

Tackling the evolution of professions and job profiles within French and Belgian public administrations in the context of digital transformation

FORWARD-LOOKING REPORT

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The project is funded by the European Union via the Technical Support Instrument, managed by the European Commission Reform and Investment Task Force (SG REFORM).

This report has been delivered in April 2025, under the EC Contract No. REFORM/2021/OP/0006-03. It has been delivered as part of the project Map & Match: Support to the development of digital skills of public employees ".

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Introduction

I. Overview of the Ministry of the Economy, Finance, Digital Affairs, and Industrial Sovereignty (the French Ministry)

The Ministry of the Economy, Finance, Digital Affairs, and Industrial Sovereignty of France is a key governmental body responsible for defining and conducting France's economic strategy, preparing, and executing the national budget, protecting consumers tackling fraud, and promoting business development. Its broad range of responsibilities makes it essential to the functioning of the State and the country's economic life. The ministry is headquartered in Paris and employs approximately 126,000 public employees. It encompasses several services and directorates, each responsible for specific functions among the 160 roles existing within the ministry.

In recent years, the Ministry has launched several initiatives to support digital transformation, including developing digital public services, promoting e-governance, and implementing cybersecurity measures. These efforts are part of a broader strategy to position France as a leading digital economy in Europe and globally.

In this European landscape of digital transformation, France ranks lower than other countries in terms of digital maturity. Indeed, following the four criteria (digital competitiveness, infrastructure, and connectivity, integration of digital technologies by companies, and digitisation of public services) of the latest DESI ranking¹, France is twelfth out of the twenty-seven countries of the European Union. Comparison can also be done specifically on the level of digital transformation of the governments through the eGovernment Benchmark² which monitors the digitalisation of public services in Europe across four dimensions (User centricity, transparency, key enablers, and cross-border services). According to that metric, France is ranked sixteenth still above the EU average. Deep diving on France's performance towards the digital decade targets and objectives.³ The strengths of France rely on the connectivity of its infrastructure as 81.4% of the households are covered by fiber to the premises as well as 93.2% of 5G coverage. Regarding digital public services offered to citizens, France stands at 72.1% getting closer to the 100% EU target.

II. Overview of the Ministry of the Wallonia-Brussels Federation (the Belgian Ministry)

The Ministry of the Wallonia-Brussels Federation, also known as the Fédération Wallonie-Bruxelles, is a significant governmental body responsible for overseeing various public policies in the French-speaking community of Belgium. This ministry plays a vital role in managing education, culture, youth services, and sports within the Wallonia region and the French-speaking population of Brussels.

Headquartered in Brussels, the ministry operates under the leadership of the Minister-President of the Wallonia-Brussels Federation. It comprises several departments and agencies, each dedicated to specific areas such as education, cultural affairs, youth services, law and sports.

The ministry employs many civil servants and staff members, with estimates suggesting around 6000 employees. These individuals work across various departments, including the General Administration of Education, the General Administration of Culture, the General Administration of Youth Assistance, the General Administration of Law Centres, and the General Administration of Sports. Each department focuses on implementing policies and programmes that cater to the needs of the French-speaking community in Belgium.

Through the European Digital Decade programme it is possible to compare the Belgian digital transformation against other Member States. According to the DESI index Belgium is sixteenth out of the twenty-eight countries of the European Union, but also behind the European average. However, if considering only how governments deliver digital public services, Belgium ranks thirteenth among others. Individual country reports on the digital decade are being published from which

¹ The Digital Economy and Society Index (DESI). Building Europe's Digital Future. [europa.eu](https://ec.europa.eu/economy_finance/)

² eGovernment Benchmark 2024 Insight Report. [Europa.eu](https://ec.europa.eu/economy_finance/)

³ France 2024 Digital Decade Country Report. [Europa.eu](https://ec.europa.eu/economy_finance/)

insights can be retrieved.⁴ In 2023, compared to other EU countries, Belgium is strong in its Digitalisation of SMEs and adoption of advanced digital technologies by enterprises. On the public services side, Belgium stands as a frontrunner in the EU space through its eHealth system as 100% of the citizens have access to medical records online among others. Overall, 82.3% of public services are provided digitally to citizens.

III. Overview of the study

Digitalisation is reshaping the world of work, transforming what individuals do in their roles, how and where they perform their tasks, and the skills required to remain employable in a constantly evolving environment. Across all industries, the impact of digital transformation may manifest in several ways:

- New technologies (e.g., artificial intelligence, robotic process automation, etc.) are changing **how tasks are performed** without necessarily replacing existing jobs.
- For some jobs and professions, particularly those involving highly automatable tasks, the adoption of new technologies may lead to a gradual **decrease in demand for these tasks**.
- **New jobs and professions** are emerging, requiring individuals to acquire and develop the necessary skills to seize these opportunities (e.g., prompt engineering, AI ethics auditing).

These impacts will vary depending on the nature of the occupations. Jobs and professions that are less exposed to digitalisation (e.g., cooks, maintenance workers) will also experience changes as well as roles that involve management responsibilities or IT-related tasks, where digital tools are used daily.

Overall, these transformations highlight the growing importance of ensuring that individuals develop the necessary skills to adapt to these changes. This requires not only identifying the specific skills required but also understanding the proficiency levels needed for different jobs and professions in a context where artificial intelligence is becoming increasingly integrated into work practices.

Within the public sector, especially at the European Union level, these issues have been addressed through various initiatives, such as the development of the Digital Competence Framework (DIGCOMP), and the launch of the ComPAct (Enhancing the European Administrative Space) in 2023. Furthermore, the European Commission has launched the Digital Decade policy programme which set concrete targets and objectives for 2030 towards Europe's digital transformation. One of the areas of development is digital skills for which the target is to have 80% of the population with basic digital skills. To ensure to meet the set targets, the Member States must submit to the Commission national roadmaps detailing their action plan. For example, in France and Belgium, public administrations are evaluating employee skills and implementing training programmes for public employees. Initially developed to enhance the *citizens'* digital skills, Pix, a public online digital skills assessment platform, is increasingly used by public administrations to assess *employees'* digital competencies. Since Pix aims to be a reference tool for assessing digital skills internationally, its framework is largely based on the European DIGCOMP framework.

Despite these efforts, there is still room for improvement. For instance, no specific framework currently links digital skills to various public administration professions, making it challenging to define skill customised requirements, support strategies, training programmes, and recruitment processes effectively.

The European Commission has partnered with Deloitte to support the development of digital skills among French and Belgian public employees within the Ministry of Economy and Finance (refers as the French Ministry) in France and the Ministry of the Wallonia-Brussels Federation (refers as the Belgian Ministry) in Belgium. This report on the evolution of jobs and professions is a key component of this broader initiative. It builds on the foundations laid during the initial 2022 meeting between The French Ministry and the Belgian Ministry, during which both countries agreed to jointly use the Pix tool to assess the digital skills of public employees.

Examining the approaches taken in France and Belgium provides a valuable perspective, offering critical insights into the challenges and opportunities surrounding digital skills development within the EU. Both countries have launched initiatives to strengthen these skills and have used the Pix platform for assessment. By examining their experiences, this report identifies best practices and lessons that can be adapted and applied across various public administrations in the EU.

⁴ Belgium 2024 Digital Decade Country Report. [Europea.eu](https://europea.eu)

The report focuses on the impacts of digital transformation on jobs and professions in the French Ministry and the Belgian Ministry. The following illustration outlines the key stakeholders involved in this study across Belgium, France, and the European level, highlighting the collaborative framework supporting the development of digital skills in public administration:



The focus of the study is:

- Highlighting the impact of digital transformation on jobs and professions among the public sector, including the main challenges, and the opportunities to enhance public sector operations, with a focus on the French Ministry and the Belgian Ministry.
- Providing a literature review of trends and their impacts on jobs, skills, tools, and developments driven by digital transformation in EU public administrations. Each trend is accompanied by relevant, real-world examples to illustrate its application and to help administrations pinpoint areas for targeted improvement (cf. Appendix 1 – Digital Trend Analysis).

This report serves as an introduction to the digital skills project led by DG Reform, offering a detailed analysis that will help guide workforce development strategies within Member States' public administrations.

Report methodology

To prepare this report, a comprehensive review of publicly available information was conducted to analyse current and emerging trends. This literature review draws on academic studies, analyses, and reviews, as well as international research on the evolving roles of public employees, with a particular focus on digitalisation and new technologies. It also considers competency frameworks used in both administrations, databases on various professions, and foresight studies on digital skills and the future of work.

To contextualise these findings within the realities of the two administrations, a series of interviews were conducted with public servants from the Ministry of the Economy, Finance, Digital Affairs, and Industrial Sovereignty (the French Ministry) and the Ministry of the Wallonia-Brussels Federation (the Belgian Ministry) in Belgium. Approximately ten interviews were held with French ministry officials and twenty with officials from the Belgian Ministry.

The interviews focused on three main objectives:

1. Discuss the evolution of professions within their directorate/service.
2. Gather insights on how public officials perceive the changes brought by digitalisation.
3. Identify fundamental changes in their work practices (e.g., transformations in how tasks are executed).

This report is primarily based on qualitative analysis, as a quantitative assessment of digital skills within the two administrations is planned. This assessment will analyse the gap between current and desired levels of digital skills.

In France, interviewees included individuals with a strategic perspective on digital development in core ministry areas and Information Technology experts.

In Belgium, the interviews involved a broader range of public employees. This included individuals with a strategic perspective on the organisation, as well as those with a digital focus. From an organisational point of view, change managers and representatives from various services/administrations (i.e., “administrations générales”) were also interviewed.

A summary of the literature review is provided in the main report, with a detailed version available in the appendix.

Report structure

The introduction ([pages 2-4](#)) provides an overview of the key stakes and the scope of the study. It outlines the objectives and sets the context for the subsequent analysis. The methodology ([page 5](#)) explains the adopted approach and the sources used in the report, ensuring transparency in how conclusions were reached. To facilitate the reading and understanding of the study, a table of abbreviations used throughout the report is included ([pages 7-8](#)).

An executive summary ([pages 9-11](#)) offers a concise overview of the report's main findings. It includes a brief context and focuses on a SWOT analysis (strengths, weaknesses, opportunities, and threats) for the digital strategies of both ministries, presenting a high-level synthesis of the challenges and opportunities.

The main section of this report explores the impact of digital transformation on jobs and professions within both ministries ([pages 12-26](#)). This section begins by addressing the challenges faced by both ministries in their digital transformation (I) with two sub-parts: closing the digital skills gap (A) and enhancing governance in ministerial training (B). The report then shifts to opportunities arising from digital transformation (II), which are detailed in three subparts: completing the digitisation process (A), enhancing public services using new technologies (B), and supporting public employees' evolving roles through training implementation (C).

The conclusion ([page 27](#)) highlights key insights and offers recommendations for European administrations aiming to enhance digital skills. It synthesises the findings and positions them within the broader context of digital transformation in the public sector.

Finally, the appendices provide additional details and supplementary analyses. Appendix 1 includes a literature review on digital trends in the European public sector ([pages 28-41](#)). Appendix 2 presents the impact and issues of digital transformation on ways of working ([pages 42-44](#)). Together, these appendices offer valuable context and support for the report's findings.

List of abbreviations

Several abbreviations are used throughout the report. All of them are detailed in the table below.

