are increasingly confronted with a reduction in their staff and increasingly heavy prerogatives.

These benefits also directly affect citizens who can see an improvement in their administrative service through automatic information delivery, email responses, notifications or access to a chatbot (EY, 2022).

The security of processes is also mentioned. It is sold as being non-invasive and not burdening the internal system (EY, 2022). Most importantly, it is said to not make mistakes or subjective interpretation of data. The assistant can thus work 24/7.

The solution is said to be fast and inexpensive, although details are not provided (EY, 2022).

4.1.2.2.2 Challenges

The challenges are only minimally addressed by these consulting firms in promoting RPA.

Cap Gemini (2022) mentions that automation still requires that Artificial intelligence, analytics, and automation offer transformative potential, but require integration of data, processes, and technologies. When deployed in isolated use cases at task automation levels, they are not implemented at scale and do not deliver the hoped-for end-to-end process transformation. It is therefore necessary to have a general view of the administration's prerogatives and understand the complexity of the task to be automated. Indeed, the robot only comes to unroll a standardized process and answering precise management rules. It is therefore necessary not to automate blindly and keep the process unnecessarily complex. This is why many firms recommend a phase of critical analysis upstream, or even process optimization, in order to understand and manage this complexity (Deschamps, 2022). It should be noted, however, that many of these complexities are due to the human factor, and more precisely to the fact that human resources are assigned to tasks that are not very stimulating according to EY (Deschamps,

2022). One of the advantages of RPA can be to revalue functions that have become too administrative.

The integration of robots and algorithms is a fear in the face of a potential dehumanization of the relationship between the administration and the citizen. However, the firms present this technological help not as relational but on redundant tasks so that they can focus on improving the human relationship and decision making (Deschamps, 2022).

However, they recognize that it is important to train agents to work alongside this new technology. The human/machine relationship must be thought through beforehand for any project and followed by team support (Deschamps, 2022).

On the subject of budget, EY defends that it does not necessarily require a large budget to start a project, and a complete first wave can be deployed in a few months with a budget of no more than 100,000 euros (Deschamps, 2022).

4.1.2.3 Working with other stakeholders of the field

4.1.2.3.1 Partnership with suppliers

The partnership between the suppliers and the developers was already presented in the previous part (4.1.1.3.2).

4.1.2.3.2 Partnership with local governments

Regarding partnerships with local governments, the sector is still struggling to promote a discourse specifically geared towards the public sector. Many experiments are said to be underway among most groups (EY, Uipath, BluePrism). However, the latter have not yet communicated on the subject.

Although the revolution of the automation wave by RPA has arrived in the private sector, the public sector remains in the experimentation phase (EY, 2022)

4.1.2.4 Foreseeable future of Robotic Process Automation

Although communities are only in the experimental phase with RPA solutions, developers are constantly imagining what the future of public administration could look like.

For Cap Gemini, public services must use the right technology in the right way to achieve agile development and more efficient delivery of public services (Cap Gemini, 2022). Users will increasingly demand an efficient, flexible and reliable administration that allows them to use digital identities for a seamless customer journey. Human skills will then have to be amplified thanks to AI and machine learning (Cap Gemini, 2022).

4.1.3 Local governments

In France, local governments called "collectivités territoriales" include the French regions, departments and municipalities. Although the so-called Napoleonic organization remains highly centralized, initiatives to automate administrative processes must be decided by the community itself. This is why some divergences can be observed between localities.

4.1.3.1 Introducing local governments' profile

In order to allow a fair approach to the profile of its local governments, it seems necessary to first recall a survey carried out by the company Appian on the interest of the public sector in automation projects (4.1.3.1.1). This approach will allow us to put into perspective the findings of the various interviews leading to a more qualitative approach to the subject (4.1.3.1.2).

4.1.3.1.1A first lookout through the Appian 2022 survey

In 2022, a study by Appian was released to shed light on the progress of the public sector in automation (Appian, 2022). According to this study, "80% of public sector decision makers in France rank process automation as a high priority for their organization" (Appian, 2022). However, this figure should be taken with a grain of salt since the automation in question is only studied in 33% of cases in comparison with solutions of workflow (63%), Business Management Process (BMP) (24%), Artificial Intelligence

(20%), Automatic Document Recognition and Classification (22%), Case management (22%) and Process mining (2%) (Appian, 2022).

Robotic process automation solutions are also expected to grow, with a third of respondents claiming to be equipped and with a good margin for growth between now and 2025, with 35% of public sector organizations planning to become so (Appian, 2022). However, this figure does not entirely correspond to our research, since most of these organizations are central agencies with more resources than local authorities. Indeed, the study shows that local government decision-makers are more backward with only 43% of respondents. However, 38% of them plan to adapt or improve existing applications and processes that are already digitized and automated without introducing new tools, compared to 22% of decision-makers from ministries and agencies (Appian, 2022). The situation for local authorities is more contrasted, as automation is often handled via their off-the-shelf business applications, hence their lesser propensity to acquire additional automation solutions, unless they take the step of adopting a cross-functional vision with shared digital process management platforms between business applications (Appian, 2022).

Moreover, its automation solutions do not necessarily concern the management of administrative processes, including the management of user requests and files (citizens, partner companies, etc.), even though this is the priority (Appian, 2022).

4.1.3.1.2 A qualitative review of Local governments

In order to nuance these figures, it seems necessary to conduct a qualitative investigation with local authorities to understand their arguments on the adoption of RPA solutions within their administrative processes.

According to Micorsoft, we can observe recently in the public market a tendency for local authorities to move towards automation and artificial intelligence solutions (see Interviews 3, 4). For some, this acceleration may have started as a result of the pandemic crisis and an acceleration in the digitization of local authorities (see Interviews 1, 2, 3). However, for all, the year 2022 marked a real turning point in the adoption of automation solutions by local authorities (see Interviews 1, 2, 3, 4). However, this automation is still very basic and takes place in the first phase of workflow automation (see Interview 3).

Generally speaking, all of them admit that communication on the subject is still very timid (see Interviews 1, 2, 3, 4). Microsoft admits that their local authority customers are only in the development phase on the subject and that there is a lack of real movement on the

subject (See Interviews 3, 4). This space could limit the process of digitalization of the sector and amplify the gap between the public and private sectors. When questioned, the Yvelines department admits that it does not know of any other local authority in France that has touched on the subject, apart from their own initiative that started in 2020 (see Interview 1). They describe themselves as being at the forefront of departments in terms of digitalization. When we contacted the IT departments of the French regions, major cities, departments and other public service actors directly, none of them responded positively to an initiative involving an automation project with the RPA tool, with the exception of the respondents to our interview (see Methodology).

As explained, the public sector is still lagging behind in the digitization of their administrative processes (see Interviews 1, 2, 3, 4). An automation cannot even be done if the administrative documents are not themselves dematerialized. However, this is still the case for many local authorities according to the interviewees (see Interviews 1, 2, 3).

The Yvelines department testifies that they started from scratch with their first workflow automation initiative (see Interview 1). The tools were 15 to 20 years old. There was no tracking of tasks and processes. To remedy this, the community itself came up with the idea of launching this automation initiative. They did not receive any guidelines or financial support from the central government.

These interviews therefore show a very different picture from the Appian survey of 2022.

4.1.3.2 Selling the Robotic Process Automation Solution

4.1.3.2.1 Advantages

Of course, automation solutions are also being touted by local governments themselves. Local governments are witnessing a real optimization of the work of the profession thanks to an efficient management of the intense volume of files (see Interview 2). Thanks to the dematerialization of files, they observe a more flexible, transparent and open management of citizens' files. It allows public workers to have greater visibility on the files and to have a precise follow-up on the management of these files. Thanks to an effort to standardize, the information is more reliable and provides greater transparency, especially for managers (see Interview 2). The tool is also an essential factor in guaranteeing greater impartiality in the administration. As the software is unbiased, it guarantees that users

will have fewer biases in the progress of their home. On social files like the one of the Yvelines department, this argument is very important for the users (see Interview 2).

This ease of use also has an impact on users, who see a real impact and improvement in the administrative process. Their response time is notably shorter, and they can benefit from new digital functionalities such as electronic signatures (see Interview 2). Yet, this statement cannot be strictly confirmed as they do not dispose a satisfaction survey of the administrative services from the users (See Interview 3).

The community also praises the implementation of this system, which did not require any developer following the choice to adopt a "low-code" solution. The adoption by public workers was therefore easier thanks to a very intuitive system that did not require long training days (see Interview 2). Moreover, thanks to a precise definition of their needs, they succeeded in partnering with their developers and suppliers to finish this project on time and on budget.

4.1.3.2.2 Challenges

However, local governments have also been challenged by a new process within their organization.

Although the solution was designed to offload the work of agents and optimize business processes, a review of the administrative organization of these organizations is often necessary (see Interview 3). Indeed, administrations have many processes with little added value, including many manual tasks such as user data entry (see Interview 3). In order to limit these tedious tasks for agents, it is necessary to adapt their way of working to the new tool. Thus, many administrations have begun to adopt the Agile and Scrum methodologies in order to adapt to the needs of technological tools and learn to work efficiently with them (see Interviews 1, 3). This new way of working allows them to acquire rigor, gain flexibility and guarantee the involvement of everyone in the process (see Interview 1).

However, this new organization can be one of the major obstacles to the successful adoption of an RPA solution. Indeed, due to psychological barriers, agents may feel threatened by the arrival of these new tools. The department of Yvelines testifies that the first difficulty was absolutely not technical in their adoption in especially organizational with the adoption of the Agile methodology and the creation of a common process. The implementation of Agile required 2 months of training for the agents to adopt it properly, whereas the presentation of the RPA tool only required 2 days of training. Yet the

inclusion of the business in the agile processes is said to have been the key to the success of this technological transition (see Interview 2). These new processes have brought transparency to the agents and reassured them of their involvement in the administrative process (See Interview 2). This is why the training part is crucial in order to facilitate the acceptance of the tool by the agents.

Obstacles can also come from the highest levels of local government. Although senior officials can sometimes be at the origin of these automation initiatives, they are sometimes blocked by organizational, new regulation or internal policy issues (See Interview 2). These blockages increase the amount of time spent on project development. The solution that was once provided can quickly become obsolete because of the time it takes. As an example, the new GDPR legislation has given rise to numerous questions and updates in the treatment of user data and its use by the automation software (See Interview 2).

As for the price of the software, local governments generally do not consider it a barrier to innovation. Public sector entities do not generally perform profitability and productivity calculations like the private sector (See Interview 1, 3, 4). The ROI is not an obsession of the public sector, which prefers to focus on the quality of the service provided to users. This race for profitability can be seen as a brake on investment in the private sector, which will only look at making money, whereas other aspects of their services enabled by the products can also be seen as long-term gains (quality of service, employee loyalty, future innovation prospects, etc.) (See Interview 4). In the end, the public sector is mostly focused on the issues and challenges surrounding their agents and how to help them modernize to meet the expectations of tomorrow's citizens.

4.1.3.3 Working with stakeholders of the field

4.1.3.3.1 Partnership with suppliers and developers

Partnerships with suppliers and developers are often seen by local governments as two sides of the same coin. Public agencies often have access to suppliers through their developer partners and the latter cannot envision successful technology transformation for their customers without developers (See 4.1.1.3 & 4.1.2.3).

Local governments attest that choosing a partner is crucial to the success of their automation project. The representative of the Yvelines department advises to know one's

needs and to define them well (See Interview 1). He testifies that he had recourse to a consulting firm in order to obtain different contacts of developers and suppliers, to follow them in the Benchmark process and to obtain a synthesis of the information of each candidate. This Benchmark was based on the selection criteria previously defined with the administration teams. After shortlisting the candidates, they were given a demonstration by the selected partners. This was followed by a POC (Proof of concept), a mock-up and precise specifications to guarantee the right deployment of the automation project (See Interview 1).

They recognize that the success of these partnerships has been the involvement of the teams in trying to understand the work of the agents in the field and to understand the obstacles to their activity. Then, the solution must be well defined in order to succeed in unifying the treatment processes. Finally, successful management of the teams and a federation of actors around the project is crucial to guarantee a satisfactory automation for the local authority (See Interview 2).

4.1.3.3.2Partnership with public sector entities

While some local governments are already interested in RPA technology, they face challenges in partnering with different public sector entities.

Too often, RPA initiatives come from the local government itself without coordination between the different levels or central government (see Interview 1, 3). Indeed, it is quite rare to observe an agreement between the community and the State (See Interview 4).

This recognition of the need to automate processes is fueled by the existence of diverse, non-interconnected environments, both among large State administrations, which have very specific and compartmentalized business applications, and among local authorities, which are often equipped with software solutions from publishers whose interoperability is not there (Appian, 2022) Indeed, in terms of local authorities, not everyone has the opportunity to commit to them at the same time or at the same speed (Deschamps, 2021). It is often the same territories that are slow to invest in their digital transformation and therefore the same users who suffer from a lower quality of service. For example, local governments do not have any financial support for their innovation projects, so they have to use their own resources to benefit from the software (See Interviews 1, 3).

This lack of coordination between departments creates a difference in treatment between users. Although local governments are free to use the automation of their choice, the standards used and the prices charged are very different from one administration to

another (See Interview 3). EY recommends the development of common assistants for procedures with standardized national reference frameworks, or even shared purchases to help smaller communities get through the process (Deschamps, 2021).

4.1.3.4 Foreseeable future of Robotic Process Automation

However, local governments are hoping to go even further with this type of tool (See Interview 1). RPA projects have been multiplying in recent months and its impact is beginning to be felt in the public sector.

But to support this technological revolution, government agencies need to transform themselves. They need to help their employees become more proficient with digital tools and reduce the digital divide (See Interview 4). The goal is not to reduce the number of civil servants, but to help them grow and provide more qualitative services (See Inteview 1).

But the real future brought by the Robotic Process Automation tool is seen in the possibilities it offers in the service to users. Users will only be able to use administrations via remote services. Administrations must focus on providing a real personalized quality service to the user, which means managing the right file, containing correct and updated information on it, as well as delivering the right answers specific to the user (See Interview 3). Faced with communities, citizens are transforming themselves, changing their expectations and asking local governments to be able to adapt to this (see Interview 3).

However, this does not necessarily mean the end of human contact between the citizen and his local government (see Interview 1, 3, 4). Most Robotic Process Automation software is focused on agent assistance and not on automated decision-making tools. The time for these questions will surely come, but there seems to be a consensus that the world of public service remains human, although it must take advantage of existing tools to make it more efficient (See Interview 1).

4.2 Limitations

Following the presentation of these results, however, it seems necessary to clarify that these results must be taken into account despite the limitations that this research imposes.

First, the scope of the thesis was limited in order to focus on adoption only within France, thus neglecting potential other cases in other countries that have already implemented RPP initiatives within their local government. This choice of scope was also made because of the number of people who responded to requests for interviews and correspondence about the progress of automation initiatives within their administration. Unfortunately, most jurisdictions that already have planned initiatives did not respond to interview requests. This lack of response also justifies the rather broad scope of our research, which does not focus on a specific case study of a single local administration.

Furthermore, due to the in-depth nature of the interviews, as well as further correspondence with the stakeholders, additional interviews with additional stakeholders might have delivered a broader picture on the posed research question, thus increasing the generalizability of the findings. Despite the fact that these interviews depicted valuable insights, the generalizability of the findings was decreased. It can be mentioned, however, that the generalizability of the findings of the interviews can also be questioned. The interviewees have certain biases in their discourse on the progress of RPA. Especially concerning the findings of suppliers and developers, the latter often have to adopt a positive discourse to promote their solutions and demonstrate the benefits of the products and services they sell. Their interviews and publications may therefore appear biased in terms of objectivity regarding local government adoption of RPA.