Abbreviations	Definition
AG	Administration générale (<i>General administration</i>) (BE)
AGC	Administration générale de la Culture (<i>General Directorate of Culture</i>) (BE)
AGE	Administration Générale de l'Enseignement (<i>General Administration of Education</i>) (BE)
AI	Artificial Intelligence
ANSSI	Agence nationale de la sécurité des systèmes d'information (<i>National Cybersecurity Agency of France</i>) (FR)
API	Application Programming Interfaces
Belgian Ministry	Ministère de la Fédération Wallonie-Bruxelles (<i>Ministry of the Wallonia-Brussels Federation</i>) (BE)
BIM	Building Information Modeling
CEN	Centre d'Expertise Numérique (<i>Digital Expertise Center</i>) BE
DESI	Digital Economy and Society Index
DGAFF	Direction Générale de l'Administration et de la Fonction Publique (<i>General Directorate for Administration and the Civil Service</i>) (FR)
DGCCRF	Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes (<i>General Directorate for Competition Policy, Consumer Affairs, and Fraud Control</i>) (FR)
DGE	Direction Générale des Entreprises (<i>General Directorate for Enterprises</i>) (FR)
DGFIP	Direction Générale des Finances Publiques (<i>General Directorate of Public Finances</i>) (FR)
DINUM	Direction Interministérielle du Numérique (<i>Interministerial Directorate for Digital Affairs</i>) (FR)
DPC	Déclaration de Politique Communautaire (<i>Community Policy Statement</i>) (BE)
DPR	Déclaration de Politique Régionale (<i>Regional Policy Statement</i>) (BE)
EAP	Ecole de l'Administration Publique (<i>School of Public Administration</i>) (BE)
EGDC	European Green Digital Coalition Members

ETNIC	Entreprise des Technologies Numériques de l'Information et de la Communication (<i>Enterprise for Digital Technology and Information and Communication Technologies</i>) (BE)
French ministry	Ministère de l'Économie, des Finances et de la Souveraineté Industrielle et Numérique (<i>Ministry of Economy, Finance, and Industrial and Digital Sovereignty</i>) (FR)
GDPR	European General Data Protection Regulation
GED	Gestion électronique des données (<i>Electronic Document Management</i>)
HRIS	Human ressources information system
ICT	Information and Communication Technology
IGPDE	Institut de la Gestion Publique et du Développement Économique (<i>Institute for Public Management and Economic Development</i>) (FR)
IPCEI	Projet important d'intérêt européen commun (cloud)
IT	Information technology
MS	Microsoft
MS TEAMS	Microsoft Teams
NWOW	New Ways of Working
PDI	Plan de Développement Informatique (IT Development Plan)
RMFP	Répertoire des Métiers de la Fonction Publique (<i>Directory of Public Service Professions</i>)
RPA	Robotic Process Automation
SAP	Systems, Applications, and Products in Data Processing
SG	Secrétariat Général (<i>General Secretariat</i>) (FR)
SNCB	Société Nationale des Chemins de fer Belges (<i>National Railway Company of Belgium</i>) (BE)
SNUM	Sous-Direction du Numérique (<i>Sub-Directorate of Digital Services</i>) (FR)

Executive summary

Summary of the main findings

- **Digital transformation within the French and Belgian administrations is well underway**, focusing on areas such as digitalising documents and processes, the use of collaborative tools, electronic document management, and the widespread use of office applications. These initiatives have laid the groundwork for modernising public administration, with significant impacts, present and expected, on competencies, job requirements, and even organisational structures.
- **Despite tangible investments (e.g., tools, training modules, Pix), digital maturity among departments/services and public employees varies considerably.** Each evolves at its own pace, influenced by specific needs and challenges. For public employees, these disparities are also shaped by factors such as job roles, and demographics such as age and levels of education.
- **These disparities, though expected in “field-based” or manual roles that are less impacted by digital processes, have also been observed in roles that use digital tools more frequently.** A key finding is that higher use of digital tools in some professions (e.g., administrative jobs, managerial positions) does not necessarily guarantee the right level of proficiency in regards with digital skills.
- **Underlying challenges contributing to these disparities include: (1) recruitment** processes often overlook digital proficiency; (2) access to appropriate **training** modules is sometimes inconsistent due to the lack of digital skills framework, or training may be recommended but not mandatory and (3) **hesitance towards digital transformation** can emerge (e.g., employees with established working methods).
- **A shared priority has thus emerged in both France and Belgium: developing digital competencies is now indispensable.** More specifically, ensuring a minimum level of digital competency in public administrations is now considered essential for several reasons:
 - Public employees need to understand the basics of **cybersecurity** and possess sufficient digital literacy to handle and protect data securely.
 - Public employees must be able to **access information and communicate** effectively inside and outside their organisations using digital tools.
 - Compliance with new standards and procedures requires an adequate level of digital proficiency.
 - Public employees must develop their knowledge around AI topics such as gen AI as it gets more integrated into their daily work.
- **Achieving the objectives of digital maturity and workforce upskilling requires a sustained, holistic approach that extends beyond basic training.** Therefore, the administrations have acted on several fronts:
 - **Training programmes have been prioritised** to build digital competencies: France's DGFIP introduced a “digital pathway” (an initiative aiming to make DGFIP services more accessible, efficient, and transparent while ensuring the security of users' personal and financial information). While the Belgian Ministry is collaborating with various stakeholders like Pix or the EAP to offer the right trainings programmes.
 - **Studies are being conducted on the impacts of emerging technologies**, including artificial intelligence and robotic process automation: specialised training has been initiated in France to prepare employees to correctly use AI tools. In Belgium, the use of AI through Copilot is being analysed and is considered as a tool to be incorporated into practices.
 - **Efforts to accurately assess employee competencies and conduct follow-ups** have begun: Both French and Belgian public administrations have expressed their willingness to work on strategic workforce planning to enhance talent management processes.
 - **Recognising that digital transformation extends beyond technology**, the two administrations are working on a cultural shift within their organisation. This includes reframing managerial roles, deploying hybrid work models, and adopting collaborative platforms (e.g., Tchap in the French Ministry, and MS Teams in the Belgian Ministry).
 - **Digital priorities are being integrated into the ministries' master plan**

Evolution of jobs and professions in the context of digitalisation: SWOT analysis

STRENGTHS

- **Both ministries have taken major steps towards their digital transition:** The French ministry has dematerialised processes and is testing technologies such as chatbots and AI in projects (e.g., Foncier Innovant). Similarly, the Belgian Ministry uses key tools such as MS Teams and Office 365, alongside a "zero-paper" initiative to streamline operations.
- **A robust digital skills assessment is in place to support their development:** Both ministries leverage Pix, a specialised platform, to enhance the digital skills of public employees. This system is designed to meet specific workforce needs, making it a key asset in their digital transitions.
- **Proven experience in managing large-scale transformations:** The French ministry benefits from the experience of directorates in handling transformations. Meanwhile, the Belgian Ministry shows commitment to upskilling and reskilling its workforce to meet evolving digital needs.
- **Strong collaboration across ministries and administrations:** Both ministries collaborate with other public administrations to refine professional roles and associated skills, supporting the harmonisation of professional frameworks.
- **Governance framework to steer digital maturity:** Within the Belgian ministry, there exists a governance model based on the COBIT framework which helps to steer digital maturity. The model is managed by the digital centre of expertise which also supports the General Secretariat in the decision-making process around digital topics.

OPPORTUNITIES

- **Optimising digital skills development will support smoother digital transitions:** Further enhancing platforms such as Mentor can provide more tailored and specific training programmes, helping both ministries meet their employees' digital skills needs and facilitating smoother transitions to digital processes.
- **Existing role models for digital transformation can accelerate broader adoption:** In the French ministry, many directorates which are already engaged in digital transformations, can serve as examples for other directorates, speeding up the adoption of digital tools and processes across the ministry.
- **A unified data governance framework can improve decision-making and transparency:** The Belgian Ministry can implement a comprehensive data governance framework, ensuring accurate, accessible data across directorates, which would lead to better decision-making and increased transparency.
- **Sustainability and cybersecurity can strengthen operations and public trust:** By integrating enhanced cybersecurity measures and sustainable practices, both ministries can boost operational security and environmental responsibility, building greater trust and accountability in public services.
- **AI and automation present a chance to increase productivity by streamlining routine tasks:** Both ministries can leverage AI to automate tasks such as data entry and document processing. This would free up employees to focus on more strategic responsibilities, thereby enhancing overall productivity.

WEAKNESSES

- **Distributed governance undermines digital transformation efforts:** The French ministry struggles with a lack of centralised governance due to directorate-level autonomy, affecting the coherence of digital initiatives. The Belgian Ministry similarly lacks a unified IT governance framework, leading to inconsistent deployment of tools and management of data.
- **Heavy reliance on external IT providers limits agility:** The Belgian Ministry is dependent on ETNIC, an external IT provider, which hampers flexibility and creates inefficiencies in accessing data and deploying software.
- **Disparities in digital skills across the workforce:** The ministries must deal with varied digital skills among public employees, due to factors such as age, profession type, and educational background, complicating the implementation of new digital tools.
- **A lack of support for employees to take advantage of training opportunities:** Both ministries show insufficient support for ensuring broad digital skill development across the workforce.
- **Digitalisation has not fully achieved the potential for process simplification:** In both ministries, administrative simplification was handled through the digitalisation of its processes which led to inefficiencies as the digitalisation is based on pre-existing processes that have not been fully simplified. Hence digital tools have deployed on non streamlined workflows.

THREATS

- **Hesitant towards digital transformation could slow down the transformation efforts:** Hesitant towards digital transformation is a key concern in both ministries. In the French ministry, some professions are particularly hesitant, while in the Belgian Ministry, fears of job displacement and digital surveillance may slow progress as well as the lack of dedicated time for training.
- **Digital literacy gaps can hinder productivity and career development:** A lack of comprehensive digital literacy training in both ministries' risks creating disparities in employee performance and career progression, which may negatively affect overall productivity, and therefore the success of digital transformations.
- **Sustainability and cybersecurity can strengthen operations and public trust:** Both ministries are at risk of falling behind if they don't quickly adapt to new technologies. The French ministry struggles with a lack of centralised power to standardise digital efforts across directorates, while the Belgian Ministry risks inefficiencies from outdated systems and inconsistent processes if governance remains uncoordinated.
- **Data security risks threaten the success of digital transformation:** The Belgian Ministry faces increasing risks of data breaches as digital operations expand. In addition, gaps in employee understanding of GDPR and data protection protocols pose a significant compliance

The impact of digital transformation on jobs and professions

This section explores how digital transformation impacts jobs and professions specifically within the French and Belgian ministries. It highlights the challenges both ministries face in navigating these transformations (I), while also outlining the opportunities digitalisation brings to these organisations (II).

IV. Overview of the challenges faced by both ministries into digital transformation

Both ministries encounter several challenges arising from digital transformation. Key challenges among these are addressing the digital skills gaps created by these changes (A). Furthermore, the heterogeneity of digital proficiency across directorates and fields of activity adds complexity (B). Variations in digital skills maturity among public employees, often correlated with generational differences, exacerbate the challenges (C).

A. Observed digital skills gap in both ministries

Digital transformation entails profound changes in organisations, ways of working, and the nature of jobs and tasks. Consequently, one of the primary challenges for the public sector is ensuring that public employees possess the necessary digital skills to carry out their tasks. Based on the interviews conducted, a gap was identified between the current level of digital skills among public employees and the level targeted by the ministries. However, this gap is not uniform; it varies across public employees. The following sub-sections provide insight into the factors contributing to this disparity.

Digital culture: The cornerstone of transformation success

The readiness of public employees to embrace digital change is closely linked to the digital culture of their organisations. This culture is shaped by historical experiences, directorate practices, and the capacity to adapt to structural changes. In both the French Ministry and the Belgian Ministry, digital culture plays a pivotal role in determining how quickly employees can acquire and apply new digital skills. The following sections provide a closer look at the specific challenges and dynamics within each ministry.

French Ministry:

Within the French Ministry, more than half of public employees are above 50 years old and are accustomed to the methods they learned early in their careers, which may lead to resistance to change. During interviews, it has been reported that many feel their careers are already established and lack the motivation to adapt their habits.

Historically, recording employees' skill levels has not been part of the Ministry's culture. Assessing and monitoring employee skills and development is a relatively recent initiative, with, for example, efforts in skill management only beginning in late 2023 within the General Directorate of Public Finances (DGFIP).

Certain directorates of the Ministry are more directly impacted by their employees' lack of digital skills due to their specific roles and responsibilities. This is particularly true for the DGFIP. Interviews revealed that while digital tools are part of daily routines, many employees still do not possess the desired level of digital competence. These barriers are attributed to recruitment errors, job transfers, and difficulties in accessing training.

Interviews also revealed that beyond age and job characteristics (i.e., nature of jobs), the digital culture and adaptability of employees are influenced by the history of their directorates, particularly the number of structural transformations they have undergone.

The capacity for transformation also appears to be influenced by directorate size. It was shared during the interviews that smaller directorates, such as the Directorate General for Entreprise (DGE), which are also characterised by greater homogeneity in the types of jobs they comprise, seem better equipped to adapt to changes, as digital transformation affects a more limited number of roles.

Belgian Ministry:

Historically, IT activities within the Belgian Ministry have been managed by an external public agency, the “Entreprise publique des Technologies Nouvelles de l'Information et de la Communication” (ETNIC) created in 2002. ETNIC provides IT infrastructure and deployment services for the public entities of the Belgian Ministry. Its responsibilities include deploying IT equipment (e.g., computers, mice, keyboards) as well as delivering software requested by the Ministry, whether off-the-shelf or custom-designed. This separation has led to several challenges, particularly in addressing skills gaps:

- Reliance on ETNIC centralises digital expertise within the ministry, meaning digitally skilled professionals are predominantly employed by ETNIC rather than integrated within the Ministry's teams. However, exceptions exist such as for the digital expertise centre which resides within the MFWB.
- Legally, the Belgian Ministry is not allowed to hire profiles that fall within ETNIC's scope of work, further limiting its ability to develop internal IT and digital competencies. Nonetheless, business analysts or change managers can be hired within the ministry.
- Based on interviews, there is a perception that these inefficiencies cause a lack of trust in ETNIC as an IT provider. Digitalisation is seen as a threat or as complicating operations rather than simplifying them, with issues such as restricted data access, poor ergonomics, and missed project deadlines.
- ETNIC's role as a data owner creates additional friction, as the Ministry must submit data requests to ETNIC for business reports, contributing to tension between the two entities.
- Inefficiencies have been reported, such as poor responsiveness and agility in software delivery. For instance, the lack of integration between the grant agreement system and the SAP system at the AGE (“Administration générale de l'Enseignement”) leads to duplicated work.

These challenges have prompted the Belgian Ministry to consider reviewing its collaboration with ETNIC in the future as stated in the 2024 “Déclaration de politique Communautaire”.

Within the Belgian Ministry, change managers are appointed in each AG (“Administration générale”) to support public employees in implementing the NWOW project (New Ways of Working). This project aims to modernise the ministry by, for example, introducing temporal and spatial flexibility for employees. Change managers also oversee the digital transformation efforts within the Ministry, focusing on how employees work. Their main responsibilities include ensuring proper adoption of collaborative tools such as Office 365 suite, MS Teams and GED (“gestion électronique des données”). They also propose upskilling initiatives for employees to use these tools effectively. In their point of view, the primary challenge lies in fostering a cultural shift towards adopting new collaborative working methods and ensuring consistent use of digital tools.

This leads to resistance to change and fear of automation which are prevalent challenges in the Belgian Ministry. For instance, at the “Administration générale de la Culture” (AGC), it was quoted that employees hesitate to adopt automation for repetitive or unpleasant tasks, fearing that it could diminish the value of their work. Similarly, concerns about these collaborative tools being used to monitor working hours have been noted. To ensure smooth adoption, it is crucial to address these fears by clearly communicating the benefits of new technologies and providing employees with a vision of how these advancements will positively impact their careers (“What's in it for me?”).

The diversity of scope and job fields as sources of heterogeneity in digital proficiency

The typology and scope of professions play an important role in how digital proficiency is currently shaped. In both countries, hands-on roles tend to exhibit less advanced digital skills. Additionally, the need for advanced digital skills varies depending on the nature of the role and its area of work.

French Ministry:

Interviews within the French ministry revealed that employees in hands-on roles often possess less advanced digital skills compared to their colleagues. However, these employees generally find the tools provided to

them adequate for their daily tasks, and their level of digital proficiency is sufficient to carry out these activities without difficulty. For example, logistics roles benefit from the ability to use provided mobile devices to photograph equipment damage, enabling faster and more reliable reporting.

The interviews also highlighted that the speed at which employees develop digital skills is directly linked to the demands of their roles. For example, it was shared that finance functions quickly required strong digital skills to perform their duties, motivating them to seek relevant training. Another example can be seen in certain Human Resources roles, which are undergoing significant transformations due to the proliferation of interconnected tools. This raises the question of whether these roles should be filled by IT experts mastering these tools or by domain specialists.

Some directorates suggest that a combination of both skills will be required. For instance, within the DGCCRF, a dedicated digital cell is responsible for creating tools tailored to the needs expressed by domain experts. This specialised service provides tools adapted to the evolving practices of public employees. These tools are increasingly used in control roles to address the changing nature of fraud techniques, which are evolving rapidly due to the emergence of digital ecosystems (e.g., new social networks with new economic models, or the creation of cryptocurrencies). This requires detection tools that can adapt just as quickly.

The digital cell also develops tools such as the "Polygraphe", which analyses fake reviews online (on platforms such as Google and Tripadvisor) by identifying patterns and calculating the likelihood of fabricated reviews (e.g., simultaneous posts from the same IP address, recurring declarant names). Moreover, the cell focuses on data reprocessing, such as searching for specific keywords in content, while the economic intelligence cell maps economic networks.

This evolution raises questions about target competencies: should all investigators be trained to use these tools, or should there be specialised experts? Should each directorate have designated resource people? These considerations highlight the growing need for agility and collaboration between complementary profiles, both within and across directorates.

In addition to the impact on specific job roles, interviews revealed that digital transformation is reshaping the roles and responsibilities of managers in the public sector. Managers are becoming both users and sponsors of digital tools, leveraging them to streamline administrative tasks and improve team leadership. This dual role requires managers to be well-versed in the benefits and applications of digital tools. As sponsors, managers must also reassure their teams that work methods can evolve without compromising quality, security, or control over existing processes.

The managerial approach towards teams is also changing. Managers are shifting from traditional hierarchical supervision to a more coaching-oriented style. Modern managers are perceived as increasingly autonomous in digital matters, favouring a management style that emphasises delegation and risk monitoring.

Within IT expert teams, particularly product teams, a cross-functional approach is emerging. Efforts are being made to enhance cross-functionality and efficiency by integrating digital skills with responsibilities for delivering digital services to citizens. This includes developing new services or improving existing ones for the public. Managers will also need to adapt to new decision-support tools, requiring them to understand how these tools operate and the ability to analyse their outputs to make well-informed decisions.

As the profile of the future public employee becomes clearer – more specialised and digitally proficient – directorates face the challenge of recruiting individuals who combine domain expertise with a strong understanding of digital issues and the ability to effectively utilise tools. To address this, training initiatives are being integrated with recruitment strategies to support staff as they navigate these transformations.

Belgian Ministry:

Interviews gave us a first glance at the *perceived* digital proficiency amongst the Ministries' professions. An individual quantitative evaluation further along in the project will allow us to evaluate the accuracy and extent to which the following applies to each of the approximately 200 Belgian Ministry's functions.

Interviews with HR professionals highlighted that HR-related jobs are significantly impacted by digital transformation. The implementation of various digital tools, such as Cornerstone, is driving much of this change and is expected to ultimately simplify HR processes in the long run. However, resistance has been observed among HR employees due to the digitalisation of current HR processes, which alters their established ways of working.

Finance and accounting professionals are also perceived as digitally mature. Having long been accustomed to using digital tools for tasks, these employees are expected to require less support during the transition.

“Field” professions, or hands-on roles, are, on the other hand, less affected by digital transformation, as these functions’ processes typically rely less on IT tools. Nevertheless, it is considered important to involve these employees in the digitisation process to prevent a widening digital divide and to ensure they achieve a baseline level of digital proficiency, needed for any public agent as defined by the ministry.

Finally, greater alignment in digital competencies among top leadership was identified as a key factor that could strengthen digital transformation efforts.

A natural affinity for new digital ecosystems among younger public employees

Age was frequently mentioned in interviews as a factor influencing how easily individuals assimilate new technologies and adapt to new ways of working.

French Ministry:

Half of the employees at the Ministry of the Economy are over 50 years old, presenting several challenges that the Ministry of the Economy and Finance must address. The digitisation of processes and work tools is altering employees’ working habits.

Even though tests conducted within the ministry indicate that age is not a decisive factor in office tools proficiency, feedback received from the interviews suggests that younger public employees tend to be more comfortable mastering tools specific to the current digital ecosystem (e.g., social media platforms, digital currencies, blockchain technology). This natural aptitude for newer technologies is especially beneficial in certain control roles within the French ministry, where understanding the economic models of digital ecosystems is essential for identifying consumer fraud and scams.

To address these evolving needs, the French ministry has established a training ecosystem aimed at fostering a shared digital culture across all employees. The goal is to ensure a common foundation of digital knowledge and skills. The Institute for Public Management and Economic Development (IGPDE), the ministry’s training organisation, centralises programmes accessible to all public employees and develops bespoke training modules in response to directorate requests.

Belgian Ministry:

In addition to age, the level of education was mentioned as a significant factor contributing to the variation in digital skills. Interviews indicated that lower-educated public employees face greater challenges in adapting to digital transformation. At the Belgian Ministry, roles are categorised by the minimal diploma level required. It was noted that employees in roles requiring lower levels of formal education struggle more in keeping up with the digitalisation of the organisation than the others.



KEY TAKEAWAYS

The French and Belgian ministries face a digital skills gap, shaped by organisational culture, generational differences, and job roles. In France, many employees over 50 are resistant to digital change, and digital skill initiatives are still developing. Smaller directorates adapt better but face challenges like recruitment gaps. In Belgium, reliance on external IT services and resistance to digitalisation create inefficiencies. Generational differences are observed, with younger employees more comfortable with digital tools. Both ministries are working on training programmes and recruitment strategies to address these disparities.