In this research, the angle chosen was qualitative rather than quantitative because of the responsiveness of the actors and the low maturity of their initiatives. The long-term nature of projects in the public sector produces a difficulty to bring meaningful results in a quantitative form yet. Lastly, to ensure validity of the findings and yet planning for the feasibility of the project, the scope of the data points analyzed was limited to accommodate for the limited time and recourses. Thus, the results of the study could be further enhanced by including more data points to the quantitative analysis. While this thesis circumvents this shortcoming by providing qualitative insights instead, additional quantitative backing of findings can only add to the credibility of research.

Despite the time constraints, the biggest limitation of this research project is the maturity of the tool itself within the public sector. Research in this area is still in its infancy and the majority of the scientists' articles were published during the year 2022. This lack of information has led to a slowdown in the conduct of this research in the face of a lack of cases that have gone beyond the experimental stage. Given those circumstances, further developments in this domain might alter the results considerably. Indeed, the project of transformation of the administration is still very high level and does not yet measure its impact on the work of most civil servants and their users. Faced with a lack of data, there

seems to be a lack of hindsight due to the newness of the technology in this area. Thus, the maturity poses a limitation for this thesis.

However, despite these limitations, some results can already be seen and seem interesting to discuss in order to understand the current state of RPA adoption by French local governments and the trends that are emerging.

5 Discussion

After looking at these results and the limitations that compose it, it seems time to discuss them and try to understand through the PPM framework the factors impacting the adoption of RPA solutions by local governments in France (See methodology).

As a reminder, the push-pull-mooring framework aims at understanding the factors impacting a user's response to a new product. Inspired by social studies on migration, it allows to categorize the factors that push an entity to reject its habit and change its behavior.

Therefore, in this discussion part, we will try to identify the factors that might have an impact on local government's decision to use RPA in France and apply the PPM framework to understand the intention and behavior of those public entities to switch from manual process management to an automated one through the use of Robotic Process Automation technology.

5.1 Push (Negative factors)

According to the tenets of the PPM framework, the findings associated with the Push are relating elements that drive individuals from the original place. They are generally seen as negative factors (Fu, S., Li, H., & Liu, Y., 2021).

Initially, the main immigration factor is the quality of the local government administrative service. At the core of the RPA robot activity, the service of French local government administrations is not known for its quality. Indeed, according to a study by Insee in 2021, one third of adults have given up on making an administrative procedure online (Gleizes F et al., 2022). This is undoubtedly why stakeholders in local government administrative services place this issue at the center of the reasons that push for RPA solution. The motivations for this low quality of service are linked to a great inefficiency of the administration. We have seen in our results that they are often considered too complex and bureaucratic, with a relative understanding of their processes. To this, we can add a certain slowness, notably due to the fact that there are still too many physical files (paper) in the hands of administrators. However, France has begun a major effort to dematerialize administrative procedures since 2017, with more than 85% of procedures now being able to be done online (Ma vie administrative, 2021). These changes in service quality also aim to reduce the number of errors still made by agents and to fight against administrative

slowness. These errors are not only related to the information placed in the files but also to the risk of bias of public agents.

But this interest in automation software also comes with the desire to guarantee a better quality of work for the agents of administrative services. Indeed, an automation of the tasks comes necessarily with dematerialization of the files as previously mentioned. The agents will no longer have to carry out manual tasks that are administratively heavy and with low added value. It could be argued however that this argument is not specific to RPA technology. But it is true that the purpose of the robot is also to support the processing of repetitive low valued tasks and requiring data input. Its arguments are all the more interesting as local authorities suffer from recruitment difficulties due to a lack of attractiveness of the local civil service. A Randstad study of 2022 reports that 60% of local authorities are experiencing a lack of applications for certain positions. There is no doubt that a revaluation of the work of civil servants could reinforce the attractiveness of this sector.

Finally, the need to embrace digital transformation seems to be the last point necessary to encourage local authorities to move away from their old model. The public sector is often considered to lag behind the private sector. Local authorities seem reluctant to adopt new technological tools despite the ever-increasing expectations of users. Faced with the emergence of a wave of data ever larger, the automation of certain processes seems a necessary step to help administrations to overcome this wave. Especially pushed by the sales teams of developers and suppliers, they are encouraged to look at the flaws of their old models in order to ignite a new one. This push for RPA tools is realize also to prepare administration for furthermore transformations in the years to come.

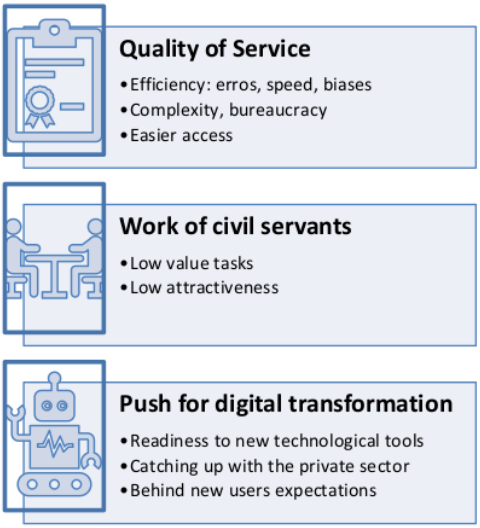


Figure 6 Pull factors for local government adoption of RPA tools

The new elements brought by our thesis seem to be in line with those found during our literature review.

5.2 Pull (Positive factors)

But it is not only negative arguments that have pushed these local governments to take the step towards automation with the RPA tool. The Pull factors represent the elements that attracted the potential migrants to their destination (Fu, S., Li, H., & Liu, Y., 2021).

We can observe that all of them mention the gains in the quality of the service produced thanks to the automation provided by the RPA tool. This is characterized by a gain in efficiency through an acceleration of processes, a reduction in errors made, an objective interpretation of data, but also information arriving at the right place at the right time. This acquired efficiency also requires a greater transparency and objectivity in the interpretation of data and thus an impartiality of the administration towards its citizens, which are essential prerogatives of the values aimed at for good governance (Council of Europe, 2008). However, it can be argued that automated decision making processes may not be free of any bias since humans program them (Borry and Getha-Taylor, 2019). Therefore, a risk of a repercussion of the prexisting bias of its developers may being black-boxed and reinforced in the algorithm.

Moreover, the service can be updated quickly in the face of new legislation (e.g. GDPR) by simply adapting the guidelines given to the robot. Local government actors are focusing on the gains that this could bring to their relationship with their constituents. In particular, a simplification of access to services but also the possibility to add additional features thanks to this tool such as electronic signature.

Suppliers are particularly keen to highlight the ease of use of their software, particularly because of the accessibility offered by low-code RPA solutions for administrations that are not adept with technological tools and do not have developers to spend time on the task.

Regarding the price factor, strangely enough, it is the suppliers who appear to be the most reluctant to propose this argument as a factor of attractiveness of their solution. According to them, the top management of local authorities are not necessarily sensitive to this type of argument. However, this is one of the main advantages of RPA implementation as mentioned during our interview with one of them. This is probably due to the sensitive subject of the reduction of the number of civil servants in the French administration. However, it is at the heart of many political programs during the presidential elections of 2017 (Théobald. M., 2017). Indeed, for some, this argument may also act as a brake since in France, civil servants are employed for life by the civil service. If the RPA robot were to replace their work, they would find themselves reassigned to a different organization or put themselves in the center of a dead end by the public sector. This organization is one of the reasons why public agencies are reluctant to aim for a reduction in the administrative workforce. However, as pointed out in our interviews, it seems inevitable that the administrative body will be subject to a certain transformation in the face of the change in skills and tasks to be undertaken with this technological transformation. In general, RPA automation may very well give a clear and totally hands-on solution that is capable of assisting other measures of digitalization. This solution may have a possibly cheaper buy-in cost and may produce results sooner than typical IT projects.

Concerning the work of civil servants, as mentioned in the previous part, the RPA software will bring the service of a digital worker to the administrations available at all hours and days of the year. This solution is even more interesting because it is not invasive and is not burdening the internal system. On the contrary, it requires the administration to improve its own management and to grant transparency in its working processes. Moreover, the replacement of boring tasks will improve the quality of life of the agents, who can focus more on the social aspect of their work.

A point very much supported by the developers is that the beginning of an RPA project in a local government can also turn into the start of something new. Indeed, they

emphasize that RPA is just one of several automation technologies and that there is a common need to integrate legacy systems. Indeed, they insist that it is up to public managers to make crucial decisions on how to coordinate innovation across multiple agencies, actors, and elements of the bureaucracy. RPA software is only a first step in this technological coordination, requiring public administrators to prepare for the transformation. This includes a need for training on how to make crucial decisions alongside the robot and how to pro-actively plan the management of work with smart technology. From a planning standpoint, planners would have to understand how technology impacts the built environment. It is in this area in particular that developers wish to intervene and accompany local governments in defining these new rules.

Perhaps less visionary or more realistic, local governments are making sure that RPA tools are doing the right things today. Still very few administrations use this type of software and it seems that the efforts to anticipate its implementation are not yet on the agenda. The technology is still very new and it will take some time for the administration to understand its real impact on the work of these agents to want to completely transform the management of administrations.

Yet, it seems important to underline that the arguments of suppliers and developers may be overstating the capabilities of RPA as they are looking to convince clients to adopt their solutions. This phenomenon is described by many experts as ‘RPA-washing’ (Willcocks et al., 2019).

On these positive aspects of the arrival of the RPA tool in local governments, our literature review also seems to be confirmed by our research. Only elements of contextualization specific to the French system can qualify these assertions. Moreover, the hopes linked to the adoption of this tool and the consequences that could follow seem to differ according to the actors involved

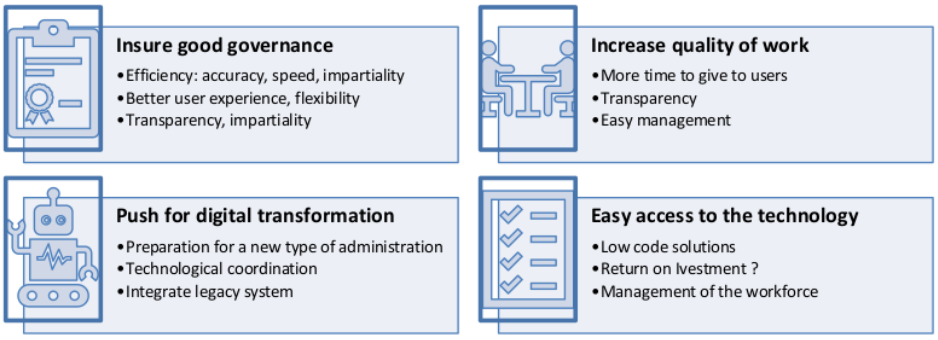


Figure 7 Push factors for local government adoption of RPA tools

5.3 Mooring (decision factors)

The mooring factors are the most discussed when it comes to interrogate the adoption factors. They refer to additional factors promoting or assuaging decision-making various reasons (Moon, 1995).

In order to guarantee a successful adoption of RPA technology, many stakeholders emphasize the need for strong support from the local authority. Indeed, the project should not only be seen as the simple arrival of an asset but requires the development of an end-to-end transformation process (Söderström, F., et al., 2021). Developers and local governments insist on their preparation upstream of the project in order to clearly define the tasks to be automated and the criteria to be met in order to be selected for this type of project. This is significant preparation work that is not necessarily mentioned in suppliers' sales arguments or scientific literature. However, managers need to understand the development of the process in order to give the right perspective to their future procurement contract. They need to combine their technical criteria with planning and management criteria for the introduction of the technology. Managers need to be familiar with the processes involved in implementing and assessing a variety of technologies, as well as the challenges associated with managing such systems. They also need to be aware of the technological items that are now on the market and those that are anticipated to enter the market in the near future. The majority of the technology that is utilized in public affairs was originally designed for another purpose but is now being repurposed for a new function (David, N., & McNutt, J., 2019). This is why a preparation phase is essential,

with the help of the developers in particular, to have the best cards in hand when starting the automation project.

The adoption of the Robotic Process Automation tool relies evidently in the product itself sold by the suppliers. The tool must respond to the previous needs exposed by the local government administration. Many praised the low code Robotic Process Automation solutions as they erase the need for a developer to oversee its development. Indeed, IT specialists are one of the individuals the most difficult to recruit in the public sector (Randstad, 2022). According to the suppliers, one reason of the non-adoption could be also a lack of awareness from the authorities of the existence of this type of solutions. The promotion of the tool is therefore crucial to be seen and then chosen by a local government. Moreover, questions around the data hosting and data management around the Robotic Process Automation software must be reassured to the stakeholders. The integration of the previous data in the system must be a point of attention as the data must be programmed to be compatible with the software used. Concerning the hosting, especially in France, forming a partnership with entities having access to sensitive French government data can be see by some as a risk. It is up to the supplier to reassure they client on their reliability. This point raise also issues link to the security of the software as public organizations are often the center of cyberattacks for their sensible data. Suppliers must also confirm the compliance of their systems to reassure the local governments. All those technical issues must be looked closely by all stakeholders in order to facilitate the adoption of a Robotic Process Automation tool. Nonexclusive to Robotic Process Automation, they also showed the difficulties of adoption a new technological tool in a public administration, and all the important prerogatives needed to be review before (Willcocks et al., 2019).

But successful adoption of RPA automation is not only about successful adoption and implementation of the tool, but also about management changes and true adoption of automation governance. This point was emphasized by suppliers and local governments during our research. A fair partnership between all stakeholders involved is crucial to guarantee the success of the project. This explains why suppliers and local governments choose to go through an intermediary developer in order to successfully create the link between the technological tool and the social management of the administration. They all stress the importance of deploying the tool as close as possible to the agents and paying particular attention to their way of working. As a consequence, It will be necessary for public administrators to make the necessary adjustments and build up their capability for data and information governance (David, N., & McNutt, J., 2019). That is, giving some thought to the specifics of the data and information that will be gathered, including how it will be gathered, for what objectives, who will use it, how it will be utilized, and who

will be accountable for making the decisions regarding its use. A critical technology skill is learning how to make that transition. More complex uses may require changes in the actual technology. From an administration standpoint, public managers would also have to make crucial decisions on how to coordinate innovation across multiple agencies, actors, and elements of the bureaucracy (David, N., & McNutt, J., 2019). This organizational change may include the need to adopt agile approaches and adopt sophisticated terms to understand how to use the advancements in technology and our ability to harness different types of data to solve public problems and advance the public good (David, N., & McNutt, J., 2019).

The psychological barriers is another point of tension in the adoption of any new technology, such as Robotic Process Automation. Suppliers & Developers recommend close support for agents to overcome this barrier. This support can be done through online training of agents to understand the tool, its use and the issues surrounding it. But this training can also include help in using digital tools that can slow down the adaptation of agents. Indeed, in France, this phenomenon would affect 17% of the population, or nearly 13 million people in France, according to a study by INSEE (Vie publique, 2019). A lack of attention on the subject could lead some agents to slow down the adoption process and inscribe a fear of robot replacement among groups of civil servants. Futhermore, this fear could spill over to users who are also less comfortable with new technologies and feel excluded from the public services of local authorities. A real work of accompaniment of all is then necessary.

Public managers must prepare their teams for the confrontation between the administrative and technological worlds and create a serene and welcoming environment for both parties (David, N., & McNutt, J., 2019). Planning a new adoption of a Robotic Process Automation tool, would need to include discussions of how technology might affect all those aspects of development inside the local government.