B. The role of training: bridging the gap between training objectives and practical implementation

Interviews reveal that both countries face challenges in establishing common training guidelines. While the Pix tool is used in both administrations to assess digital skills, its implementation and utilisation vary

significantly between the two ministries. Although digital training programmes exist, they are currently not followed by all public employees. In France, digital skills training is shaped by both inter-ministerial initiatives and directorate-specific guidelines within the French Ministry. In Belgium, beyond Pix, digital skill knowledge is shared informally among colleagues, with plans to review and update the formal training programmes offered by the “Ecole de l’Administration Publique” (EAP).

The potential for greater use of the Pix tool in digital training

Pix is a tool designed to help users assess and enhance their digital skills through interactive tests. It is commonly used in educational and professional contexts to measure competencies across various areas of digital literacy. The Pix competency framework is based on the European DigComp framework. The tool offers certifications and is utilised internationally. It is recognised as the standard digital assessment tool across both ministries, allowing public employees to assess their skills and access tutorials when needed. However, interviews indicate that the tool is primarily used as a monitoring mechanism for digital skill levels rather than as a resource for skill development. Despite efforts to promote its use through communication campaigns, its uptake remains limited. Employees cite time constraints and the perception that the training pathways offered by Pix are too generic as reasons for its underutilisation.

French Ministry:

The Pix tool is well-regarded within the French Ministry but shows uneven adoption across directorates. For instance:

- Within the DGFIP, 69% of employees completed a Pix assessment after its major rollout a few years ago. It is now highly recommended for all new employees, including permanent staff, contract workers, interns, or apprentices.
- In contrast, adoption within the DGCCRF is much lower, with only 5% to 10% using Pix, reflecting the fact that the Pix assessment is not mandatory. Additionally, it was noted that the tool's content is not well-suited to the investigators' needs.

Although Pix helps assess digital skill levels, it does not currently offer tailored training modules to address deficiencies. The "Pix agent public" project, led by the French government, aims to introduce certified training programmes specifically for public service employees, which could enhance the tool's effectiveness for skill development within the French Ministry.

Belgian Ministry:

It was noted during interviews that Belgian public employees also face challenges with Pix, particularly due to time constraints that prevent them from completing assessments or following up on their results. This is a concern because future career development discussions with supervisors will require employees to complete the digital evaluation test beforehand. Interviewees underlined the need to allocate dedicated time for both completing the assessments and engaging in training to address identified digital skill gaps.

Although Pix effectively evaluates digital skills and provides a diagnosis at the end of the self-assessment with the improvement areas, it falls short in providing personalised training plans to target specific deficiencies. Employees can access their scores, but the tool does not offer a comprehensive overview or tailored guidance for improvement. According to an internal study conducted by the Belgian Ministry, approximately 20% of staff are estimated to be digitally disadvantaged or ill-equipped. This raises serious concerns about the potential implications of expanding Pix within the HR processes of the Belgian Ministry. Addressing digital inclusion for these individuals is essential, particularly given the growing importance of these assessments for career progression.

Pix evaluations are expected to become systematic for recruitment and skills development by 2025. However, significant challenges remain, including the need to consider the impact of AI on job roles and to prepare for emerging technologies. This involves ensuring that current skills are monitored through effective self-evaluations and that future skills are anticipated. To achieve this, the Pix assessments must incorporate new questions covering technologies not initially addressed by the tool.

Digital skills training remains optional

Developing digital skills is a strategic objective for public administrations in both France and Belgium. However, participation in training remains optional for public employees, and not all training needs are being adequately addressed.

French Ministry:

The General Directorate for Administration and the Civil Service (DGAFP) oversees public sector human resources and training policies in France, aiming to modernise the civil service and promote its values. A key focus since 2018 has been the digital transition, with the 2021-2023 multi-year master plan highlighting actions to "accelerate the transformation of the State" using digital tools. Key initiatives include:

- Developing digital skills of public employees and professionals in the digital and IT fields and deploying skills certification.
- Promoting online training to create a dynamic of hybridising of training options.

Despite these priorities, challenges remain. The guidelines are non-binding, there is no dedicated roadmap, and implementation is not systematically monitored. Ministries submit implementation reports to inform future planning, but these processes lack enforceable accountability.

Within the Ministry of the Economy and Finance, the IGPDE (Institute for Public Management and Economic Development) plays a central role in digital training. It offers cross-cutting training, especially in office tools, and has hosted initiatives such as "digital week". However, demand far exceeds capacity, as the IGPDE's small training team (5-6 members) struggles to meet employee needs and keep content updated due to resource constraints. Moreover, the IGPDE does not currently implement professional reskilling plans apart from IT project management roles. While it provides a broad training catalogue, considered particularly comprehensive compared to other ministries, it faces criticism for its inability to regularly update offerings or adapt them fully to directorates' needs.

Belgian Ministry:

At the Belgian Ministry, the importance of continuous learning for key competencies, including digital skills is highlighted in the "Contrat d'administration" (the Belgian Ministry's 2020-2025 strategic plan). Upskilling public employees in digital competencies is recognised as essential. However, interviews revealed that despite this being a well-defined goal, the Belgian Ministry lacks a structured training programme to meet these ambitions. On top of that, there is no obligation from the public employees to follow these trainings. Furthermore, public employees often struggle to find time for available options, such as Pix self-assessments, which hinder progress in closing digital gaps.



KEY TAKEAWAYS

The French and Belgian ministries face challenges in aligning digital training with practical needs. Both use Pix to assess skills, but adoption is inconsistent. In France, uptake is high in some directorates but low in others, and Pix lacks tailored training. In Belgium, time constraints and informal knowledge sharing hinder effectiveness, with 20% of staff digitally disadvantaged. Despite strategic goals, structured training programmes are missing, and participation is optional. Both ministries need to enhance Pix's capabilities, introduce tailored training, and ensure time for skill development to close the digital divide.

C. Enhancing coherence and continuity across governance levels in ministerial training

Enhancing coordination in ministerial training governance

The current governance of training platforms presents challenges, as public employees often do not use these tools as intended.

French Ministry:

The MEFSIN operates according to a decentralised governance model, where each directorate oversees its own training programme within the framework of a ministerial training strategy for transversal projects.

To strengthen the coordination of ministerial actions in terms of training, the ministry has adopted, since 2022, a strategic guidance document for transversal professional training, established in coherence with the professional training master plan for the entire State civil service, developed by the DGAFP.

This ministerial strategic document aims to define the common-interest transversal training priorities for all directorates and services of the ministry. It is mainly structured around four priority areas, including the acceleration of the State's digital transformation. The axes and actions of the ministerial document are also reflected in the training plans of each directorate.

This strategic roadmap is subject to monthly coordination, led by the General Secretariat, with the training correspondents of the directorates in order to implement the ministerial training axes and promote the pooling of best ministerial practices.

Belgian Ministry:

The 2019-2024 DPC ("Déclaration de Politique Communautaire") underscored the importance of continuous education to equip both public employees and citizens with essential digital skills. However, disparities in digital literacy remain a persistent challenge. As laid out throughout this report, the Belgian Ministry is actively working to address this gap to ensure consistent digital competency levels across all public employees.

Specifically, when it comes to training governance, the Belgian Ministry benefits from a dedicated learning centre, the Ecole Administration Publique (EAP). Historically focused on managerial training, the EAP has recently expanded its offerings to include digital skills courses to better reflect organisational realities. Key courses include training in Excel, Power BI, data governance, and data visualisation. As already mentioned, initiatives are underway to ensure the EAP training offering matches the concrete needs of French-speaking public employees (the target audience of EAP extends beyond the Belgian Ministry agents).



KEY TAKEAWAYS

Coordination and governance in training remain a challenge for both the French and Belgian ministries. Within the French Ministry the decentralised organisation of governance regarding training limited the sharing of best practices. However, since 2022, the implementation of a strategic guidance document for transversal professional training has provided a ministerial action framework and promoted the pooling of actions.. The Belgian Ministry benefits from the Ecole Administration Publique (EAP), which has expanded its digital training, yet it continues to adjust offerings to better meet the needs of its public employees. Both ministries are working to ensure more consistent digital competency across their workforces.

V. Overview of the opportunities faced by both ministries in digital transformation

To overcome the challenges outlined earlier, ministries can capitalise on the opportunities presented by digital transformation. This includes utilising digitisation to enhance public employees' ways of working (A), adopting new technologies to improve the quality of public services (B), and implementing targeted training initiatives to help employees adapt to evolving roles (C).

A. Completing the digitisation process for public employees' daily activities

Both ministries are in the process of digitising their workflows, but the speed and extent of adoption vary across directorates. While some roles are advancing more quickly and are comfortable with the changes, others face challenges that require dedicated support to bridge their digital gaps.

Digitalisation accelerated by COVID-19: Transitioning to a paperless organisation

The COVID-19 pandemic compelled the service sector to adapt to remote work while maintaining productivity, accelerating the prioritisation of digitalisation and remote working practices in public administrations⁵. Below are examples of how this transformation has unfolded in both ministries.

French Ministry:

Interviews revealed significant progress in reducing paper-based procedures within the French ministry. Roles in control and finance are almost fully digitised, whereas areas such as HR and certain legal professions are still transitioning, albeit with notable advancements. For instance, part-time work requests can now be submitted entirely online, though some processes, such as submitting sick leave certificates, still partly involve paper in certain directorates.

Traditionally characterised as operating in silos and heavy administrative tasks, public employees are now better equipped to meet citizens' needs efficiently through platforms that facilitate direct connections. This transformation depends on employees' soft skills and the administration's ability to establish a governance model that encourages technological and operational integration both within and across directorates. For instance, Télérecours facilitates legal appeals by filing and tracking the case digitally. Collaborative tools have also gained widespread acceptance, with remote work practices receiving high employee satisfaction. Specific ministry tools are used to ensure sovereignty and confidentiality.

Belgian Ministry:

At the Belgian Ministry, the push towards digitalisation also accelerated during the pandemic. Public administrations adapted rapidly to remote work and digitised paper-based processes, resulting in greater flexibility and efficiency.

Administrative roles, such as secretaries and file managers, have faced challenges adapting to a "zero-paper" environment, requiring significant changes to their workflows. Archivists, for instance, must manage the growing digitisation of physical documents. Meanwhile, "field" jobs rely on fewer IT tools but still need support to address "digital debt"⁶.

All public employees within the Belgian Ministry have access to personal accounts, enabling them to perform tasks such as submitting holiday requests. However, it was quoted that less tech-savvy employees sometimes delegate these tasks to colleagues, sharing their credentials – a practice that poses serious security risks.

The rollout of Microsoft (MS) Teams and the Office 365 suite has significantly transformed administrative functions. However, employees in "field" roles, such as kitchen assistants and cooks (comprising about one-

⁵ The 10 government trends reshaping the postpandemic world

⁶ « Digital debt » was a recurring expression in the interviews, showing that the MFWB internalised the idea that it is significantly behind in technology. One wonders if this widespread idea is not partially limiting for the MFWB to move forward.

seventh of all employees), have limited interaction with IT tools and often face barriers in equipment and adapting to digital processes. Therefore, addressing this digital divide is essential, particularly during the shift toward a paperless organisation.

Ensuring better data management and flow to increase organisational efficiency

Effective data management is recognised by ministries as a key lever for improving organisational efficiency and enhancing the quality of processes. From the citizen's perspective, it also enables better service delivery.

French Ministry:

The digitisation of processes within the French Ministry is considered as nearly complete, significantly reducing the reliance on paper documents. Nonetheless, this transformation has often retained pre-existing processes that could benefit from simplification through the more strategic use of digital tools. This need for simplification is closely tied to improving data management practices. Ongoing efforts to optimise data management include:

- Strengthening data protection protocols;
- Systemising monitoring activities to ensure data reliability;
- Enhancing data accessibility, including for individuals with disabilities;
- Improving archiving practices.

To support these initiatives, the ministry has reorganised services and teams, creating a dedicated team of data scientists focused on data management and analysis. However, as digital transformation evolves, these skills will need to be disseminated among subject matter experts to ensure widespread proficiency in data handling.

At an interministerial level, the "Dites-le-nous une fois" ("Tell Us Once") initiative, led by the Direction Interministérielle du Numérique (DINUM)⁷, is designed to reduce administrative burden on users. By leveraging APIs (i.e., Application Programming Interfaces), this programme enables the automatic sharing of data across ministries. For example, tax data submitted to the French Ministry can be shared to calculate school meal fees without requiring citizens to resubmit the same information. However, the relevance and utility of data sharing between directorates within the same ministry remains limited.

Cloud technologies are widely used for data storage and management, yet most public employees, apart from those in IT, are unaware of their reliance on these tools. Cybersecurity and data privacy awareness campaigns are regularly conducted to address these gaps. Resistance to digitisation also exists, with fears among some employees of being "dispossessed" of their skills by new technologies, which can undermine motivation. Furthermore, some managers continue to favour paper processes, despite the growing adoption of tools such as electronic signature folders.

Belgian Ministry:

Interviews with business units and ETNIC within the Belgian Ministry reveal a lack of integration of digital tools used within the organisation. This jeopardises the efficiency and quality of work delivered by public employees. Inconsistent data across tools prevents the establishment of a single source of truth, leading to slower and less effective decision-making. Additionally, the absence of a centralised database results in public entities repeatedly requesting the same data from citizens.

An opportunity exists to implement a centralised user information management platform. However, this requires:

- A detailed understanding of the ministry's value chain to design citizen-centric digital solutions.
- Overcoming contextual barriers such as complex relationships with ETNIC and the business units' desire for data ownership.

To overcome these barriers, the 2024-2029 DPC (Déclaration de politique Communautaire) outlines a strategic push towards greater integration and the adoption of digital solutions, including the establishment

of a single-window platform like the federal “*itsme*” initiative, allowing citizens to access multiple public services through a centralised digital portal. This platform aims to simplify citizen interactions with public administrations by offering a seamless and secure authentication process for multiple services.

The ministry is also in the process of adopting Cloud technology, a key enabler of digital transformation and integration. This shift in data storage methods is particularly important as it promises to streamline data management and improve accessibility across directorates. However, resistance to Cloud adoption has been noted, primarily due to concerns over data storage locations and security, a challenge that was exacerbated by a past data storage incident within the Administration Générale de l'Enseignement (AGE). Despite this resistance, the transition to Cloud technologies presents an opportunity to centralise data storage and improve data flow across the organisation, provided that targeted training and guidance are offered to employees. The adoption of Cloud technology, combined with the ongoing push for a unified data management approach, will facilitate the eventual creation of a centralised platform for user information, making data access and sharing more seamless and efficient.

In parallel with the data integration efforts, the ministry faces challenges with the governance of digital collaboration tools. In the change managers interviews, it was revealed that there is a need to effectively govern digital platforms such as GED and MS Teams. These tools, while integral to the digital workplace, are currently used in non-standardised ways, leading to inefficiencies, duplication of efforts, and difficulty in centralising data. The lack of a clear directive on which platform to use for specific purposes has contributed to the fragmented usage of these systems.

To address this, there is a need for better governance frameworks to standardise the use of collaboration tools across the organisation. This would help eliminate redundancies, improve data organisation, and ensure that employees are using the most appropriate platform for their tasks. A well-structured approach to platform governance would facilitate better data integration, supporting the goal of a single, centralised data flow. Addressing these areas to create a more seamless and trustworthy digital experience can play a pivotal role in enhancing employees' confidence in and likeability of the tools and, ultimately, their digital usage and skills.



KEY TAKEAWAYS

Both ministries are making headway in digitising workflows, though progress varies across directorates. In France, significant advancements have been achieved in areas like finance and control, while others (e.g., HR) are still in the process of transitioning. The Belgian Ministry has also shown progress, particularly during the pandemic, however, certain roles, particularly in those involving fieldwork, face challenges in adapting to digital tools. Both ministries aim to bridge digital gaps by providing targeted support, including remote work solutions, and digitising paper-based processes. This ongoing shift towards a paperless environment presents opportunities for greater efficiency but requires ongoing adaptation to new workflows.

B. Enhancing public services through the use of new technologies

Emerging technologies are poised to significantly transform work practices in the coming years with widespread adoption anticipated across staff in both ministries. These technologies are not just reshaping administrative processes but are also empowering public servants to perform tasks more efficiently, resulting in better service delivery. Key areas of transformation include:

- **Task automation through AI and low-code tools:** The automation of routine tasks via AI and low-code platforms is expected to free up significant time for public employees, enabling them to focus on more strategic and relational aspects of their work. For example, HR officers may have job advertisements drafted by AI but will be responsible for verifying the final content. This shift will necessitate that employees develop enhanced analytical skills to assess AI-generated outputs critically.
- **Cloud usage democratisation:** While the adoption of Cloud technology is expected to have a greater impact on digital professions, particularly those in IT support, its direct effect on most other public servants is anticipated to be minimal. However, the broader shift towards Cloud

environments will increase accessibility to data and applications, contributing to greater operational efficiency.

- **RPA usage democratisation:** Robotic Process Automation (RPA) is expected to become more widespread, particularly in the form of citizen relationship services such as ChatBots. These systems will reduce the number of staff needed for first-level user interactions, but human contact will still be necessary for more complex cases or when AI cannot resolve specific issues. Not all citizens are currently equipped to use these digital services, highlighting the need for maintaining human support in certain instances.
- **Hybrid working modalities:** The ongoing shift towards hybrid work environments demands public employees master a variety of digital tools such as project management software, instant messaging platforms, and integrated document management systems. This transformation aims to enhance remote collaboration while maintaining effective work processes and access to resources.
- **Systematisation of monitoring activities:** To ensure the relevant use of digital resources such as intranets and online documentation, which are sometimes outdated, regular review processes will be essential. Keeping these systems up to date will ensure that staff can effectively access the most current information and tools.

As emerging technologies become more widely adopted, particular emphasis is being placed on AI, with the identification of several public service use cases projected to grow in the coming years.

French Ministry:

In the French public sector, efforts are underway to identify AI use cases, particularly in Human Resources roles, where daily activities are expected to be significantly impacted.

To prepare for the evolving role of Human Resources in the context of AI adoption, the DGAFFP published the study "Stratégie d'usage de l'intelligence artificielle en matière de gestion des ressources humaines dans la fonction publique"⁸ (Strategy for the use of artificial intelligence in human resources management in the public sector) in June 2024, coinciding with the conclusion of the latest multi-annual master plan. The study highlights that the SIRH roadmap, effective from March 8, 2023, for the 2023-2027 period, was updated in late March 2024 to include a new objective focused on integrating AI. It outlines potential applications of AI across various HR domains and activities, including:

- **Attractiveness and Recruitment:** AI tools will assist in drafting job descriptions, evaluating candidate skills, sorting applications, conducting automated video interviews, and reducing cognitive biases during recruitment. AI may also predict candidates' potential success and create personalised onboarding paths.
- **Personnel Management:** AI can automate certain administrative tasks, such as scheduling shifts, and handling routine personnel processes.
- **Training and Skill Development:** AI could provide personalised training recommendations, develop personalised learning, provide real-time feedback, identify emerging skills, as well as track and evaluate public employees' progress, allowing for more targeted learning and development.
- **Retention and Engagement:** AI could analyse survey results, predict employee departures, personalise benefits, improve recognition/reward systems, provide mentoring and career development, and enhance organisational culture.
- **Performance and Management:** AI will assist in goal analysis, feedback evaluation, job planning, and identifying emerging skills within the workforce.
- **Work-Life Quality and Mental Health:** AI will be used to monitor employee well-being, detect mental health concerns early, analyse colleague relationships, develop personalised well-being programmes, and measure the return on investment of well-being actions.

Based on the study of the DGAFFP, numerous benefits are expected from AI, such as: (1) time savings for managers and HR services; (2) expanded analysis fields; (3) optimisation of HR service offerings; (4) anticipation of changes; (5) facilitation of managers' and HR services' work; (6) personalisation of HR service offerings; (7) improvement of public employees' situations; (8) better agent support; (9) harmonisation of HR

⁸ Stratégie d'usage de l'intelligence artificielle en matière de gestion des ressources humaines dans la fonction publique d'Etat

processes; (10) articulation of different HR tools and processes; (11) development of a forward-looking approach in HR management.

However, there are risks related to AI in HR management: (1) sensitivity of data used by AI, in terms of the European General Data Protection Regulation (GDPR); (2) managerial disempowerment; (3) psychosocial risks and social tensions; (4) persistence of cognitive biases from faulty algorithmic programming such as data bias, algorithmic bias, and cognitive bias; (5) loss of job attractiveness due to the dehumanisation of HR services.

AI projects extending beyond HR applications are actively being deployed in France, demonstrating the technology's broad potential. For instance, the Albert tool has been introduced to optimise public employees' workflows, enabling them to focus more on the relational aspects of their roles. Additionally, AI is being used to pre-process environmental project submissions for regional environmental directorates, streamlining evaluation processes. Another noteworthy initiative is the deployment of Aristote, an AI-driven tool designed to provide students with personalised quizzes and support their academic revisions.

A striking example of AI application in the French Ministry is the detection of undeclared swimming pools, part of the "Foncier Innovant" project. This initiative leverages AI to analyse aerial imagery and other tax administration data, enhancing the efficiency of property tax assessments.

In parallel, other technologies such as RPA (Robotic Process Automation) are gaining traction within the ministry. These tools are particularly effective in automating routine processes and improving service efficiency. For instance, in HRIS systems, tasks such as payroll management are fully automated, complemented by the generation of detailed reports, reducing manual effort, and improving accuracy.

Belgian Ministry:

Within the Belgian Ministry, AI technologies are still in the testing phase. Interviews revealed that while the technology is expected to significantly change work practices, its application remains unclear. Managers noted that AI tools are primarily being tested by the most tech-savvy profiles within the ministry.

The Belgian Ministry has expressed its commitment to AI integration in public services through the 2024-2029 DPC (Déclaration de Politique Communautaire). This integration is seen as "a new frontier in digital transformation". AI-driven solutions are expected to optimise service delivery, reduce operational costs, and enhance decision-making processes across various sectors such as healthcare, mobility, and administrative services. This forward-looking strategy reflects a balanced approach that prioritises innovation while addressing ethical concerns, particularly privacy and data security.