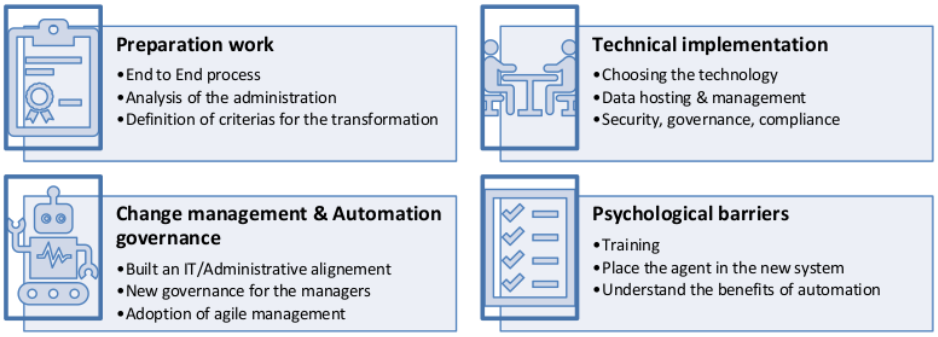


Figure 7 Mooring factors for local government adoption of RPA tools

5.4 Further remarks

Despite this evidence, local government adoption of an RPA solution can sometimes hide less pragmatic decision factors than we have highlighted here.

As mentioned in our findings, digital transformation policy can have a consequential impact on a local government's adoption of a new technology. Faced with a lack of coordination at the national level on the automation of administrative processes, great disparities can be observed between public entities that hinder the delivery of a universal public service for all. Indeed, because of their political affiliation, budget, management culture or center of interest, some local authorities can sometimes seem to lag behind the latest technological trends such as RPA. The department of Yvelines itself raises the issue of being at the forefront of the adoption of new technologies compared to their peers. Some developers are trying to denounce this difference in treatment and the ever-widening gap between some local governments in the adoption of these new technologies. But this difference in treatment also raises a fundamental question: is there a need for a policy of automation of local government administrative centers in France? Indeed, the early adopters of RPA can be seen as voluntary migrants towards an automation of their processes and be in principle happy with this transformation.

But does this mean that other smaller local governments should be pushed to automate their processes in order to guarantee a similar service for all users? Yet this has been the

government's agenda since 2017 in its Public Action 2022 (N.A, 2018) program. But according to a 2018 study by the Association des Directeurs Généraux de France, there are many obstacles preventing its local governments from taking the plunge, either through a lack of a clear enough strategic vision (87%), a budget that is too small to proceed (62%), or a transformation that is not the priority of elected officials (46%) (Malick, 2022). If a policy of automation forced its local governments to leave their comfort zone and migrate to a foreign destination, should they be seen as refugees (Söderström, F., et al., 2021). For local governments, this new virtual relationship will break the physical interaction created with their citizens and so important especially for territories already feeling neglected by large metropolises. These citizens would then see the birth of a virtual relationship that is not necessarily prepared, either in terms of technology (investment in computer equipment and fiber optics), or in terms of skills (training and support for the most vulnerable populations in the face of digitalization) (LaGazette, 2020).

The challenges of automation also raise questions about the human relationship between a citizen and his administration. Already very tainted following the covid crisis, the insimination of the robot in the life of the public service scares many citizens. Although stakeholders try to reassure that RPA solutions only help the agent to make decisions, it is clear that the robot could go further in the future thanks to the support of artificial intelligence and the development of automated decision making. Today, the use of Robotic Process Automation by local government could be place at level 4 on the scale of Stirling (2017). However, a further use of Robotic Process Automation could help those organisations to reach the further level 5: Fully automated system which never requires human intervention. We will then enter to the question of the use a robot without human supervision (Holfmann, 2020). Questions then arise on what ethics to put in place in a public service on the role played by the robot in the relationship between the citizen and his administration, but especially the limits not to be crossed in order not to dehumanize public services (Willems.J. et al., 2022).

But these questions are not only of concern to users, but also to civil servants themselves, who see a risk of profoundly changing the way they work. According to a study by Roland Berger, 40,000 to 110,000 civil service jobs (3 to 8% of the workforce) could be affected by automation (ThinkAct, 2017). The digitization of these jobs should therefore not make them disappear completely, but transform them in depth both in their content and in their operational modalities (work organization, new tools, new internal and external relations). But if the work itself of civil servants is threatened by change, does this not pose a problem for the commitment of these agents to serve the public interest and its

citizens? If the social and human link is then cut during our administrative procedures, will the work of these people still be attractive and interesting?

Finally, his questions about the arrival of the robot in the civil service also raise questions about the status that the robot should have within the administration. If the robot is perceived as a factor that comes to steal the work, does it mean that it works itself? When a robot is working, it produces an activity that can be considered by some as work. Entrepreneurs such as Bill Gates have even suggested that robots should be taxed for performing the most tedious tasks of workers (Arte, 2022). This could mean both an increase in costs for local authorities and a management crisis for civil servants.

Indeed, if we can produce with more and more robots and less and less human activity, then how do we deal with our system of civil servants' work, based on a lifetime dedication to the public organization? (Arte, 2022). This question of the transformation of work does not only pose semantic problems but also concrete consequences. What will be the place left to civil servants who are unable to adapt to new technological tools or whose previous work could be replaced by a new wave of automation?

These questions follow the logic of future technology thinking. This current emphasizes that a new technology can bring positive and negative outcomes. This variation changes according to the use of the technology. Orlikowski and Iacono (2001) write that the IT artifact is emerging from ongoing social-economic interaction. This means that technology is introduced by humans, shaped by the interaction of them and the technology, and thus emerges over time in various ways. This vision shows that the consequences of the entry of the world of automation in the public sectors only depends on what the actors of this automation do. It is therefore up to the administrations and users to decide for themselves the limits of the use of a robot or to transform their organization in the face of the challenges it imposes. It is then up to researchers, politicians, journalists, legislators, civil servants and citizens to claim what world they want for the future of RPA. The latter must especially ask themselves what future adoption will be necessary to keep an optimal quality for the citizens in the delivery of public service by the local governments.

There are still many questions surrounding the drivers of local government adoption of an RPA solution. While these factors seem very pragmatic in light of today's use of technology, the long-term consequences of this adoption are still under-researched and under-considered by those in the field.

6 Conclusion

This study aimed to identify and understand the factors of adoption of RPA solutions by local governments in France. Following several literature searches and interviews with several actors of the RPA scene in the public sector, we were able to observe some interesting results to report to the scientific research on the subject. Our results were analyzed through the PPM framework based on the intentions and behavioral changes of migrants.

We were able to observe that the factors previously identified by the researchers during our literature review were also identified by the actors in the field and seemed to be confirmed. Pulling and pushing factors dedicated to improving the quality of the service offered by the administration and better working conditions for the civil servants themselves were the most highlighted arguments in our results. Many mentions of a desire to push the digital transformation of local governments and prepare them for potential future disruptive technologies were also present.

However, the mooring factors observed are probably the most interesting added value of our thesis. As described by the researchers Fredrik Söderström, Björn Johansso and Daniel Toll, a special attention must be given to the preparation of the upstream work by the local government teams in order to accompany the administration from start to finish. Particular attention is also given to the field agents who according to many would be the key to ensure a successful and mastered adoption of the automation process with the RPA tool. Elements of answers were also brought around some important technical details to check but also to the establishment of a real policy of change management and automation governance to be conducted within the teams of public institutions. As in many digital transformation projects, psychological barriers were also mentioned in order to understand the interests of involving civil servants in this solution.

But despite all its positive results, other important elements seem to have emerged through this research. Indeed, this thesis aims to provide some understanding of the French scene of RPA solution adoption. The aim of this thesis is also to provide elements of comparison with Söderström, F., et al. (2021) ‘s work and the many research on the Swedish case. We can observe that many elements found are relatively similar with what the previous scientific research has find. However, very few concrete cases could be demonstrated on this project due to the lack of maturity of local governments to be interested in automation solutions. Lagging behind the private sector, the discourse on RPA in the French public sector is mainly held for the moment by suppliers and developers seeking to reach the public market. French local governments, on the other hand, are lagging behind and are only just beginning to take an interest in the topic. This

trend seems to be reflected in European scientific research where only the examples of Sweden are analyzed by researchers. This thesis brings additional elements of investigation on the state of the art of the use of this technology in a European country other than Sweden.

Regarding the particularities of the French landscape, our last remarks raise interesting and important points to investigate later on the efforts to adopt automation solutions in local authorities. A divide seems to be opening up between local governments willing to embrace the new tool and other local governments that might be more restrained. It also underlines the questions to be asked about the transformation of the relationship between citizen and admiration which starts with the RPA as a passage from a human relationship to a virtual one. Other questions on the place of the robot within the public entity and the coming upheavals in the notion of work of the civil servants have also been raised.

The added value of this thesis thus marks a first small step towards the larger questions that the consequences of the adoption of RPA will necessarily raise. Lack of awareness of the potential outcomes of automation on the public sector values

It is therefore on all these important points that we call for research to take up this theme in order to bring more clarity to the phenomenon. The world of RPA in the public sector is sorely lacking in examples outside Sweden to understand the phenomenon. Although papers on the subject have developed strongly during 2022, the following years will have to accelerate this trend by multiplying case studies across European administrations. A revival of our methodological approach could be particularly interesting via a focus on a particular local government. The information found and the hypotheses put forward during our discussion could also be confirmed or refuted through quantitative research among the different local governments in France.

According to André Gide (1897), to "choose is to renounce". During our research, we focused mainly on actors who were in favor of the transformations that RPA technology could bring. Despite mentions of risks and challenges in their speeches, none of them mentioned that the technology could be voluntarily rejected by local governments. This hypothesis is not just fictional since it is already at the heart of the French political scene. Indeed, in a speech by President Macron (2018), he uses the term "Gaulois refractory" to address the reluctance of a part of France to digital transformation projects. At a time when everyone is pushing for greater digital transformation, how can we convince those who refuse? Our research may not yet help to convince this category of group, but it does provide arguments for researchers and practitioners to support the automation project.

But the most essential element for this research topic is to question the changes that RPA could bring when its application is more mature and extended to several actors. Its impact on the work of civil servants will be paramount in determining whether its adoption would actually threaten their work or simply require transformation and support for the changes made. These transformations should also be observed from the perspective of the relationship between citizens and their administration and the expectations they have of its evolution. Even further, researchers could consider building a framework on the role played by the robot within the public service. What would be the consequences related to the latter when RPA will be used to create automated decision-making processes. What will also be the future of the work of civil servants in this field and how will it affect the job market in the public service?

The robot revolution is a very deep-rooted idea in mankind since the upheavals created by the various industrial revolutions. The changes driven by new tools such as RPA are exciting for some people who are passionate about the possibilities it offers (volunteer migrants) but can frighten others who feel more abandoned by a world that keeps evolving and dehumanizing (refugees). RPA today will probably not be the great revolution professed by popular culture but should surely mark the opening of a wider discussion on how to deal with the consequences of its adoption within our public service and especially society.

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The abbreviation Hrsg. is replaced by eds. and the abbreviation S. is replaced by pp. in English-language works.

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Appendix

A Transcription Interview 1 – Département des Yvelines –Marc Phimis (M) & Juliette Dumas (J) – (French)

J : Donc peut être pour commencer. Est-ce que vous pouvez vous présenter rapidement et me décrire votre poste actuel ?

M : Donc je suis Marc, je suis chef de projet au sein du groupe social du département des Yvelines. Et je mène des projets autour du CRM et de tout ce qui concerne les outils de ce management. Le but, c'est d'améliorer les processus et avoir des applications les plus en adéquation avec les attentes métiers et et pousser vers l'avenir. Voilà.

J : J'ai vu que vous aviez justement lancé une initiative de RP à dans le travail de l'administration dans le département des Yvelines et je voudrais vous poser quelques questions en premier sur le lancement du projet.

M : Tout d'abord, je tiens juste préciser, c'est que nous, on n'a pas fait du RPA on a plus mis en place des solutions de BPM. Voilà donc entre guillemets, c'est du BPM dans le sens où on a des systèmes de gestion de processus très avancés, très aboutis. D'accord, on appuie sur la la solution à pian la RP à pour l'instant on n'en fait pas. Peut-être qu'on en fera demain. Aujourd'hui, on vise à automatiser des traitements pour permettre de mieux d'analyser les dossiers. Chaque dossier étant spécifique c'est un vrai travail de volumétrie. Alors que, alors que le RPA ça me servait plutôt à faire des traitements de masse ou voire d'analyse, business ou de valeur de données, alors qu'aujourd'hui on est pas encore la, on y viendra demain, mais aujourd'hui on est en traitement des traitements de l'automatisation de certaines traitements manuels, d'accord pour décharger les agents, mais le but du jeu, c'est de passer moins de temps à analyser des dossiers.

Voilà donc on automatise tous ces traitements de notification. Et également toute une partie urbanisation et de demat au tous les dossiers. Donc en revanche on n'a pas mis dans le vrai sens du terme du RPA on sait aucun a du volume mais c'est chaque cas est un ca particulier donc on n'a pas une automatisation.

C'est plus du traitement individuel avec un niveau des processus pilote. D'accord à dire en faut, bien précis et et toute gestion de notification et de d'urbanisation autour pour pouvoir dire, je dis le document automatiquement. Je l'ai commencé en PDF, j'envoie des courriels cryptés automatiquement. Donc tous ces traitements peuvent manuels qui nécessitent, je dirais une qui n'a pas de vraie valeur ajoutée au sens agent.

Voilà pour faire des relances automatiques où, suivant des différents scénarios ou des voilà où ont plus de pas, pas de marketing mais plus de de l'information vers les usagers, voire les agents des traitements de masse. On touche à toutes les tâches faciles, rébarbatives et cetera.

D'accord et tous les traitements donc de avec 2 volets donc tous les tasses Manuel, les automatisés des contrôles avancés, des traitements et des processus qui se traitent sur différentes étapes et à travers différents agents, des systèmes de notification d'événements, de tâches complètement pilotés par l'outil ou par attarder.

Je ne sais pas si sur la France on est la première collectivité. Je travaille avec eux, d'accord donc on est un peu précurseur. Je crois qui continue à avancer avec d'autres en termes d'analyse avec d'autres départements d'accord ?

Dans la partie BPM est, on éprouve, l'on considère qu'il est un très bon niveau, avec un aspect interopérable avec l'existant, du SI qui apporte une vraie valeur ajoutée. D'accord donc on nous balise énormément. Par contre la RPA On y viendra. Là, je vois le commercial semaine prochaine pour passer le Nokia en a un contrat de tri annuel qui se tient bien à la fin de l'année donc on a reconduit le contrat et inclure parce que la partie RPA est arrivée en cours de projet, donc voilà donc y a la partie RPA donc faut qu'on voit comment on inclut. Ils ont aussi le CE qu'ils appellent le process mining, capacité à analyser les processus en termes d'utilisation. On optimise tout ses processus métiers.

J: Quel est selon vous le niveau de digitalisation de votre administration ?

M : On est parti de 0, je dirais que on a, ils ont des outils un peu anciens qui ont qui initialement, qui ont peut être 15 ans en 20 ans, qui permettent de répondre aux besoins qu'ils ont fait évoluer avec les release ou moins, y a des prestataires qui sont en charge, des éditeurs qui sont chargés de ces outils qui les ont fait évoluer. Y a pas suivi de tâches, on peut pas être un processus en cours. C'est un processus suivant des pleins de conditions. On met en place du BPM, on met en place des processus, on automatise tout le flux, traitement des dossiers avec un suivi de de très haut niveau sans intervention humaine. Vous dire ouais mon dossier, qui c'est quoi a fait quoi au ? Et cetera et cetera. C'est la première application d'accord

Voilà, on a on a, on a la première mise en prod, en janvier 2020. On l'a déjà fait 2 chantiers, là on va démarrer un 3e chantier voilà et.