Like the French ministry, the Belgian Ministry is also evaluating AI opportunities. The Centre d'Expertise Numérique (CEN) has initiated trials with tools like COPILOT, which assists in tasks such as formatting and summarising meeting notes and proofreading documents. These developments raise important questions about the appropriate use of such tools and their accessibility within the workforce. To fully harness the potential of AI, upskilling employees remains a critical priority.

As observed with previous digital transformations within the ministries, the introduction of new technologies such as AI may provoke employee resistance due to concerns over task displacement. However, interviews highlighted the ministry's commitment to reskilling employees whose roles might evolve because of new technologies. Moreover, there is a recognised need to increase awareness of the security and ethical implications associated with AI adoption.

Interest in no code/low code technologies is also growing, as these platforms offer employees greater autonomy in developing applications. The long vision is to integrate these tools into daily workflows, either independently or with IT assistance.

Similarly, dashboard capabilities are in the early stages of development, reflecting a growing interest in their use. Consequently, initiatives to improve digital literacy, including explanatory videos and masterclasses on tools such as low code and Power BI, are being launched.

The primary challenge ahead lies in enabling public employees to adopt and effectively use these technologies while critically assessing their added value in daily operations. As these tools continue to evolve, managers have noted a widening disparity in digital skills among employees', increasingly tied to their specific roles. Bridging this skills gap will be essential to ensuring the successful integration of AI and other emerging technologies.



KEY TAKEAWAYS

Emerging technologies are expected to transform public service delivery across both ministries. In the French Ministry, AI is studied through HR processes, with applications ranging from recruitment to employee well-being monitoring, which promises to save time and enhance service efficiency. Other technologies, such as RPA, are also being deployed to automate routine tasks. In Belgium, AI is still in its trial phase but holds significant potential to optimise decision-making. Both ministries are exploring low-code platforms to give employees more autonomy in developing applications, but a key challenge remains in equipping employees with the skills needed to effectively utilise these tools, especially given the growing disparities in digital literacy.

C. Supporting public employees' evolving roles through training implementation

Both the French Ministry and the Belgian Ministry have acknowledged the urgent need to upskill public employees to meet the demands of evolving roles and technological advancements. As a result, both administrations are actively developing and refining training programmes. A primary concern identified is the insufficient allocation of dedicated time for professional training, which significantly hampers participation. Addressing this challenge is a priority for ensuring the success of these initiatives.

French Ministry:

The ministry is part of a coordinated interministerial effort to improve digital competencies among public employees. This involves deploying training tools such as Mentor and skills assessment tool such as Pix, alongside developing systems to monitor and evaluate skills within ministries.

Since March 2021, the Mentor⁹ public service training platform has been operational across several French government ministries under the management of the General Directorate of Administration and Public Service (DGAFP). The platform serves two main objectives:

- To provide public employees with on-demand, self-service training, while safeguarding their right to professional development.
- To allow, amongst others, ministries, public service schools, and interministerial directorates, to implement and manage their training plans within secure, dedicated spaces.

Mentor is accessible to all public employees without the need for prior approval from their supervisors, offering flexibility in training access. The French Ministry integrated its employees into this system since the end of 2024.

In addition to the Mentor platform, the Pix project for digital skills continues to gain traction. The "Pix agent public d'Etat" initiative aims to create tailored learning pathways for public employees, with deployment already underway in ministries in France such as the Ministry of Economy and Finance, the Ministry of Armed Forces, and the Ministry of Labour and Employment. The programme envisions a general pathway for all employees, followed by role-specific tracks (e.g., senior managers and executives). Ultimately, all employees are expected to complete their respective pathways. Currently, Pix results are confined to the Pix platform, and ministries have their statistics. DINUM does not have access to these results. The goal of "Pix agent public d'Etat" also seeks to integrate Pix with Mentor and connect it to all ministries' HR management systems (SIRH).

Additionally, the DGAFP developed the human resources management tool utilised in the French public service (Public Service Job Directory (RMFP)). This project took more than two years to complete. Currently, the DGAFP is working on updating this job directory and the associated competencies, a process expected to be lengthy due to the necessary involvement of various public employers. Decisions on key matters, such as competency assessments and, more specifically, the choice between employee self-assessment or integrating an evaluation into their annual performance reviews, remain under discussion.

⁹ mentor.gouv.fr

Belgian Ministry:

At the Belgian Ministry, the Pix platform has been introduced to all public agents. A first campaign for self-assessment of digital skills has been launched, but interviews with HR and change managers reveal a significant challenge already mentioned previously in this report: employees lack sufficient time to complete their self-assessment. Despite this, these evaluations will soon be essential for discussion on career progression.

The primary goal of Pix assessments is to recommend learning opportunities tailored to employees' professional profiles. However, at present, Pix is only used for assessments, and the ministry's digital learning catalogue remains incomplete. Existing e-learning offerings (e.g., courses on PowerBI, Excel, MS Teams, GED) are available, but their effectiveness is limited, particularly for employees with low digital proficiency. Interviews also highlight that employees often lack the motivation or time to engage with these training resources. To address these issues, the ministry is collaborating with the "Ecole de l'Administration Publique", a public entity that provides training to employees of the "Société Publique Wallone" and the Belgian Ministry. This partnership will co-develop tailored, instructor-led training programmes to better align with employee needs and overcome the current limitations of e-learning formats.



KEY TAKEAWAYS

The French and Belgian ministries recognise the need to upskill public employees in response to evolving roles and technologies. In France, platforms such as Mentor offer flexible training, but time constraints remain a challenge. In Belgium, Pix is used for self-assessment, but employees struggle with time and motivation, particularly those with lower digital skills. To address these, the Belgian Ministry is partnering with the École de l'Administration Publique to develop tailored, instructor-led programmes. Both ministries are refining their strategies to improve engagement and effectiveness.

Conclusion

Key takeaways and insights for European administrations on digital skill enhancement

For the past twenty years and accelerated by the constraints induced by the Covid-19 crisis, digital transformation has profoundly disrupted public sector organisations. The urgency to maintain public services has pushed organisations to adapt their processes and ways of working. New technologies, such as communication and collaboration tools, cloud computing, and the emergence of AI and RPA tools, offer substantial opportunities to revolutionise the operations of public sector entities across European Union member states.

Both ministries face several challenges in their digital transformation efforts, characterised by digital skills gaps influenced by organisational culture, generational differences, and job roles. Notable issues include resistance to change among older employees and a reliance on external IT services. Enhancing the digital skills of public employees is crucial for optimising organisational processes, achieving cost savings, and improving the quality of public service delivery, especially in today's strained financial context.

Challenges in aligning digital training with practical needs have been observed. The use of Pix is inconsistent and lacks tailored training, further hampered by time constraints and reliance on informal knowledge sharing. This leaves 20% of Belgian staff digitally disadvantaged. To bridge the digital divide, both ministries need to enhance Pix, introduce customised training to their staff, and allocate dedicated time for skill development. Moreover, both ministries struggle with training coordination and governance. France's decentralised oversight hampers best practice sharing, while Belgium's EAP improves digital training but needs refinement. Both aim for consistent digital competency across their workforces.

This report also highlights numerous opportunities for the French and Belgian ministries. The digitisation process for daily activities is progressing but at different rates. In France, finance and control have advanced significantly, while HR is still transitioning. Belgium made notable progress during the pandemic, though "field" jobs struggle with digital tools. Both aim to bridge digital gaps through targeted support, remote work solutions, and digitising paper processes, moving towards a more efficient, paperless environment.

Furthermore, emerging technologies are transforming public service delivery and offer opportunities for improvement for both ministries. The implementation of new tools such as those derived from AI (e.g., image recognition to detect potholes to clean or using the COPILOT tool to automate report writing), RPA (e.g., for automating the payroll process), and cloud computing (e.g., the "Cloud at the Centre" initiative led by the French government and detailed in the report's appendix) improve the quality of public service delivery.

Lastly, both ministries aim to enhance the digital skills of public employees. Developing effective training programmes focused on these skills is essential. Despite ongoing initiatives, such as the common use of the Pix tool to assess digital proficiency, the main challenge lies in organising and clarifying the governance model around these training programmes to ensure effective upskilling. This must be done while considering the specific change culture and job roles within each ministry.

Lessons for other administrations:

- Estimating the resistance level to change of employees concerning digital-related subjects and identifying related variables that contribute to this resistance (e.g., sectors of activity, job nature);
- Identifying digital trends, as well as the ongoing and potential evolutions within the organisation due to the implementation of digital initiatives (e.g., the evolution of processes, ways of working, services provided);
- Ensuring that the technologies provided offer significant added value, enabling them to function as genuine "digital partners" for the agents using them;
- Analysing the gap between the current level of digital skills and the desired state;
- Defining relevant training programs, ensuring their relevance, and ensuring their successful implementation, accessibility, and dissemination within the organisation.

Appendix

Appendix 1 - Digital Trend Analysis

A. Concepts and implications

To deepen the understanding of the context that influences the professional practices of public officials, this section is structured as a funnel. Initially, the relevant concepts will be defined, followed by an analysis of current digital trends across several levels. This analysis will cover the increasing digitisation of the workplace, how European institutions are leveraging these new practices, and the specific actions taken by France and Belgium to implement these policies at their respective levels.

This approach meets two objectives:

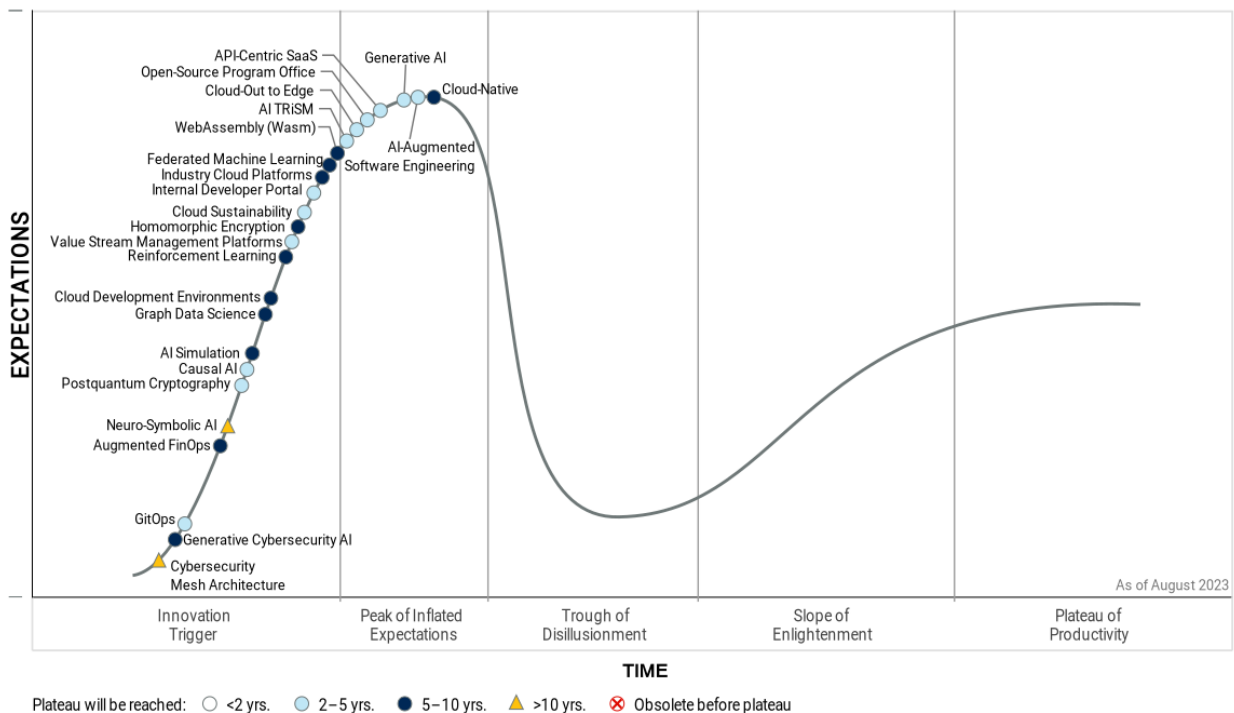
- A. Demonstrate the challenges posed by digital technology at each level;
- B. Highlight the coherence and complementarity of the approaches undertaken by various actors.

Specific terminology is used in the remainder of the document, which is detailed in the table below.

Expression	Definition
Digital transformation (digitalisation) ¹	Digital transformation is the use of digital technologies to radically improve the performance or reach of an organisation. It's a new way to deliver products, improve processes, and meet the well-being needs of consumers and citizens.
Technology Trend ²	An evolution of technologies in a particular field that organisations will face in the coming years.
Industry 4.0 ³	Industry 4.0 represents the fourth industrial revolution. It is driven by technological development to create a digital manufacturing company that is not only interconnected, but communicates, analyses, and uses information to drive additional intelligent actions.
Internet of Things ⁴	It describes physical objects (or groups of such objects) that are embedded with sensors, processing ability, software, and other technologies that connect and exchange data with other devices and systems over the Internet or other communications networks.
Robotic Process Automation (RPA) ⁵	The use of intelligent automation technologies to perform repetitive office tasks of human workers, such as extracting data, filling out forms, moving files, and more.
Artificial Intelligence (AI) system ⁶	AI refers to machine-based systems that can, given a set of human-defined objectives, make predictions, recommendations, or decisions that influence real or virtual environments. AI systems interact with us and act on our environment, either directly or indirectly. Often, they appear to operate autonomously and can adapt their behaviour by learning about the context.
Machine Learning (ML) ⁷	ML is an approach that learns from data how to achieve certain objectives, and logic- and knowledge-based approaches that infer from encoded knowledge or symbolic representation of the task to be solved
Application Programming Interface (API) ⁸	An API is a set of rules or protocols that allows software applications to communicate with each other to exchange data, functionality, and performance.
Cloud Computing ⁹	A technology that allows users to access software and applications from anywhere, while they are hosted by a third party, in "the cloud".
Hyperscalers	<i>Hyperscalers</i> provide cloud computing and data management services to organisations that require extensive infrastructure for large-scale data processing and storage. Examples include Amazon Web Services, Google Cloud, Microsoft Azure, IBM Cloud, and Alibaba Cloud.

Some of these technologies are already integrated into our daily lives, while others are considered emerging technologies that are poised to have a strong impact on the future of the world of work. As illustrated by the "Gartner Hype Cycle for emerging technologies 2023", technologies related to cloud computing, AI, and automation processes in general are currently at the forefront of public debate. The transformations and developments that these technologies can bring to the public sector are being monitored very closely. These technologies will be discussed in more detail in the following sections.

Hype Cycle for Emerging Technologies, 2023



Gartner.

B. Analysis of current digital trends

In a post-Covid world where digitalisation of the world of work has accelerated, the current challenge is to reconcile the increasing requirements in efficiency and competitiveness with the need to adapt professional practices within the private sector

In the wake of the COVID-19 pandemic, the acceleration of digital transformations has profoundly disrupted many sectors. This evolution is manifested through four major dimensions. First, it redefines productivity standards by offering more efficient tools and platforms. Second, it transforms interactions between individuals, promoting remote collaboration and connectivity. It revolutionises the space-time of work by allowing increased flexibility through teleworking and agile schedule management. Finally, this digital transformation has repercussions on working conditions. Those dimensions affect both the private and public sectors. Indeed, a preliminary analysis of global digital trends, particularly within the private sector, appeared pertinent given that over time, governments have consistently followed the private sector into the new world of work that is transforming organisations around the world. Thus, understanding the challenges that private sector organisations must face enables one to anticipate the challenges that public sector organisations may encounter when confronted with the same transformations (e.g., difficulties arising from the emergence of certain new technologies such as Cloud Computing or Artificial Intelligence). It is a question of better understanding how European public administrations have taken up these different subjects to design a European strategy in terms of the digitalisation of their ways of working.

The study of effectiveness and efficiency in processes that drive productivity gains in the private sector is an expanding field

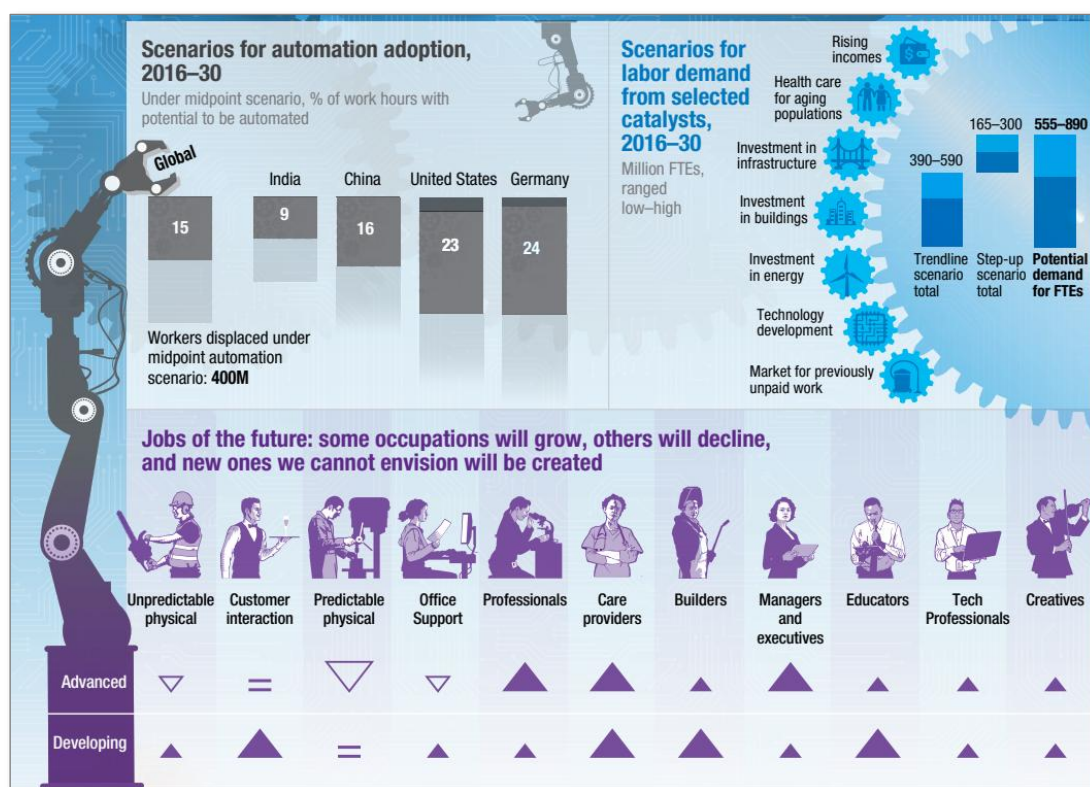
In the secondary sector, the advent of Industry 4.0 offers unprecedented opportunities to increase factory productivity. Pioneering companies such as Siemens EWA¹⁰ have seized this opportunity by automating up to 75% of their production processes. Siemens has equipped its production lines in the EWA division with PLCs and software technologies to merge IT with digital automation and production monitoring technologies.

¹⁰ Siemens EWA, Industry 4.0 laboratory. (n.d.). PDF

This transition to automation not only optimises operational efficiency but also frees employees from repetitive activities, driving innovation and long-term growth.

The same phenomenon is taking place in the tertiary sector, APIs (Application Programming Interfaces) have become essential tools, revolutionising the way companies like BNP Paribas¹¹ approach their fund administration and distribution processes. This technology-driven approach aims to maximise efficiency by reducing the number of interruptions, processing time, and providing an enriched customer experience. In addition, in the banking sector, exceptions related to various regulations are observed. The management of these exceptions depends on access to large volumes of data, which must be updated in real time. Thus, APIs have considerable potential to contribute to and facilitate these updates and processing processes. By capitalising on this technology, BNP Paribas seeks to consolidate its position as a leader in the financial sector, offering its clients innovative solutions and personalised services.

Automation technologies, including artificial intelligence and robotics, will bring significant benefits to users, businesses, and economies by enhancing productivity and fostering economic growth. The degree to which these technologies displace workers will depend on the pace of their development and adoption, economic growth, and the demand for labour. While some occupations may decline, automation will transform many more — 60 percent of occupations have at least 30 percent of their constituent work activities that could be automated. It will also create new occupations that do not currently exist, much like previous technological advancements. According to McKinsey & Company, by 2030, between 75 million and 375 million workers (3 to 14 percent of the global workforce) will need to switch occupational categories. Furthermore, all workers will need to adapt as their occupations evolve alongside increasingly capable machines. Some of these adaptations will necessitate higher educational attainment or spending more time on activities that require social and emotional skills, creativity, advanced cognitive abilities, and other skills that are relatively difficult to automate.¹²



A pursuit of efficiency in internal communication and collaboration

The integration of collaborative tools such as Teams, Skype, and Slack has a significant impact on business productivity, as revealed by a recent study by McKinsey¹³. This use allows a significant improvement of 20 to 25% in the productivity of people performing intellectual tasks, mainly thanks to the facilitation of remote

¹¹ APIs: The Key to Success - Securities Services. Securities Services (2022). [BNP Paribas.fr](https://www.bnpparibas.fr)

¹² Jobs lost, jobs gained: workforce transitions in a time of automation, MCKINSEY GLOBAL INSTITUTE, 2017

¹³ The social economy: Unlocking value and productivity through social technologies (2012). McKinsey.com

and asynchronous collaboration. Indeed, on average, a worker¹⁴ spends about 28% of their week managing their emails and nearly 20% looking for internal information or finding colleagues who can contribute to specific activities. By enabling real-time communication, task coordination, and quick access to information, these platforms increase team efficiency and speed up the overall decision-making process. In addition, they simplify internal and external communication by allowing fluid exchanges, even remotely, which helps to reduce delays and errors related to the transmission of information. As a result, companies that fully integrate these tools into their work environment have a clear competitive advantage in an ever-changing environment.

Before the pandemic, many individuals spent 85% or more of their weekly time engaged in collaborative work, such as answering emails, instant messaging, attending meetings, and utilising various team collaboration tools and spaces. This figure has only increased throughout the pandemic, with no signs of abating as we transition into different forms of hybrid work. The issue lies in the conventional wisdom surrounding teamwork and collaboration, which has fostered an excess of the wrong kind of collaboration, negatively impacting performance, health, and overall well-being. Research indicates that the most successful individuals were distinguished not by larger networks, but by more efficient ones. By adopting a more purposeful approach to collaboration, the studied individuals were 18-24% more efficient than their peers¹⁵.