J: Avez vous observer une augmentation de la demande de digitalisation depuis la pandémie du covid 19 ?

M : on fait comme on était en en phase de fin de développement de premier chantier qui arrivait le COVID. Donc on a fini toute la partie réalisation testing les UAT les tests utilisateurs avancés mis en production pendant le COVID.

Voilà donc ça, ça tombe bien beaucoup beaucoup de personnes en télétravail. Donc le fait que y a le BPM de tous les processus avec les notifications. Ben quelque part l'application a beaucoup aidé. On a suivi d'avancement des dossiers donc ce sont des cas assez pratiques

Ce type d'outil a eu un vrai succès auprès des utilisateurs. Voilà donc pendant le COVID et comme on est en mode agile pour la conduite du projet. C'est du Scrum Scrum plutôt, on a gardé une partie des cérémonies mais pas tout.

Ouais, oui, ça s'adapte, on a fait ce qu'on peut pour s' adapter et voilà

Donc on a pu avancer tout à distance, hein ? Les développeurs, les testeurs,

J : vous avez dit qu'il y avait 3 gros projets, 3 gros lancements qui avaient été mis. Qui a lancé cette cette initiative ?

M : Département des Yvelines. Ils ont des outils un peu anciens qui gèrent des des dossiers. j'ai pas de complétude mais d'automatisation et on voulait également optimiser des aspect métiers comme le temps de répondre un dossier.

Ils sont disséminés, invités, des managers disséminés dans tous les départements mais qu'ils aient une capacité à avoir une vision globale de l'avancement des dossiers et aller dans un dossier, voir ce qui se passe sans pour cela avoir l'agent qui traite le dossier en face à face d'accord, donc tu leur permet d'avoir une grande visibilité sur l'avancement du dossier.

Ils peuvent signer, ils ont des documents à signer sans pour cela, aller voir les secrétaires ou des dossiers où sont les papiers à signer, et cetera. Tout ceci a été dématérialisé donc ça leur permet de piloter le leur dossier de façon plus aisée, plus aisée, plus facile mais. Temps de réponse de prendre dossier pour les usagers, les citoyens et également une efficacité et la capacité à rester. Tableau de bord automatisé de tableau de bord d'avancement, voilà donc amélioration pour les usagers.

Donc c'est une première en terme de temps de réponse et de fiabilité des processus dans le sens où on avait des on a des traitements standardisés, d'accord quel que soit le lieu, quel que soit l'argent, donc des traitements standardisés. Et Deuxièmement, une capacité à avoir un suivi précis des managers des dossiers.

J : D'accord, donc j'imagine, ça veut dire aussi plus de transparence pour les managers et aussi les usagers de qu'est-ce qui se passe dans les procédés ?

M :Tout à fait, les contrats se construisent ensemble. Ils peuvent signer les l'usager en temps réel pendant dans le Bureau, ils valident tout ensemble. Il transmet tout manager, donc y a toute une, une grande transparence, on est structuré.

Par secteur dans certains cas, certains agents peuvent se remplacer. Toutes les informations des dossiers, les contrats d'entretien, et cetera, sont dans l'outil. Donc on peut à tout moment avoir une vision, une vision d'ensemble sur un dossier sans pour cela avoir à questionner le l'agent qui a traité.

J: Et pour la réalisation de ce projet, est-ce que vous avez bénéficié d'une aide financière particulière, à part le budget de la collectivité ?

M : Non, je, je ne sais pas. Je ne sais pas à priori. Non

J : Comment choisissez vous vos partenaires lors de ce type de projet ?

M : lorsqu'on a le projet, on savait où on allait en termes de besoin. On avait déjà l'expression de besoins définis, on est plus parti sur un benchMark, on s'est fait accompagner par un cabinet de Conseil.On avait nos critères d'accord, on avait nos critères de choix et eux, ils avaient les contacts et faire tout le process de benchmark, de suivi, d'appel au rentré les informations faire des synthèses donc il nous a accompagné.

On a fait les démos, on a fait aussi des POC (Proof of concept). On a shortlisté. On appelle défini de certains traitements bien particuliers qu'on voulait automatiser dont en particulier la signature électronique.

En terme de réponse aux besoins métier. Ils ont été performants, voilà en très très peu de temps, on l'a. En plus, on l'a fait en mode d'agile. On a fait la maquette, cahier des charges léger du métier, on a déroulé et ils ont présenté et puis tout était content. Voilà on te dit bon c'est le produit qui nous va.

Voilà, alors après il fallait contracter après avec l'éditeur

J : Quels défis avez-vous vu faire face dans la mise en œuvre de ce projet ?

M : Dans les faits bon, peut-être qu'il y a des freins métiers pour, dans la partie expression de besoin ou de difficultés. Bon je dirais, mais moi je suis en input, j'ai l'expression de besoin. Je pense que les difficultés au niveau expression de besoins sont que tout le monde a ses petites habitudes, règles… Donc avoir un processus commun.

La difficulté est d'inclure le métier dans les processus agiles. On les a mis en place doucement. On a fait pendant 2 jours une formation de l'outil présentation de l'outil avec son potentiel pour qu'ils aient une vision un peu plus large de ce qu'on peut faire avec l'outil. Je pense, a été très intéressant, on va voir le potentiel via une petite formation plutôt orientée. On a pas eu besoin d'engager un développeur, on attend de voir ce que ca donne. On fait du low code. On commence par des petites chose comme les tableaux de bords, les workflow… Parfois il y a des petits bouts de code à faire mais on verra.

On a pas eu de freins mais plutôt des difficultés de conduite en agile, suivre la rigueur, le testing, le sprint donc l'implication de chacun

Donc on a fait en 2 mois et tout le monde n'est pas sous pression mais motivé et impliquer. Un vrai succès. Le but était vraiment d'être au plus près du terrain avec les agents qui voulaient type d'outils et en plus le besoin de le valider au plus au plus près des agents.

Donc ça a permis de fluidifier la partie acceptation, donc la conduite du chemin est un peu plus facile. Après, c'est plus du projet en mode agile et la gestion de projet ou c''est à moi de faire en sorte que ça qu'on arrive dans le temps imparti, dans le budget défini, et cetera et cetera, voilà.

J : Comment on réagit les bénéficiaires de ce nouveau système, tels que les travailleurs sociaux ?

M: Ils ont plutôt bien réagi à ça. Il y a une vrai confiance côté des usagers. Je pense que quelque soit le l'agent qui reçoit Ben on travaille sur un outil, donc process reste similaire peu importe l'outil. Tout cela dépend de l'agent. La procédure est la même, juste plus souple, transparente et ouverte. Les agents préfèrent en principe. Ils sont très content. Ils voient ca comme un outil qu'ils n'ont qu'à paramétrer.

On a un processus métiers qui est voulu par les utilisateurs avec une utilisation intuitive.

J : Pensez vous que cette initiative peut s'étendre à tout type de process dans l'administration ?

M : Je pense que oui, mais il y a le problème qui se pose, c'est la conduite du changement. Les gens sont habitués à certains outils, mais ne sont pas performants. Donc il y a une difficulté là. On a d'autres projets dans les boîtes hein, on verra dans l'avenir pour ouvrir sous d'autres directions, pas que le social. Mais je dirais qu' il faut une volonté un peu plus haut dans la hiérarchie ou abandonner serait bloqué pour des questions d'organisation. Et donc on leur dirait votre solution est obsolète et elle a rendu des services c'est bien mais on peut faire mieux donc je pense que c'est y a pas de volonté depuis tout en haut pour dire il faut faire de la peine partout. Certains outils ne répondent pas aux nouveaux besoins.

J : Pensez vous que cette initiative a été mise en œuvre pour préparer l'administration à d'autres changements technologiques ?

M : On est parti tous les outils qui sont modernes, on est un peu une tête de point en termes de technologie dans notre département en France. Donc là on va toute la partie signature, mise en gel automatiquement, inclure par exemple la partie gestion électrique de courrier et cetera et cetera. L'outil nous permet d'avancer et suivre les évolutions technologiques. Il n'y a pas de frein en interne donc on fonce.

J : Pensez vous que certains procédés administratifs ne peuvent pas se prêter à cette automatisation, pour des raisons d'éthique plus que techniques ?

M : Je dirais euh Oui et non. Déjà, on a tous des contraintes avec le RGPD, le partage d'informations. Une contrainte est une nécessité donc ca peut être une frein à des applications ouvertes et au partage.

Après, en termes d'équité, cela dépend si on parle d'équité entre agents ou dossiers. Certains disent qu'enlever le facteur humain peut être un danger parce que l'administration se doit d'être impartiale sans biais et que non je ne pense pas faire confiance à l'algorithme plutôt qu'un humain. Après y a 2 écoles. Je pense que pour l'instant on laisse un grand choix de décision, c'est encore l'humain qui décide et non la machine bien qu'elle les aide à faire ce choix. Je pense que de toute façon nous ne sommes pas encore là en terme de technologiqJe pense que le social reste à l'humain et il faut garder cela. Quitte à ce qu'il y a des outils qui les aident à être plus performants.

J : Avez-vous des dernières remarques à partager ?

M : Première chose, c'est être au plus près du terrain. Lorsque vous définissez votre besoin, c'est le plus important. Réussir à unifier les processus de traitement qui sera

commun et partagé par tous. Au final, c'est 90% du chef management en ce qui concerne l'adhésion et c'est primordial

Au niveau des outils, c'est une contrainte également. Nous on choisit l'outil car il est bien. Par contre l'éditeur n'a pas forcément la disponibilité des ressources et surtout des temps de réponses. Prenez un outil mais faits attention quand vous avez des intégrateurs sous la main disponible qui ont la maitrise et la formation adéquate.

J : Pensez vous que le travail des fonctionnaires va se transformer ?

M : je pense que la machine va pouvoir les aider et apporter des solutions permettant d'avoir des portails vers les usagers. Ils auront accès chez eux à ces informations. Il y aura de moins en moins de centre d'appel téléphonique par exemple. Le but n'étant pas forcément de diminuer le nombre de fonctionnaire. Mais les outils sont la clé pour faire sentir une notion de service à l'usager. Ce n'est pas du service usager mais du service aux usagers. Le but est de fournir plus de services et de meilleure qualité. Leur donner accès à la bonne information, au bon dossier et leur offrir une réponse juste et à la bonne personne.

Je dirai que si cela conduit à avoir moins de fonctionnaire, c'est dans l'ordre des choses. Le plus important est le service que nous produisons. Concernant le besoin de formation, il y aura forcément moins d'agents mais sans doute plus d'agent à valeur ajoutée.

B Transcription Interview 2 –Osidoc –Maurice Calvo (M) & Juliette Dumas (J) – (French)

M : Notre solution se positionne dans tout ce qui est automatisation de process métier autour des documents. On est une petite structure de 15 personnes et on équipe des grosses structures de 5 utilisateurs jusqu'à plus De 40000. Voilà donc c'est la même solution. Alors au niveau positionnement de la solution, c'est un petit peu complexe que je vous montre ici. Vous avez un client ? Ça peut être l'administration et une mairie, et cetera, mais aussi va couvrir tous les process documentaires associés. Je dirais au back office. Non, ici retraite, une demande quelconque et je vais répondre. En lui disant, Je fais suite à de à ta demande et j'ai l'honneur aussi donc va avoir une techno qui va permettre de dématérialiser tout ce qui est document, ça veut dire permettre une validation poste de travail. Et éviter tout ce qui est. Ressaisi, ça veut dire que si je fais un document, il est porteur de données, c'est données, je dois les mettre quelque part, d'accord ? Ensuite, ici, je suis plus. L'usager, bah il formule des demandes, il fait des des demandes à la mairie, et cetera. Et donc nous y va. Se positionner en frontal des applications. De la mairie ou de la de l'administration de la collectivité locale ? Et on va directement initier tous les process de back-office à travers les demandes.

Donc, ensuite, on va également alimenter des canotiers. Je prends un exemple ici, je fais une demande d'extrait d'acte de naissance. Je vais récupérer la demande où ça va être traité en automatique si je fais du RP 11. D'accord, mais on va aller alimenter la Business Intelligence, on va faire 1+1 sur une nouvelle demande d'extrait d'acte de naissance, donc ça veut dire à chaque fois qu'il y a un process. Ce process va véhiculer. À la fois. Du ou des documents ? Également de la data. Le détail très importante, ça veut dire ici on va dire, le demandeur n'a pas d'adresse mail donc c'est bien, on ne sait pas. On va lui demander d'imprimer l'extrait d'acte de naissance. On va lui mettre 1+1 dans la Business Intelligence et on va aller dans la Jack. C'est la gestion électronique de documents pour stocker l'extra. Date de naissance en cas où il est redemandé, et cetera et cetera. Donc l'automatisation est une automatisation de bout en bout entre l'initialisation du process jusqu'à la prise en charge et là validation du processeur.

L'automatisation est à 100%, il y a plus d'intervention humaine.

J : Vos clients préfèrent ils une solution sans intervention de l'agent ?

M : Moi, je dirais, on est une solution méconnue. Ça veut dire, je suis un technicien, donc j'ai fait un outil pour me faire plaisir et ça marche. Donc on était les précurseurs de de ce

type. Pourquoi ? Parce que on parle de légalité, qu'on parle de RPA. On parle de beaucoup de choses, mais là, on est vraiment des vétérans de domaine.

Alors je vais vous montrer un petit peu. On va se déguiser en usager et on va voir le résultat. Alors ce que je vais vous montrer, tout a été fait par des acteurs métiers, ça veut dire, c'est le métier qui implémente l'ensemble de ces process. On n'a plus besoin. De l'i T. Ça, c'est le premier point des outils comme le nôtre. Si on prend des concurrents dans le domaine. On va avoir des outils dits d'outils. Qu'on appelle ça ? Et on a des des acteurs comme open text, dans des mastodontes nord-américains.

Le produit est localisé en une langue, ça veut dire, on peut avoir, je suis marocain, je je viens avec en arabe et d'instruments. Des documents français d'accord, on va avoir un user mot de passe, donc là on va se connecter à des annuaires d'entreprise si vous voulez, alors je veux faire mettre à gauche Oui bon, ça fait directement c'est. J'ai le formulaire qui apparaît d'accord, ici on est en Belgique, on a formulaire en français. En anglais. On est irlandais, et cetera, d'accord ?

Donc je vais me remettre dans une administration. Alors on va prendre ? Je l'ai chez les demandeurs d'emploi, d'accord ? Back-office et on me fait une demande de prolongation de mes droits, donc ça veut dire sans aucune formation, je vais pouvoir initier les formaliser tout le process. Donc je vais directement. Faire nouveau, alors juste pour le fun, ici, je vais faire siège. Alors, le premier objectif, c'est dématérialiser le papier en-tête, supprimer les imprimantes locales, supprimer les Word locaux et supprimer des services courrier. Vous voyez un. Peu le oui.

Alors pourquoi on va ? Valoriser l'utilisateur, c'est d'une part on va l'auto former à travers l'usage de l'outil, ça veut dire l'interface va lui montrer tout ce qu'il va faire. Auquel il va répondre, il le pendant de fondation ici pour supprimer le papier en-tête, on va directement valoriser l'un des 10000 pieds de page des 10000. D'accord, ça veut dire il. Y a plus. Besoin de d'aller mettre le papier en-tête si c'est de la couleur, si c'est du noir et blanc, tout se fait automatiquement et on voit directement les heures d'ouverture et cetera. D'accord ?

J : Quel est le retour de vos utilisateurs ?

M : Généralement, on fait une expérimentation pilote avec quelques utilisateurs. Je prends un exemple en bancaire. On a un groupe bancaire qui est équipé de 5000 portes, on a fait un pilote avec 800 postes et 3 modèles, 3 grossesses. Il y avait une émeute à la fin de la maison. L'utilisation dans le sens. Ils avaient pas assez de choses. D'accord, donc faut. Dire que sans aucune formation, ils vont pouvoir. Se valoriser, ça veut. Dire de faire

toujours de la qualité. Sans se faire engueuler et en. Plus ils vont vite. Donc c'est une. Valorisation d'appel ça, la TVT, qualité de vie au travail, qui est générée par l'outil. C'est un peu le monde à l'envers, mais. C'est comme ça.

C'est justement le but, aller plus rapidement en ce moment avec les administrations, et cetera donc du coup, est-ce que vous avez observé des réductions des coûts administratifs ? Du coup, vous parlez de dématérialisation, d'aller plus rapidement, et cetera.

Je l'ai jusqu'au bout, vous allez tout comprendre, toute seule. D'accord, ici, on va choisir une demandeuse d'emploi, on va se connecter à la base de données. Nitration et on va remplir tout ce qui concerne la demandeuse d'emploi. D'accord, c'est une base de test, c'est mon épouse. Donc ici on va dire, je réceptionné la demande. Aujourd'hui. Y a toujours le mode d'emploi, hein ? Si je vais aller directement voir dans le chrono ? Dis attention, il faut 12 caractères, pourquoi 12 caractères ? Parce que cette information va aller dans différents canaux dont la gestion électronique.

Donc ça veut dire on va intégrer des contraintes Technique qui sont complètement naturels à l'issue de l'utilisation. Ici, on va faire de la sécurisation de présentation, ça veut dire, quelle que soit la saisie, c'est toujours en majuscule parce que on est dans une administration et on a toujours la même. Tête au niveau du document. Donc ici, je vais répondre avant d'avoir. Reçu le courrier. Le système se. Fout de moi. D'accord, la règle m'était peu probable. C'est le même jour, donc on va dire le même jour si je fais suite à un coup de fil, si je fais suite à un courrier. Et là, on va traiter toutes les variantes du process, ça veut dire avant aux idoles, on avait une cinquantaine de modèles pour répondre. Aujourd'hui, on est uniquement dans le process, c'est pour ça que je parle d'automatisation de process métier. Si je n'espère pas. Si je refuse, et cetera, d'accord.

Voilà donc ici, je vais faire une demande d'information complémentaire et on va voir 2 choses, la première. Parole ne passe pas, je veux dire, on va autoformer à travers l'usage. L'utilisateur, qui ne comprend rien, mais à force d'utiliser va comprendre donc ici on va dire les 3 dernières fiches de paye ou le dernier solde de tout compte je l'ai je veux un justificatif de domicile mais si mon épouse me répond pas avant-hier je la vire et. Oui, pour me dire, attention, il y a une contrainte réglementaire forte qui dit qu'il y a 8 jours entre la demande et la réponse d'accord.

Donc ça veut dire qu'on va intégrer le cadre réglementaire et à travers l'usage de l'outil, on va complètement dématérialiser les choses donc je. Mets du 8 jours. Ici comme on est

en liberté, qu'est ce qu'on va faire ? Bah on va faire du copier-coller pour s'exprimer. Attendez, je cherche un peu de texte. Non, je je prends du Zola. Donc je vais dire ici on va dire, je fais un texte test domine parce que je suis. Intelligent je suis un contrôle C.

Si je suis en collège et ce que je vous montre, on n'a aucun besoin de formation. D'accord, à part. À partir de là, pourquoi on est dans le 100% des matérialisés ? Ici, on va proposer la prévisualisation, je nous documents alors. Ouvrir, empêcher les enregistrés. Ça veut dire que. Si j'ai des droits de valider ce qui est le cas, en l'occurrence, je vais générer du document qui va partir par courriel. Sans papier, d'accord, tu vas aller directement alimenter la base de données APPLICATIVES. Le métier qui va alimenter la Business Intelligence, qui va alimenter tous les canaux, sans aucune ressaisie. Le process peut vous montre durée. À peu près, je veux dire plusieurs mois. Pourquoi ? Parce qu'il y a un engagement juridique. Dans une réponse à une demande de prolongation.

Plus de resaisie. On a plus d'impression pour valider un process, on avait. Des fois 7. Niveaux d'impression, ça veut dire le mec ? Il est hors de d'orthographe qu'on reçoit. Penser chaque utilisateur avait sa propre charte graphique, sa propre police de caractère. Aujourd'hui, c'est. De l'indus pays.

Et puis j'imagine aussi que l'utilisateur, il peut suivre plus facilement son dossier, c'est à dire qu' avant, Ben comme vous le dites devait envoyer par courrier et cetera. Est-ce que vous avez un statut pour les utilisateurs ? Pouvoir Ben votre dossier a été reçu où est en cours de. Traitement et cetera, non.

La partie automatisation document donné, ça veut dire que on va donner la main. Si vous vous rappelez dans le schéma, si on va communiquer les données en back-office en lui disant, j'ai envoyé le mail, je lui ai répondu, ça démerde-toi.

C'est le RPA due Back Office qui va se débrouiller d'accord. Donc là on est en back-office, dans ce que je vous ai montré. Alors, juste pour l'anecdote, je vais, je vais vous montrer un exemple en fronte.

J'ai proposé à la France de de faire toutes les autorisations préalables de déplacement. D'accord avec le tracing Tracking des informations pour essayer de faire des stats, et cetera, ça vous dit ça ? Pouvez lui aucune réponse. Je l'aurai mis. En ligne ce que j'ai vous montre. Donc ici, on a le formulaire. Alors avant même qu'ils inventent le QR code, on l'avait mis, d'accord. Donc ici je me ici. Vous avez des productions, ça veut dire des éléments saisis avec un statut. Donc je vais reprendre une saisie que j'ai commencé, je suis parti déjeuner. Je reviens donc ici, est-ce que je suis une personne physique ou une

personne morale ? Donc si je suis une personne morale, on demande la raison sociale et si je suis ? Une personne physique ? Toujours avec des des contrôles. Je mets du 2000.

D'accord donc tous les contrôles en. Amont vont être faits. Donc le lieu de départ, donc ce soir vous avez des éléments qui figurent dans l'attestation, mais des éléments qui vont permettre de traquer et de passer la.

J : Est-ce compliqué d'obtenir des clients ?

M : Alors je vais vous montrer quelque chose aussi. J'ai travaillé en pilote pour la police. Dans tout, tout ce qui est. Automatisation de dépôt de plainte alors ? Pendant à peu près 3 ans. Je travaillais avec des commissions, et cetera, et j'ai fait un prototype. Ce prototype. Bah, à un moment donné, on s'est aperçu que c'est tombé à l'eau. Il y avait plus de projets, et cetera. C'était dans le cadre du regroupement de la police nationale et de la gendarmerie. À un moment donné, j'ai un copain qui travaillait chez Thalès. Il me dit, Maurice purée, j'ai, je crois qu'on vient de faire un appel d'offre de ton produit. J'ai dit oui, mais j'ai pas été consulté. C'est devant avec. Que j'avais rencontré à de multiples reprises, qui ont préféré prendre Capgemini. De façon ceinturée, bretelle dans le cas où ça marche pas, c'est pas nous. Voilà ce projet. Je crois, 3 ans après son lancement, si c'est pas 5 ans après son lancement, il y a eu un article. Mais on a dépensé plusieurs milliards sur ce projet. Des nouvelles. Recommencer, d'accord. Voilà, c'est le le marché public. Alors ce que je vous.

Montre ça un. Petit pilote qu'on avait fait pour s'amuser. Ce que je vous montre, c'est vraiment, c'est fait par le métier, c'est c'est pas du tout de l'amitié, et cetera. Donc ici on va faire un dépôt de plainte. On a dû mettre jeudi une journée pour faire ce travail, donc ici une référence. Ensuite, une date de dépôt, et cetera. Dame, c'est une plaignante. Si c'est un Monsieur, c'est un plaignant, Dupont et cetera, et cetera. Est-ce que ce l'infraction ? A eu lieu au domicile du plaignant ou pas ? Et on contrôle sans arrêt avec.

Oui, oui, c'est jamais, il y a quelque chose. Qui ne marche pas. Comment, si jamais il y a une information qui ne peut pas être acceptée, et cetera.

Une personne est une information, on arrête le process. C'est des choix. On peut bloquer un process en disant, la règle n'est pas suivie, on peut faire un warning un warning c'est dire.

Ça marche, ça veut dire. Que ça soit. Du formulaire entrant donc la relation usagée ou de la relation back office et toujours des process documentaires avec ou non des documents, en sachant que le l'avantage.

On va véhiculer de la donnée. En même temps que les documents si on en a besoin, quand on fait des signatures par exemple, on va demander le numéro de téléphone mobile, l'adresse mail de la personne ou des personnes qui vont signer ça ne figure pas dans les documents, mais on va véhiculer l'information pour aller chez dokusan.

J : Est-ce que l'un des points forts de votre solution est d'être au plus pres des utilisateurs ?

M : Exactement. Alors, l'historique, c'est que je suis un informaticien et à l'époque j'animais des équipes pléthoriques jusqu'à 600. Personnes et quand je voulais punir un informaticien, je lui donnais du traitement documentaire. Pourquoi ? Parce que le client final veut des coins carrés de la belle mise en forme, et cetera. Et en tant qu informaticien, tous les outils qu'on avait, c'était la galère. D'accord, alors je me suis dit, on va faire un outil qui va punir maintenant. Donc l'expert métier qui va dire moi, je veux des coins carrés, je veux ça. On va lui dire, Tiens, tu prends le designer de doc et tu te débrouilles. Ça veut dire que, au lieu de surcharger l'informatique par des tâches qui n'aiment pas faire le métier, va s'exprimer, d'accord ? Donc ça j'ai gagné. Ensuite, j'avais énormément de problèmes de. Mise à jour du cadre réglementaire. Ça veut dire que, en tant qu informaticien, j'avais des clients qui me disaient tiens, y a eu une nouvelle mention légale sur la RGPD sur tous mes documents, je te demande de le faire alors je demande un cahier des charges. On négocie pour le prix et les délais et pendant tout le temps que le monde équipe développait. Et Ben il. Y avait un risque opérationnel de non-conformité. Donc d'un côté, j'ai voulu Optimiser les charges de l'informatique et de l'autre côté, rendre réactif le business.

J : Est-ce facile d'adapter votre solution à de nouveaux changements ?

M : Montre rapidement et on va s'amuser, hein ? On forme généralement, on fait des transferts de compétences, ça veut dire on va dire. Un transfert de compétences Haïti, un transfert de compétences métier, le transfert de compétences métier, c'est 2 jours de formation et 5 jours d'accompagner. Alors, selon la typologie des clients, on a des clients grands comptes qui voient oxydantes et 10. On veut rien nous donnent tout à faire et on a qui prennent 7 jours, d'accord ? Donc, c'est ça dépend.

Trouver lire Macron à décider de donner une prime aux demandeurs d'emploi d'accord, je vais me déguiser en designer, donc je vais subir. 2*2 jours les 2 jours, pardon ? Donc, alors l'astuce qu'on a eu pour faire le designer, c'est que le métier connaît Word où Word. Donc on a dit, on va faire une ? Une application qui est complètement Microsoft et de l'autre côté on a des informaticiens que je suis qui détestent Microsoft donc on a fait. Un moteur de production de données de documents qui s'affranchit de Microsoft pour ne plus payer les licences, être RGPD, plein de choses, d'accord. Dans l'administration, alors je vais passer tous les détails. Normalement, on va faire de la de des versions, et cetera. Je vais passer tout. Ça je vais dupliquer. Alors je vais faire le DOC De Juliette. On va dupliquer les 9 variantes de jeu c ça veut dire tous les cas qu'on va traiter. Donc là, vous allez voir, on va. Changer de couleur. Le Vert, ça veut dire, c'est en ligne. Le bleu c'est validé. Mais et qui est pas en ligne et en vert c'est publié, c'est en ligne. Donc ici, je vais pouvoir entrer en modification. Alors première chose, on capitalise autour de Word. Ça veut dire si les administrations du Word, ils vont pouvoir importer du Word, d'accord ? Ensuite, on va mettre un mode d'emploi. Film, Petite anecdote, c'est que y a une direction juridique dans l'immobilier, avec 40000 commerciaux qui a oublié un commentaire sur un champ ? Ils ont eu 15000 appels en une demi-jours.

Donc, ensuite on va avoir des logos. Si le logo de l'administration change, on va le changer ici et tout va changer. D'accord ? Je vais passer tous les détails, on va aller directement demander. Donc chaque groupe est un écran. On va me poser la question de la date de réception. Les références du courrier, la date de réponse et on va mettre des res ? Alors je vais aller dans variables donc ça c'est des typologies de variables, des questions. Des groupes. Fred de réalisation. Il faut que la date de réception soit supérieure où égale, et cetera. Voilà le message que veut donc c'est là où on va former 2 jours. Ici, je veux insérer la primate prime. De Macron, d'accord ? Bon, je vais dire que c'est numérique. Ensuite, on va commenter. La bête électorale.

J : Qui est responsable de ce travail de modification ?

M : Généralement, c'est ceux qui connaît toutes les règles de l'administration. Donc ici je vais dire quelquefois la saisie et je vais traduire de chiffres en lettre en français de France parce qu'on a le français Suisse. Le Français est bête. Le Français, canadien et cetera, et on va pouvoir appeler entre Maxime, d'accord. Donc, à partir de là, qu'est-ce que je vais faire ? Je vais me déguiser en fusion publipostage. Donc là on demande aux utilisateurs métiers de connaître Microsoft, c'est.

Ouais, oui, on a toutes les variables disponibles. Et ici, on a le contenu du texte. L'on a, c'est un peu notre secret de fabriqué. Si j'accepte, voilà ce que je. Mets si je refuse et cetera. On a une visibilité étendue du process et ici on va piloter ça par des règles j'accepte si je refuse et cetera, ce que je. Vous montre même un an. Il arrive à s'y faire. Donc ici je veux dire. Elle a pris bête, Macron, je la mettre la. Rechercher l'imprimante. Oui, voilà. Donc y. A aucun de du nombre de variables, et cetera. Et je vais mettre euros. Non, comme je suis sous Word, je fais ce que j'ai envie du gras, du gros, du Flash, du Centre.

Je râle parce que tout ce que je vous ai montré sans aucune programmation. Donc ici je vais mettre 1500 parce que je sais que c'est là le cauchemar des directions centrales. Il y a bien le s l'honneur est sauf. Et cetera et. Cetera. Je pense que vous avez compris.

J : Comment votre solution s'imprègne dans la complexité administrative ?

M : Moi, je dirais le plus dur pour nous. C'est notre taille. On est petit, alors on a quelques clients publics, grands où petits et on a par exemple une caisse primaire d'assurance maladie. Qui nous utilise ? Sur toute la partie RH qui fait des contrats de travail, et cetera en back office. Et là, c'est la direction centrale qui nous a envoyé dans l'Essonne pour essayer de faire un pilote donc ça a marché et on va peut-être déployer au niveau national.

J : Avez-vous des difficultés en matière de responsabilité ?

M : Quel problème de responsabilité ? Nous, on livre une boîte vide ou les administrations intègrent leur contenu et leurs règles, donc on a pas du tout de contraintes. On se dit, on est un module qui est complètement RGPD, ça veut dire qu'on va véhiculer de la donnée et à un moment donné, si on fait valoir son droit de colza habilité, on a de la techno qui va permettre de chercher les choses. Donc on a tout ce qu'il. Faut dans la. On travaille avec des. Des professions très réglementées, notamment l'assurance vie et est obligée d'avoir de la mécanique qui permette de de, de tout le d'être conforme. On va ?

J : Pensez-vous que l'usage de votre solution va être accéléré dans les années à venir ?

M : Si des administrations commencent à changer de de fusil d'épaule, ça veut dire qu'à chaque fois que ils veulent déclencher un projet, ce projet n'est pas pharaonique. Il a pas de sens. Je dirais, c'est de la politique, y a plus de rationnel dans ce que je vous dis. Je vous ai parlé du projet police. Les gendarmeries ? Il a coûté des milliards. Avec aussi doc. En quelques mois, c'était en ligne, c'était en prod. C'est pas te y a pas de rationalité dans tout ça.

J : Où est-ce que est-ce que vous pensez que c'est aussi une peur, des changements du changement des administrations ? Qui sont habitués à certains process, une certaine façon de travailler ?

M : Objectif, je travaille dans des grands groupes qui travail. Avec les mairies, collectivités locales et les clients de. Mon grand groupe. Étaient des élus. D'accord, donc, l'élu, par définition, il est donc, il est volatile et je ne sais pas si la volonté des élus pour pousser l'automatisation.

J : Est-ce que vous pensez que certains processus que vous avez pu voir ne pourraient pas se prêter à l'automatisation ?

M : Non y a pas de. Et là non plus, c'est que je vais prendre un exemple, j'ai fait 15 aux idoles en spécifique, d'accord notamment au cidoc, à la poste la la grande poste française. Je dirais que quand j'ai commencé en tant qu informaticien dans cette grande organisation, ce que j'ai fait comme Zidane touche 37000 utilisateurs, donc ce qui s'est passé, c'est pour comprendre les process, il fallait que j'aille sur le terrain, donc je suis allé dans des bacs. Office bancaire et cetera. C'était un projet de la poste banque. À l'époque, les cadres, c'était un cadre sup. Ne se mélanger jamais avec le le terrain. Donc ça veut dire qu'il faisait toujours des projets en bureau, et cetera, donc j'ai changé la façon de travailler. J'ai intégré l'organisation opérationnelle dans le développement de ce que j'ai fait et le projet est. Donc c'est plus. La volonté, la manière de faire, c'est pas. Je suis patron du d'une grosse administration, je vais prendre Sopra au cap Gemini ceinture et bretelles. Si ça marche pas, c'est pas moi.

J : Quel a été l'accueil des fonctionnaires ?

M : Tu veux que je vienne au niveau, j'étais. Comme eux par exemple. En back-office, j'ai pris le téléphone comme eux, j'ai rempli des fiches suiveuses comme on appelait ça.

Complètement camouflé dans leur système et à partir de là, j'ai pu m'intégrer tout ça et tant qu'il ne savait pas que j'étais un cadre sup par Ben, il travaillait avec moi naturellement.

On va dire d'accord et ils n'avaient pas forcément peur des changements que cette technologie peut apporter, et cetera. Okay ?

J : Est-ce que vous pensez que aux idées pour justement être les administrations et enfin vos clients ça peut aussi être une première étape pour se préparer à des technologies plus avancées dans le processus des traitements des dossiers ?

M : Moi je dirai aussi 2 qui est un incontournable. Dans le traitement des dossiers. Déjà maintenant, on peut. Sécuriser tous les process autour de vide, c'est. À dire coller. Une signature du contrôle d'identité on va mettre des robots RPA tous les niveaux, ça veut dire si on vous demande votre nom, on va voir que vous avez pas fiché s quelque part, je dis des bêtises, vous siroccos sont dus RPA d'accord. Mais l'automatisation des process, c'est elle que je vous la montre, c'est du personnel, de l'administration avec un process documentaire, le document matériel où dématérialisé et la source du process. Vous avez toujours du formulaire ? Ici, on va faire. Je vais partir même. En Côte d'Ivoire voilà, on a du formulaire administratif, d'accord, ici, on a du surf, d'accord à chaque fois que le support soit matérialisé où dématérialisé. On a besoin de verrouiller, de sécuriser les postes. Et automatisé aussi, ça veut. Dire vous pouvez connecter du RP à. Aussi dur pour dire. J'ai toutes les informations requises pour valider la demande sans demander la signature du chef.

J : Et si vous aviez des des mises en garde annoncées par rapport à cet outil ou des choses difficiles que ça peut être, ça pourrait être quoi par exemple un inconvénient ou quelque chose qu'il faut faire particulièrement attention ?

M : Alors faire attention, c'est, il faut pas faire un cycle en V de projets comme d'habitude, ça veut dire mon ami. Le process à automatiser et on va faire les 1000 process. Avec cozido qu'on a mis en place une méthodologie, cette méthodologie consiste à dire quelles sont pour vos process critiques. On va faire un petit paquet. Quels seront vos process à forte productivité ? On va faire un autre petit paquet et on va dire tout le reste, on s'en fout, on va le. Voir plus tard ce que je. Vous dire, bah générer immédiatement, ça veut dire en quelques jours quelques semaines. De l'optimisation de la sécurisation et du confort, ça veut dire qu'on on va avoir l'adhésion alors le Conseil que je donne, c'est de ne pas vouloir tout faire. En même temps. C'est le seul danger. Et aussi, donc qui est tellement simple de mise en œuvre et de déploiement. On peut aller, je dirais. En mise à jour au fil de l'eau, ça veut dire, on peut automatiser un process, on en fait pas 2, on le met en ligne, on fait le 2e, on fait le 3e et quand on arrivera au millième on sera aperçu qu'il servira à rien.

J : Pensez vous que cette adoption est difficile en raison de son cout ?

M : C'est pas une question de prix.

J : Avez-vous vu une accélération avec la pandémie ?

M : J'ai vu des clients un petit peu. Que je client qui m'a appelé. Un prospect, pardon ? Il m'a dit, Monsieur Calvo, je dois mettre en place l'avenante et les travails. Il n'était pas encore client Ben jeudi, vous demandez à votre informaticien d'être là ? J'envoie mes consultants. Et le lendemain, ils étaient en production.

J : D'accord, donc ça, ça à plus on va dire accélérer les démarches qu'accélérer le nombre de personnes plutôt.

M : Je passe dans le privé là. On a signé avec des notamment la douane. À Toulouse. Mais on a signé au noir, ça veut dire 18 utiliser aussi doc hein. Il est bloqué parce que le patron des nouvelles à Toulouse avait décidé. Bayrou en effet, en procédure. Donc aujourd'hui le problème. C'est que vos idées n'est pas trop connu. Également, c'est l'appréhension de la petite structure. On est une quinzaine de personnes, on traite des milliers d'utilisateurs. Dans le monde. Ça devrait suffire à convaincre les administrations. Mais ça ne suffit pas.

J : Donc vous pensez que c'est pour c'est plus petites structures ?

M : J'irai là, on passe par des éditeurs de logiciels l'éditeur de logiciel y. Le RPA civil d'accord on a besoin. Évident donc, quand l'éditeur de logiciels vend sa solution dans une mairie, Ben il va faire de la prestation via des partenaires. On appelle ça des intégrateurs, mais l'intégrateur, lui pour vendre et mettre en place, il a besoin de Générer de la prestation. Donc comme voisine, DOC est facile à mettre en œuvre, il fait moins de prestations donc ils n'aiment pas. Et on a des grosses intégrateurs, tout c'est grand. Là on est des empêcheurs de prestation. Ça veut dire, ils ne peuvent pas vendre des des milliers de jours comme. Ils le font aujourd'hui donc. Autant à être nié du marché par ces grandes structures.

C Transcription Interview 3 – Microsoft – Christian Nlandu (M) & Juliette Dumas (J) – (French)

J : Qu'est-ce qui a poussé Microsoft justement s'intéresser à cette technologie au RPA ?

C : Il y a beaucoup de processus avec peu de valeur Ajoutée qui sont très présents dans l'ensemble des organisations et encore plus dans les collectivités. Ou tu as encore beaucoup de de de tâches manuelles de saisie des données qui pour un agent AA peu de valeur ajoutée et partant de de ce constat là et aussi de la tendance du marché qui va vers l'automatisation, vers l'intelligence artificielle ? Il y a effectivement l'offre pour automated, alors qui existait déjà, mais plutôt sur des processus d'automatisation très simple, automatique, automatisation de de workflow par exemple. Et l'idée était d'aller un cran plus loin avec de la robotisation et donc d'apporter le RPA, à pour encore une fois permettre à nos clients et les collaborateurs de se focaliser sur les tâches qui ont de la valeur ajoutée et pas sur des.

J : D'accord et est-ce qu'on peut dire que, juste cet engagement des collectivités territoriales là-dedans, à vouloir des outils plus d'autorisation, il s'est accéléré ces dernières années, notamment avec la crise, ou c'est dans le continu de processus de digitalisation ?

C : De ce que je constate, on peut pas vraiment dire qu'il s'est accéléré la dernière ces dernières années, il s'accélère. Je dirais plutôt ces derniers mois en tout cas moi de ce que je vois. C'est plutôt oui une accélération sur les derniers mois ou les directions métiers c'est ce qui est intéressant et pas les directions informatiques. Les directions métiers s'intéressent de plus en plus à. Ce type de solution ?

Qu'on ça reste encore. Nouveau pour certaines collectivités qui sont plutôt dans la première phase. Déjà, je vais automatiser des workflow avant même de parler de RPA

J : Elles communiquent très peu tout de même là dessus

C : Ouais non, mais je te je te confirme hein, c'est comme je le disais c'est Un sujet qui reste encore nouveau sur lequel elles vont. Les collectivités vont de de plus en plus en tout cas commence à y aller. Certaines commencent un peu de loin et encore une fois, sont encore plutôt dans des processus assez simple. Dans une métropole, c'est la direction des finances qui lance, Ça vient pas de l'informatique. Donc on débuter avec un POC.

J : Est il facile de trouver des clients ? Notamment car Microsoft est déjà implanté dans le secteur.

C : Oui et non. Alors oui, ça facilité parce que effectivement tu vas avoir je sais pas le pourcentage, mais je veux dire les 90% des collectivités qui vont utiliser office teams et cetera donc donc effectivement on a déjà un pied dans la maison. L'autre facilité, c'est qu Avec Office tu hérités de ? De droit ou faire du point automate qui ont de la limitation, mais gratuitement, tu as quelques droits pour automate qui te permettent de faire des choses. Assez simples ? Donc les clients, ça permet de leur mettre le pied à l'étrier sans utiliser déjà à acheter des licences, foulent pour automate. Donc ça ça, ça

facilité. Après Microsoft, beaucoup de choses. Très souvent, les clients ne savent pas qu'on fait du RPA.

J : D'accord et pour parler un peu plus de l'impact justement de ces projets. Quelle amélioration peut s'attendre une administration en utilisant votre système sur la qualité de service ou la réduction des charges ?

C : Le bénéfice principal d'utilisation du RPA, en tout cas dans les collectivités, ça va être l'efficacité opérationnelle des agents Ils peuvent faire des tâches autrefois qui ont peu de valeur ajoutée, donc on va aller recentrer sur des choses qui ont plus de valeur. Ca va motiver les agents, en Tout cas l'implication dans son travail. Je pense que ça a un impact. Et après, effectivement, on va gagner en efficacité. Et puis ça aussi un bénéfice pour la collectivité qui dit robot n'est pas humain, tu diminues voir, tu élimines les erreurs humaines si tu prends des tâches de ressaisie. Bah tu peux avoir alors c'est peut-être un pourcentage minime hein ? Peut être un 2% d'erreur humaine que tu effaces avec un robot ?

J : Est-ce que cela rend l'administration plus flexible ?

C :, les changements peuvent être adaptés sur les solutions de RPA. Mais Tu lui dis ce qu'il doit faire et il le fait alors qu'un agent peut être, ça va être plus de temps. Peut-être qu'il va réfléchir de manière plus plus prononcée sur pourquoi je dois faire ça.

J : Avez-vous eu des freins vis-à-vis des agents ?

C : Nous, comment tu vas présenter ça ? Un agent peut voir ça comme une menace. Lyon, il va me prendre mon boulot. Et c'est pour ça que quand les collectivités présentent ça à des agents, il faut vraiment qu'ils le un les rassure sur le fait non c'est pas là pour prendre votre boulot, c'est là pour. Vous permet de travailler sur des choses qui sont. Plus intéressantes pour. Après, c'est sûr, il y a des personnes, leur petit boulot leur va très bien. Si elles font de la saisie toute la journée limite elles en sont contentes mais mais l'idée c'est ça aussi, c'est de focaliser les gens sur des choses qui sont, qui ont plus de valeur ajoutée pour eux et pour la collectivité.

J : Et est-ce que dans la solution que vous proposez, vous rajouter un volet justement d'aide au management et des justement les employés à s'adapter à ça ?

C : Alors ça, c'est un bon point alors nous Microsoft on est. On est principalement éditeur donc on fournit les solutions après tout ce qui est mis en place, accompagnement dans 98% des cas on Passe par un réseau de partenaire. Le partenaire va Faire qu'il va faire 2 choses, il va faire la partie technique, donc aider le client à Mettre en place le quai d'usage en question, l'accompagner, le former si le client souhaite être indépendant sur l'utilisation de de la solution, mais aussi faire tout ce qui Est conduite du changement. Et donc à aller former aussi les utilisateurs et leur représenter les bénefices.

Alors ouais y a 2 typologie alors, il y a les cabinets de conseils dont tu parles comme Deloitte, comme Eurogroupe, comme. Elle s'est mis en fait y en a plein et Eux, ils sont vraiment sur la partie Conseil, donc ils sont plutôt en amont des projets, ils sont plutôt là à pour aider les collectivités à réfléchir sur leur transformation numérique.

Partenaires intégrateurs ? Tu vas retrouver Accenture alors t'en as sûrement qui font les 2 hein, mais t'as des actes pour style, les plus gros. J'installe la solution, je forme et je la conduite du changement, donc pour un moins distinguer le cabinet de Conseil et très en amont, et les interrupteurs qui sont plutôt en aval.

J : Comment Microsoft aide ses clients à gérer la complexité administrative ?

C : Il y a beaucoup de crain à ce sujet

Ça fait partie d'une offre qu'on appelle Power plate forme chez Microsoft, dans laquelle tu retrouves plusieurs modules de, le code donc t'as pour automate ? Pour tout ce qui est automatisation et t'as par exemple aussi pour apps ? Qui est un module qui permet de de créer des applications en local de nos codes. Et des applications l'objectif, c'est pas de recréer des applications ultra complexes, mais plutôt de créer ce qu'on va appeler des micro applications pour aller digitaliser, par exemple, des formulaires papiers pour aller digitaliser, des processus qui sont gérés par des échanges d'emails dans les collectivités. D'ailleurs que souvent pour apps fonctionne avec pour mettre pour APP va être le front. Pour le dans lequel l'usager va faire des demandes sur les données et derrière mon back end tu vas avoir un cours automate qui va déclencher un certain nombre d'automatisations.

Et. Et voilà ce que je voulais dire, c'est que c'est plus par manque de connaissance quand tu présentes ces outils là tu présentes le bénéfice que ça peut leur apporter. Ils comprennent après, entre le moment où ils comprennent et ils vont vraiment. Il peut se passer un peu de temps et il y a beaucoup de travail de de présentation à faire, mais ils sont assez rapidement convaincus et comprennent assez vite le bénéfice que ça peut leur apporter parce qu'effectivement, dans les collectivités, c'est la bureaucratie. Y a encore énormément de de papiers.

Et corps et encore énormément de processus. Manuel mais les collectivités ont conscience qu'elles doivent se transformer. C'est le sens de l'histoire, un pour améliorer leur efficacité de manière globale, mais aussi pour améliorer l'expérience qu'a le proposer à leurs usagers. Aujourd'hui tu vas voir ta mairie de référence pour déposer un dossier. Je sais pas, j'ai une bêtise pour la cantine des enfants. Ça prend 2 semaines à traiter toi en tant que citoyen, ton clavier, tu vas pas ? Être content. Et c'est là où il est efficacité opérationnelle de la collectivité est importante et ou des outils de RPA peuvent aider à améliorer l'efficacité. Là et donc à améliorer l'expérience usagée que là collectivité propose à ses citoyens.

J : Il y a-t-il des prérogatives plus difficiles dans le secteur public ?

C : Par rapport à qui est Microsoft ? Va savoir un acteur américain. Donc toutes nos solutions sont proposées en mode sans donc là. Et même si on a un hébergement à France, on a des data. Center en France, ce qui ? Veut dire que les données des. Clients français sont hébergées en France. On a, on a très souvent le un argument qui, nous, qui nous, qui nous est opposé, qui est de dire Vous êtes américain et vous êtes soumis au Patriot Act Ça, c'est un bien. Même très souvent, donc c'est une difficulté. J'ai encore le cas il y a pas plus tard que la semaine dernière ou une région lance un appel d'offres pour solutions de GRU et sur une relation usagers, donc on est capable de fournir. Mais dans son appel d'offres, elle dit, je veux une solution cloud, héberger en Europe donc

parfait on répond mais non soumis au pas. Faire acte. Donc quand tu mets ça, ça veut dire que 2 facto tu éliminés tous. Les acteurs America.

Ils sont les leaders sur le marché et tu pourras regarder si tu cherches. Il y a un article là qui est, qui fait un peu lâche pas le le Buzz, mais en ce moment c'est le ministre de l'éducation. Qui a dit Je ne veux plus que les écoles françaises, donc il sait. Collège primaire utilisé. Microsoft et Google. Okay, parfait Monsieur Miss, mais qu'est-ce qu'ils vont utiliser ? Y A quoi comme alternative ? Sur la bureautique. Juliette, que t'utilises tu dis non ? Je te dis, je peux ? Battre les Microsoft tu me mets Google t'utilises quoi ?

Donc on fait encore face à ce type de de de pragmatique hein, et tu regarderas c'est ça date de la semaine dernière. Y a quelqu'un qui s'insurge en disant Mais arrêtez, c'est n'importe quoi. On ne peut pas. Alors oui, il y a un monopole américain sur ces sujets là. Okay, passons parce que oui, un Monopole mais les meilleures solutions. Des alternatives Franco françaises où réelles ? Pourquoi ? Pas, mais y en a pas. Puis effectivement, c'est un point, le le fait qu'on soit américain, qu'on soit soumis au Patriot Act, même si c'est pour moi souvent ce sujet qui est plus émotionnel, que rationnel. Parce que partir. De taxes, c'est quand même hyper encadré. C'est en cas de suspicion de de terrorisme ? Et une demande auprès d'un Juge qui doit te faire c'est pas l'État américain qui lève le doigt. Qui dit Microsoft ? Je voir les données des citoyens de de je sais pas quelle ville ça fonctionne pas comme ça mais parfois l'impression que les. Clients pensent que ça fonctionne.

J : Avez-vous des problèmes de responsabilité face à ça ?

C : Alors forcément, nous. On fournit ce système. Et donc François, on doit s'assurer un. De la sécurité du système ? Et de fait qu'il ne soit pas énormément cyberattaque. En ce moment. Elle a pas plus tard qu'une fois qu'il y a 2 semaines, vient de mes clients le Conseil Départemental des Alpes-Maritimes, c'est fait un paquet. C'est pas toujours la solution Microsoft. La porte d'entrée. Ça peut-être ça peut-être, d'autres d'autres systèmes, mais les clients n'ont pas aussi toujours toutes les solutions de sécurité. Microsoft donc après la, la responsabilité est tombé de leur côté après notre responsabilité aussi au curite, c'est la disponibilité du service. On est en mode cloud. Ça veut dire que les serveurs sont. Chez à nous et c'est.À nous assurer que le service soit toujours disponible

J : est-ce qu'on peut penser justement que cette diminution de charge peut amener une réduction des employés au sein de la collectivité et donc du corps administratif ?

C : Donc j'ai envie de te dire que. Oui, mais après ? Dans une collectivité aujourd'hui, en tout cas, c'est ces notions d'automatisation. Des tâches qui restent réduites, c'est des tâches très précises. Tu vas pas remplacer l'instruction d'un dossier, par exemple de dépôt de permis, construire par un robot, ça c'est pas possible. Ça va vraiment contribuer à les aider à être plus efficaces, à répondre plus rapidement aux besoins des usagers parce que y a des instructions en fait de de dossiers à faire, des choses qui peuvent être. Automatisée peut être un des avantages très simples, mais on est quand même dans une relation entre un usager et sa collectivité, il y a forcément de l'humain.

J : Donc tu ne parles jamais de diminution des coûts avec le RPA ?

C : Non non c'est pas, c'est pas non, c'est pas. Dans les collectivités déjà tu parles pas de ROI, on parle d' Améliorer l'efficacité opérationnelle. Déjà, là, tu commences un peu à aller à les taquiner parce que dans une collectivité, tu parles pas de performance de l'employé, donc déjà là t'es t'es un petit peu la limite de ce que tu peux dire. Donc parler de de réduction, de du nombre d'employés principaux, non ? On parle vraiment de les aider à mieux faire leur travail au. Quotidien, OK ?

J : Quelle est la réaction de l'usager sur le RPA ?

C : Pour un usager, c'est c'est transparents. Il est pas du tout impliqué. Les collectivités constatent une satisfaction plus des citoyens. Alors ça faudra qu'elle qu'elle mette une valeur de ce truc. Aujourd'hui très peu de collectivités mesure l'association d'usagers un peu.
Après là où l'usager peut constater. C'est plutôt par les services que va proposer la collectivité pour rencontrer un contact avec elle. C'est sûr qu'il y a y a 15 ans pour parler à ta mairie, il fallait te déplacer aujourd'hui ce que veulent faire les collectivités, c'est de proposer des points de contact digitaux. Donc ça va être peut-être être un portail usager qui va te permettre toi depuis chez toi sur ton portail, ton espace, bah d'essayer ta demande de déposer tes pièces, pièces, entité et cetera. Ça va être la capacité, pourquoi pas, d'aller contacter ta collectivité, ta mairie ? Sur les réseaux sociaux, ça peut être de leur renvoyer un email, ça peut être le téléphone, ça peut être un argent virtuel, donc aujourd'hui c'est ça l'enjeu des collectivités, c'est aussi de proposer des points de contact autres que juste. Il faut absolument venir. En Amérique pour faire une demande ?

J : Comment le RPA peut-il préparer au futur des admnistrations ?

C : Oui, alors ça permet de les préparer au futur. Alors je sais pas si c'est au futur, mais ça leur permet de se préparer au changements Qui s'opèrent dans la société et en fait, ce qu'on constate dans le dans le privé, notamment un besoin d'expérience personnalisée

Et en fait. Tout ce qu'on voit, qui est déjà ancré sur le B to c qu'on voit en tant que consommateur individuel. Et bien forcément ça, ça déteint sur notre expérience envisagé. Des outils, des interfaces qui sont simples, qui soient fluides que quand on s'adresse à notre collectivité et bien qu'on soit reconnu comme demande pas 10 fois qui je suis, mon état civil m'en a donné. Naissance et cetera. Comment attendre des réponses rapidement qu'on m'apporter des réponses personnalisées et que je puisse entrer en contact ? Avec ma collectivité sur une canal et que j'ai plus besoin de me déplacer. C'est ça, entre guillemets, le futur pour les collectivités, c'est de rattraper les tendances qui viennent du tweet qui arrivent sur la relation qu'on peut avoir avec lui. On a parlé très longtemps d'amélioration de l'expérience client. Eh bien, aujourd'hui, on parle d'amélioration de l'expérience usagée, parce que l'usager est aussi un client, donc ce qui je vois dans son quotidien en tant que consommateur, Eh bien, il peut aussi le retrouver dans son quotidien.

J : ? Est ce que y a y a une entente entre les collectivités sur les systèmes que j'utilise ? Je pense aux régions, départements et municipalités.

C : Alors effectivement tu vois, t'as la région où la métropole dans certaines qui va être un peu au-dessus et qui va fournir des solutions que vont utiliser les collectivités après

c'est quand même assez rare d'une collectivité à une autre, même dans une même. Tu vas trouver des solutions, des solutions différentes.

J : Où est-ce que c'est l'État ?

Non, l'état, non, l'État n'impose rien. Après t'as des solutions que tu retrouves partout parce qu'elles sont spécialisées sur un domaine très particulier. Les collectivités, les. Mets les l'état de mémoire comme ça n'impose pas de de solution précise.

J : Une dernière remarques ?

C : Et ce que je dis souvent à mes collectivités, c'est, les citoyens se transforment, changent des nouvelles attentes et donc les collectivités doivent.

D Transcription Interview 4 –Microsoft – Charles Caletroupat (C), Thomas DeLacoste (T), Marc Phimis (M) & Juliette Dumas (J) – (French)

C : En 2020 donc, relativement tôt par rapport aux autres. Et a vraiment eu une logique assez rapidement de de déploiement large échelle. Là, on a d'autres clients qui qui cherchent un peu des occasions, qui tâtonnent et et en fait ce tâtonnement les empêche d'avancer parce que en fait, faut pas tâtonner, faut changer de façon de réfléchir, déployer à large échelle.

J : Qu'est-ce qui a poussé Microsoft à s'intéresser au RPA, à la base, parce que c'était pas le son de ses activités.

T : Power plateforme en fait on a on a je dirais aujourd'hui on va dire qu'on a 33 grandes catégories d'outils chez Microsoft t'as tous les outils autour du poste de travail donc office ou Windows la sécurité donc ça effectivement c'est un premier pas. C'est un grand 2e pan qui est autour de azur donc tout le cloud il y a un 3e pan qui est ce qu'on va appeler les business applications donc c'est le RPCRM mais aussi tous les outils au code no code et en fait cette partie là elle vise justement à donner des Petit à nos clients et aux collaborateurs de nos clients pour qu'ils puissent en fait simplifier l'accès à des solutions IT qui peuvent être complexes quand tu n'as pas ce type de solution, loco code et donc c'est vraiment en fait nous dans une approche de d'aller toucher, de d'accélérer la digitalisation en fait de de nos clients en donnant non pas qu aux développeurs mais en donnant à tous les collaborateurs de nos clients des outils pour les aider à moderniser leur tu vois leurs solutions, leurs applications. Elle s'inscrit vraiment dans cette optique là et donc le RPA en particulier dedans de dire ça pouvait être des outils et des processus qui sont compliqués à mettre en place. Et Ben notre objectif c'est De les rendre simples. Et et embarquer dans ton outil du quotidien. Donc il y en a, on va, on va retrouver nous une partie de nos solutions RPA à dans Windows 11. On a pour automate, on a embarqué en fait un nativement dans le cadre de ta licence Windows, des accès à Power Automate qui est notre logiciel de RPA. Pour pouvoir justement créer tes propres flots sur ton poste. Là on a la possibilité de créer des processus et là tout à chacun peut le faire, donc par exemple à la SNCF, tout le monde aujourd'hui peut créer son petit processus de RPA pour automatiser des tâches et donc ce qui est super intéressant, c'est qu'en termes. Qui va je sais pas si pendant qu'elle va saisir des données, par exemple de mesures terrain et derrière ils vont-ils vont utiliser du RPA pour automatiser le transfert de ces données, soit dans d'autres applications où déclencher des processus pour dire Bah tiens j'ai fait une visite, voilà les données que j'ai récoltées dans ces données là il se trouve qu'il y en a peut-être qui sont au-dessus ou en dessous de certains seuils d'alerte qui nous semblent importants et donc du coup déclencher des actions. Donc tu vois par exemple les cas d'usage, c'est

sur le terrain où on relève des températures, des niveaux, des choses comme ça. Et si y a une valeur ? Qui est anormale. Et Ben ça, ça va déclencher par exemple, des travaux, des travaux de correction sur le rail ou sur l'infrastructure, donc pour envoyer des équipes qui vont permettre ensuite de corriger ça. C'est pour ça qu'on s'y intéressé, c'est de se dire, c'est démocratiser des outils pour faciliter et accélérer encore, je dirais tu vois là la transition vers des outils Numérique de nos clients. C'est quelque chose qui est parti du terrain, qui a été remonté au niveau un peu du de la DSI et après redéployer largement dans l'entreprise.

J : Avez-vous du former les employés ?

T : C'est un point super important pour nous, c'est que on, on part du principe qu'en fait il suffit pas juste de mettre une solution dans les mains de nos clients pour que ça marche bien et donc en fait on a, on les accompagne donc on les accompagne, il irait de de 3 façons. La première c'est qu'on les aide à mettre en place qu'on va appeler la gouvernance, c'est comment vous devez vous organiser à la SNCF pour que le déploiement et la prise en main de cet outil ça se passe bien. La 2e, C'est que, en fait, on on leur donne accès à tout un catalogue de formation, donc là qui sont gratuites et qui sont accessibles via notre programme de formation en Microsoft qui s'appelle l'entreprise Killing Initiative. Ça leur donne accès donc à tout un catalogue pour se former et se certifier et donc la certification c'est intéressant c'est que à l'issue de ta formation, tu réponds enfin, tu passes à un examen avec un examinateur. Voilà qui est indépendant. Tu réponds tout un ensemble de questions et qui te permet de dire Bah Voilà, tu tu on considère que du coup tu as un niveau techno. Voilà qui qui est Ben général et ensuite doit avancer en fonction des certifications, qui te permet de maîtriser et de comprendre les enjeux, l'usage et comment fonctionne une plateforme. Et après le le dernier accompagnement, je vois qu'on a pu mettre en place avec SNCF, c'est aussi financer des partenaires, donc là on va financer donc on a un écosystème en France de 10000 partenaires donc on va financer des partenaires pour accompagner la montée en compétence des équipes à la fois au niveau des équipes du central qui gère la plateforme et dans des dans des dans des départements métiers pour les aider à déployer, à développer des applications et à former leurs équipes à utiliser. Tu vois ces solutions là ? Et c'est quelque chose qu'on continue à faire. Il y a toujours des projets d'envergure en fait, qu'on continue de de, de de de, de de financer pour partie pour. Voilà, parce qu'on pense que c'est des projets qui à qui on doit donner la visibilité, qui vont contribuer justement à transformer. Tu vois durablement SNCF.

J : Quels sont les principaux avantages d'une solution RPA ?

T : Bah le, le je pense qu'effectivement que l'intérêt au global, ça va être une, ça va être l'amélioration de l'efficacité opérationnelle parce que finalement quand tu vas automatiser

des processus comme ça, qui aujourd'hui bah nécessité par exemple, de la transmission orale, ou alors d'appuyer sur des boutons. Enfin des actions manuelles, ça va, ça va effectivement améliorer l'efficacité opérationnelle.

C : On peut raconter Thomas, peut-être le fait que nos équipes sont sur un centre de maintenance ? De nos client ont vu à quel point il y avait encore beaucoup de de papiers pour noter sur des opérations de de maintenance, les éléments à remplacer sur un train, et cetera. Puis après ce papier, il est tombé dans un bureau puis dans un bureau, y a quelqu'un qui saisissait dans un tableau Excel, les tableaux Excel était envoyé par mail à quelqu'un d'autre, enfin donc c'est c'est ce qu'on vient de dire, c'est beaucoup d'intervenants. Du temps. Des erreurs ? Et donc ça, ça coûte à la fois par le temps que les gens passent par les par, les par, les erreurs et le temps que ça prend, alors qu'effectivement on peut relativement facilement développer une petite application qui permet à un technicien sur site quand il repère une pièce à. Changer de déclarer que et on va avoir besoin de telle pièce tel jour, à telle heure pour telle opération et ça va envoyer l'information au service qui va passer les commandes et qui ? Va organiser l'intervention. Donc c'est effectivement ça quand on dit automatisation de processus et les gains que ça va générer, c'est vraiment des gains sur des erreurs. Les dégâts sur le coût de traitement par les équipes

J : Avez-vous du faire face à des problèmes de complexité administrative ?

T : c'est plutôt le client qui a cette connaissance. Là, nous on. Va plutôt l'aider sur comment utiliser au mieux l'outil et peut-être essayer de l'aider à comprendre le processus qu'il a pour comment il doit utiliser l'outil. Le vraiment après le, le processus que tu décris et qui intervient quand C'est plutôt effectivement le client qui a cette maîtrise là et nous on va l'aider, on va l'aider à peut être tu vois formaliser et à comprendre ce processus là pour se dire Bah est-ce que déjà ce processus il ne faut pas le questionner et si Ben on considère qu'il est bon comment tu le après, comment tu le matérialisés ? Dans le les outils qu'on peut avoir ? Voilà donc nous on va dire qu'on va et on en fait on. On essaye de en fait d'aider le client à à exprimer le le processus métier et et voilà et éventuellement le challenger. Mais c'est ça, ce n'est pas forcément nous qui venons avec l'aider. Une connaissance métier fine, mais on essaie de faire le lien entre la compréhension qui nous apporte et le et la connaissance. Nous, qu'on a, qu'on peut avoir de. Notre de notre solution, ça, c'est le premier point et peut-être le 2e point là-dessus, c'est que si on utilise beaucoup, on a de plus en plus de personnes aussi qui travaillent sur L'adoption. Nos solutions prennent nos clients, donc c'est ce qu'on appelle des customer success manager. Ce qui est intéressant, c'est que ils voient plein de cas d'usage, plein de mises en œuvre chez les clients et du coup ils vont partager de l'un à l'autre. Voilà donc on essaie en fait de capitaliser sur tout ce qui peut être fait dans l'équipe pour aussi donner aux aux clients.

Des références de ce que peuvent faire soit des concurrents, soit d'autres acteurs dans tu vois dans ces domaines là.

J : Avez-vous observés une résistance du personnel ?

Bah y a toujours enfin en fait, comme dans toute adoption de solution, tu vois numérique et dans tout changement il y a il y a forcément des freins. Il y a 2 types de freins, t'as des freins psychologiques en disant Bah tiens je je veux pas changer, je veux pas changer parce que mon moi j'ai toujours procédé comme ça. Le processus était ainsi et je veux pas le remettre en cause, donc là c'est expliqué effectivement c'est accompagner le le changement la plus sur l'aspect fonctionnel. Comment Voilà pourquoi ça va t'aider et simplifier ton. Travail. Et donc ça on comme j'étais l'heure. On peut notamment le faire aussi avec des partenaires et puis après le 2e frein, il était aussi technique, c'est à dire que Ben en face de nous, on a des on a type tout type de population et tout type, notamment de personnes d'âge différent. Tu vois et donc du coup avec des maîtrises parfois différentes de l'outil informatique donc c'est là où ça rejoint le point de la formation que j'évoquais tout à l'heure. Tu vois le l'accompagnement, la formation via nos nos outils ? Enfin, nos formations à nous via l'accompagnement aussi des partenaires, ça a permis d'accompagner sur le terrain. Les personnes qui étaient plus réfractaires parce que toi peut-être un peu moins à l'aise sur les outils. Une partie de la population qui utilise du PC comme nous dans les bureaux et qui est très à l'aise sur nos outils. Et eux y a pas de problème. Par contre, t'as tout un autre parti qui est sur le terrain, qui historiquement n'a jamais trop utilisé l'outil informatique et très peu même dans leur vie personnelle, et y en a. Ils savent à peine. Enfin y en a qui savent à peine allumer un ordinateur. Tu vois ça, c'est une réalité quand on discute avec SNCF réseau qui gère tout le le réseau, l'infrastructure. On a des gens, ils savent à peine ouvrir enfin Word et taper un document dessus. Tu vois donc quand demain on leur dit Bah tiens en fait au lieu de saisir sur au lieu d'écrire sur une feuille avec ton crayon ce que tu as relevé et de de donner ces valeurs là par exemple quand tu rentres au travail à ton manager ton responsable et on leur dit tu utilises une application pour eux on leur demande un changement énorme en fait. Il faut aider toutes ces personnes là à monter en compétence. Tu vois sur l'outil informatique comme avec Simplon

Tu vois à réduire la fracture numérique auprès de ces populations là voilà, donc c'est donc on essaie de les accompagner. Voilà sur ces sujets là, donc ils il faut qu'on tu vois qu'on qu'on jongle entre des profils très aguerris et peut-être des profils jeunes pour certains et des profils un peu plus anciens pour certaines personnes et qui ont. Voilà qui ont jamais vraiment utilisé tous ces solutions.

J : Peut on parler de réduction des couts administratifs ?

Oh alors effectivement bah quand on parle de digitalisation d'une manière générale et donc après l'automatisation la via le RPA effectivement un des gains comme disait tout à l'heure, c'est un peu tout ce qui est efficacité opérationnelle et donc là diminution des coûts et donc potentiellement je dirais une réduction du Personnel ? Euh, nous, on préfère le présenter en fait sous un angle différent en disant, on va retirer dans le temps de travail les tâches qui n'ont pas de valeur et du coup tu vas ça va laisser plus de temps pour faire des tâches qui ont de la valeur pour ton entreprise ou pour ton client final. Donc par exemple tu vois ce que ça veut dire pour un mainteneur qu'on évoquait tout à l'heure ou une tâche de par exemple, de relevé de mesure va être automatisée et envoyer direct. Vraiment ? Dans les bases de données de l'entreprise ou aux bonnes personnes ? Ben c'est qu'en fait, au lieu de faire une tournée je ne sais pas où il va contrôler, peut-être 20 ou 30 points sur une ligne, il pourra peut-être en faire 40 ou 50 donc au final et SNCF ils vont pas juste réduire leur personnel, ils vont pouvoir enfin surveiller plus d'éléments de leur réseau.

J : Il y a-t-il une différence entre vos clients du secteur privé et clients du secteur public ?

T : Oui, et bah enfin effectivement. Dans le secteur public, il y a peut-être une attention différente qui effectivement qui est portée au collaborateur ou ou là y a je pense qu'il y a notamment un un peut être un poids du passé et un poids peut-être aussi tu vois des organisations syndicales qui peut être un peu plus importants et donc il y a du coup effectivement un un, une, un accompagnement au changement qui peut être un peu plus important que dans des entreprises privées.

C : Ouais, mais moi je dirais 2 choses, c'est une question, moi je dirais 2 choses. La première, c'est que. Donc les 2 choses se neutralisent en fait, dans le public, on n'accepte pas forcément de faire des calculs de productivité et de gains ci c'est une tâche prenez 5h et qu'on arrive à la réduire à 2h30 on va pas supprimer les emplois qui vont en face par rapport au volume d'heure que ça dégage dans le secteur public donc les les calculs de de de gain de de, de rentabilité, de productivité de tout ça c'est des mots qui sont un peu un peu interdits dans Le secteur Public. Ils vont pas diminuer leurs effectifs pour pour autant et ça c'est un grand classique qui empêche les grandes organisations du secteur public de se moderniser parce que de toute façon leur raisonnement c'est de toute façon on a les gens sur les bras, donc même si on est beaucoup plus efficace avec nos outils, les gens ont on les aura toujours. Sur les bras qu'on n'aura pas le ROI. Ce qui est une bêtise parce qu'on pourrait faire.

Le secteur privé est plus davantage capable de de prendre en compte de la productivité, une amélioration de la productivité et donc de dire je l'ai gagné. X équivalent temps plein,

donc x l'équivalent de X personnes le TP c'est équivalent temps plein, ça veut dire. Sans le TP, ça veut dire en gros, je peux faire la même chose avec 100 personnes de moins. Et donc ça, les entreprises privées, elles font des calculs comme ça quand elles déploient un outil, si elles savent que cet outil leur permet de d'avoir 100 personnes de moins, elles vont vraiment mettre 100 personnes de moins pour faire ça. Et elles vont mettre 100 personnes de plus ailleurs, mais elles vont vraiment calculer une économie liée à la baisse de personnel pour accomplir une tâche. Donc ça va les inciter à prendre des décisions, de se moderniser et de mettre en place des outils parce qu'elles vont en tirer les gens-là ou le secteur privé se. Par contre t'es moins, c'est tout ça, pour moi c'est aucune surprise et c'était parfaitement prévisible.

Tous les clients du privé Veulent qu'ils appellent des cases et calculer des retours sur investissement, mais ils vont faire avec 3 applications, ils vont se dire Tiens Ben voilà le j'en sais rien. L'application pour que les gens demandent leur congé, on va leur développer un petit module sur leur téléphone portable, on va économiser 10000€, bah ça justifie ça justifie pas d'investir plusieurs 1000000 dans un dans un outil. Et puis après on a une autre idée, alors on dit OK. Tel processus, justement, je reprends les sur le centre de maintenance, la commande des pièces de rechange, on va l'automatiser, ça va nous faire économiser 200000€.

Là où moi je vois, je peux citer les noms mais je vois un paquet d'acteurs privés qui sont en train de faire tourner des tableaux Excel dans Tous les sens. De faire des calculs pour savoir sur quelles applications ils vont amortir au plan financier leur investissement et en fait ils n'arrivent pas, Et évidemment puisqu'encore une fois c'est pas avec cette application, c'est avec des centaines ou voire des milliers d'applications que le projet va être rentable. Et donc le fait de vouloir trop rationaliser, c'est un vrai frein à l'investissement pour le privé.

J : Voyez-vous le RPA comme le premier pas vers une plus grande digitalisation ?

T : Je pense qu'on peut aller encore beaucoup plus loin dans l'usage de ces solutions là et notamment on en ouvrant des solutions vers le client final, c'est-à-dire toi aujourd'hui y a des applications qui sont faites que d'usage interne. Demain y a des usages où on va avoir des applications avec des solutions locales, nos codes, et du RP à derrière qui seront ouvertes avec de l'information qui sera donnée aux clients par exemple. Voilà donc je pense que ça c'est c'est. C'est quelque chose qui va arriver et puis, et puis de de de l'utiliser plus largement comme un outil quasiment du quotidien par voilà quasiment tous les collaborateurs quand ils en auront besoin.

J : Est-ce que ça veut dire aussi prendre des décisions automatiquement ?

T : Alors ça dépend quel type de décision je dirais. Ça pourrait en fait, c'est pour apporter probablement, je le dirai plutôt pour apporter de l'aide à la décision.

Le personnel, tu vois de terrain à prendre la bonne décision, ça peut être un effectivement un point intéressant parce que du coup on va automatiser tout un ensemble de remontées d'informations et apporter des éléments à la prise de.

Je pense que vraiment enfin en tout cas ce qu'on voit, et c'est aussi comme ça que parce que derrière quand on parle de robotisation anticipé RPA y a très vite on va, on va évoquer les sujets d'intelligence artificielle, ça va être non pas pour remplacer l'action humaine, Mais pour lui apporter de la certitude du choix qui peut être pris.

J : Une dernière remarque ?

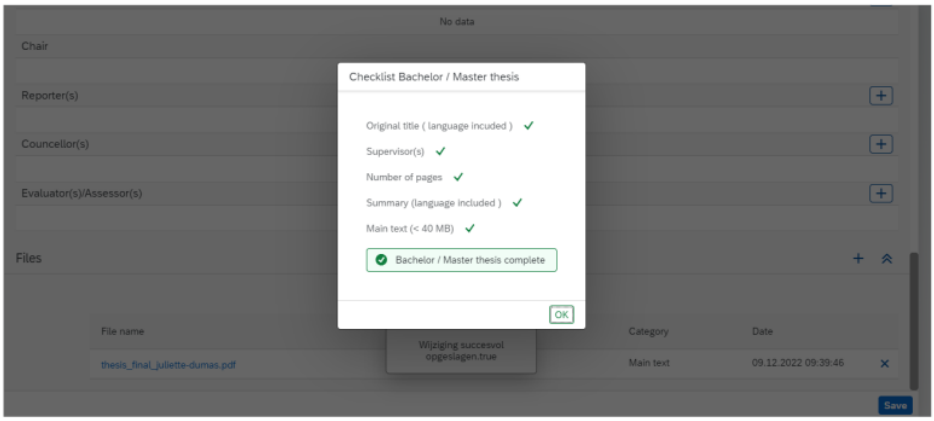
T : Bah je pense que enfin moi l'enjeu global, je dirais pour conclure, c'est que on sent que tous ces outils là, de loko code et de RPA en particulier, c'est très adopté par les Popu. Plutôt collaborateur de de bureau, tu vois parce que c'est utilisé dans des processus du quotidien. Pour moi, l'enjeu sur des acteurs industriels, c'est de faire en sorte que si ça devienne l'outil du quotidien des opérateurs de terrain, voilà. Tu vois donc ça commence un petit peu à être le cas, mais je pense qu'on voilà y a un mouvement de fond encore. On peut aller encore beaucoup plus loin et et traiter des cas d'usage industriels très importants avec des vrais gains pour ces populations là pour leur simplifier et leur apporter. Tu vois de de. De l'aide dans leur met ? Et non pas pour les remplacer, c'est vraiment de l'aide dans leur métier.

C : Que moi je l'ai Rome pour, euh, peut-être les choses qu'on a pas aborder qui me paraît intéressante, c'est les les communautés d'utilisateurs. Je l'ai vu dans le. Le secteur de la construction la semaine dernière, on a fait venir chez Microsoft les les Colas, les Bouygues, les. Les Vinci, enfin, le plus grand ? Les concepteurs de la construction. Euh, et ils ont échangé entre eux ? En fait Microsoft on a fait un peu le les présentations, on a lancé un peu les débats puis après on s'est mis en groupe. Ouais, et ils ont partagé entre eux justement leur cas d'usage, les difficultés, comment gérer les problématiques de gouvernance de la donnée, de sécurité de la donnée, comment maîtrisait le le patrimoine applicatif parce que les milliers d'applications qui sont créés dans une entreprise, ça demande à être un tout petit peu contrôlé comme mon père. Le support pour ces applications fonctionne pas. Bah qui est ce qu'on appelle au sein de l'organisation. Donc il y a des questions très pratiques qui se posent et c'est communautés d'utilisateurs je trouve sont très puissantes parce que ça ça leur permet entre professionnels. C'est un secteur d'activité donnée. De se partager des bonnes pratiques et des des solutions à des

problèmes concrets, donc en termes d'adoption, je pense que c'est quelque chose qu'on va essayer de de créer. Ça, c'est quelque chose de très important.

J : Pourtant très peu d'acteurs publiques communiques sur leur initiative de RPA ?

C : En fait, la réponse est qu'il n'y a pas de y a pas de communauté aujourd'hui, il y a des acteurs qui sont un petit peu emblématique et qui aiment bien communiquer mais y a pas encore de communauté.



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