A challenge for the evolution of working space and time management

The democratisation of remote work has paved the way for remote working, offering the freedom to work outside of traditional offices. This evolution is made possible not only by the flexibility of employees but also by the evolution of technological equipment. The ATAWAD (Any Time, Any Where, Any Device) concept, which refers to a computing environment that can be accessed anytime, anywhere, on any device, reflects this transformation. According to a recent Forbes study on "Remote Work Statistics and Trends in 2024",¹⁶ in 2023, 12.7% of full-time employees¹⁷ are working from home, while 28.2% are adopting a hybrid style. This trend therefore concerns a significant part of the working population, highlighting the transition to a more flexible working environment that is adaptable to individual needs.

The organisation of the working day has also changed in recent years. It is now characterised by greater flexibility in working hours, the emergence of asynchronous collaborations, and sometimes even the adoption of the 4-day working week. An illustration of this phenomenon is that of Perpetual Guardian, a New Zealand company that recently introduced the 4-day working week while maintaining the pay for 5 days. The results are convincing: stress levels have dropped by 7 points, while commitment and motivation have increased by 5 points. This initiative demonstrates that alternative working models can not only improve employee well-being but also increase employee performance and engagement.

Repercussions on working conditions need to be considered

The rapid evolution in technology is leading to significant changes in working conditions, affecting various aspects such as the autonomy of employees, the know-how required, responsibilities, interpersonal relationships, and the very meaning of work.

However, the survey report titled "Usages et impacts de l'IA sur le travail, au prisme des décideurs"¹⁸ reveals a striking difference between the perception of real users and the preconceptions of non-users regarding the repercussions of technologies on the professions. It appears that those who use new technologies are more likely to discern the benefits they bring to their daily lives, while those who do not tend to be wary of the potentially negative impacts on their working conditions. This divergence highlights a fear of the unknown, which is one of the major challenges¹⁹ of this digital transition. In addition to that, the results of the second European Skills and Jobs Survey show that people²⁰ who fear losing their job in the next 12 months or fear automation are more likely to participate in training for digital skills. The same goes for experiencing technological change with task replacement and having a positive attitude towards technology.

¹⁴ Data based on an online survey of 4261 respondents across sectors, geographies, company sizes, tenures, and functional specialties.

¹⁵ [Where we go wrong with collaboration, Harvard Business Review, 2022](#)

¹⁶ Remote Work Statistics and Trends in 2024 (2023). Forbes Advisor. [Forbes.com](#)

¹⁷ Data based on a representative sample of the US population.

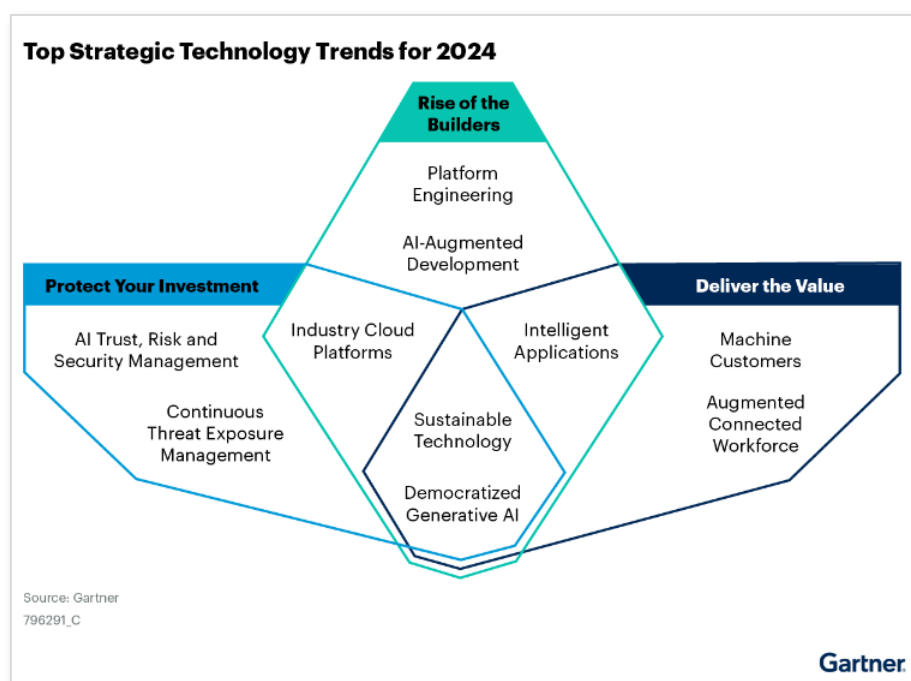
¹⁸ Survey report Uses and impacts of AI on work, through the prism of decision-makers (2023). LaborIA Explorer. [PDF](#)

¹⁹ What drives workers' participation in digital skills training? Evidence from Cedefop's second European skills and jobs survey (2024). [Joint Research Centre and Cedefop](#).

²⁰ Survey sample based on 46,213 adult employees from all EU Member States plus Norway and Iceland

Faced with these upheavals, European public administrations are embracing these new practices to meet their objectives

According to the specialist firm Gartner, the use of new technologies in public administrations is based on three pillars considered strategic in the “Top Strategic Technology Trends for 2024”²¹ study: environmental protection, collaboration between humans and machines, and optimisation of procedures. This observation is shared by several studies conducted notably by consulting firms such as Deloitte²², KPMG²³, PwC²⁴, and EY²⁵.



Within European public administrations, the adoption of these new technologies aims to respond to five major challenges. Firstly, the objective is to improve the citizen experience by placing it at the centre of concerns (A), while reorienting the activities of public officials towards higher added-value activities (B) and reducing the environmental impact of digital services (C). These innovations are also used to facilitate cooperation between European administrations (D) and to strengthen digital sovereignty (E).

Improving the citizen experience and the efficiency of associated procedures

The digitalisation of public services and administrative procedures has accelerated, modernising relations with users. From now on, certain formalities such as requests for the creation of documents or renewals can be done online, simplifying procedures, and offering direct access to administrative information. The primary goal of this development is to strengthen information security and provide more advanced services to citizens. In addition, the digitalisation of public services offers many advantages for the administrations and citizens such as the reduction of administrative costs, free transmissions, and the simplification of procedures, allowing 24/7 access, immediate transmission of documents, and a rapid circulation of information. For EU citizens, the creation of the European Digital Identity incorporates the benefits listed previously. More concretely, it enables the users, through a digital wallet available on mobile phone apps and other devices to identify online & offline, store and exchange information provided by governments e.g., name, surname, date of birth, nationality, store, and exchange information provided by trusted private sources, use the information as confirmation of the right to reside, to work, or to study in a certain Member State²⁶. However, this technology still has some challenges to overcome²⁷. Firstly, the inclusion of the adoption and use by the citizens, thus accessibility aspects are key. Secondly, due to the personal nature of the data, it is crucial to

²¹ <https://www.gartner.com/en/articles/gartner-top-10-strategic-technology-trends-for-2024>

²² *Seven pivots for government's digital transformation*, Deloitte Insights, 2021

²³ *Voices on 2030, Digitalizing governments*, KPMG, 2022

²⁴ *Creating the smart cities of the future*, PwC, 2019

²⁵ *Building the digital state*, EY, 2019

²⁶ European Digital Identity, European Commission, [European Commission](#).

²⁷ EU Digital Identity Wallet, [European Commission](#).

ensure a high level of security and reliability of the technological component. A third challenge would be the integration of the Digital Identity Wallet with trusted third parties such as banks, government agencies, or healthcare providers. Finally, it must provide a reliable system in terms of access management to prevent unauthorised access and ensure that is granted only to authorised individuals.

This digitalisation affects many European areas and countries. For example, in Estonia²⁸, each citizen benefits from a fully dematerialised medical record, where all the data is centralised and regularly updated according to their health status. This initiative not only simplifies access to medical information but also the monitoring of the evolution of individuals' health, demonstrating the concrete benefits of digital transformation in the public sector.

Reorienting the activities of public officials towards higher-value tasks

By putting people at the heart of digital transformation efforts, public actors can maximise the benefits of digitalisation. One of the main European objectives in terms of digital transformation is to reorient the activities of public employees towards high-added-value activities.²⁹ To do this, the goal is to automate activities that can be automated such as typing or copying via the use of AI or RPA. Thus, the time saved can be spent on high-added-value activities, allowing public officials to demonstrate their expertise. This use of technology aims to optimise the efficiency of processes while enhancing the skills and know-how of public sector employees. For example, in Spain³⁰, the Ministry of Justice has made available to professionals and officials of the judicial administration a technology based on artificial intelligence (AI) with the aim of "making the activities of civil servants and professionals of the administration of Justice more efficient, as well as improving the experience of citizens when they make use of the services offered by the Ministry." Among the services set up by the Spanish Ministry of Justice is the use of a tool to anonymise the personal information contained in documents to reduce the risk of the person's whereabouts or the fraudulent use of data.

Building responsible and sustainable digital services

Aware of the future challenges related to digital, Europe wants to strengthen the capacities of public administrations to lead the green transition and increase their resilience, by assessing and reducing their carbon footprint. Thus, in terms of respect for the environment, the European Commission has initiated the "Declaration of the European Green Digital Coalition Members (EGDC)³¹" whose objective is to maximise the benefits of digitalisation in terms of sustainability, by investing in green innovations and developing methods and tools to measure the impact of technologies on the environment. More concretely, Austria created the Digital Amt platform³² to offer citizens access to digital public services, such as electronic payments and digital forms, reducing the need for physical documents and promoting sustainability.

In addition, Europe is aware that, in the context of increasing digitalisation, protection against cyber threats is now crucial. This is why, in November 2022, the European Parliament updated EU legislation to strengthen cybersecurity investments for critical services and infrastructures, as well as to increase EU-wide IT security rules. In addition, the European Commission is also implementing its cybersecurity ambitions through the Cyber Solidarity Act³³ to strengthen the EU's capabilities to detect, prepare, and respond to large-scale and significant cybersecurity threats and attacks. Some European countries are also investing in their cybersecurity at a national scale: for instance, Poland has enhanced its cybersecurity investments through the National Cybersecurity System Act, which mandates increased spending on cyber defense for public institutions and critical infrastructure. The act aims to improve national cyber resilience and protect against emerging threats³⁴.

Facilitating cooperation between administrations

Europe wants to accelerate the digital transformation of the European public sector by putting interoperability and cross-border cooperation at the centre of its project. In doing so, it wants to support Europe's 2030 digital goals by making key public services accessible online to all EU citizens, without discrimination. This cooperation framework promotes cross-border data exchange and promotes the adoption of interoperable and reusable digital solutions while removing possible administrative barriers to cooperation. To highlight this

²⁸ Council of Europe. Estonia – Digital Health System. Human Rights and Biomedicine. (2024). [Coe.int](https://coe.int)

²⁹ *2030 Digital Compass : the European way for the Digital Decade*, European Commission, 2021

³⁰ Justicia ofrece tecnología basada en inteligencia artificial para mejorar sus servicios. (2023). lamoncloa.gob.es

³¹ European Green Digital Coalition. (2024). Statement - European Green Digital Coalition. [Statement](https://www.digitalaustria.gv.at/enq/services/Digitales-Amt_Digital-Office.html)

³² https://www.digitalaustria.gv.at/enq/services/Digitales-Amt_Digital-Office.html

³³ Commission welcomes political agreement on Cyber Solidarity Act. European Commission - European Commission. europa.eu

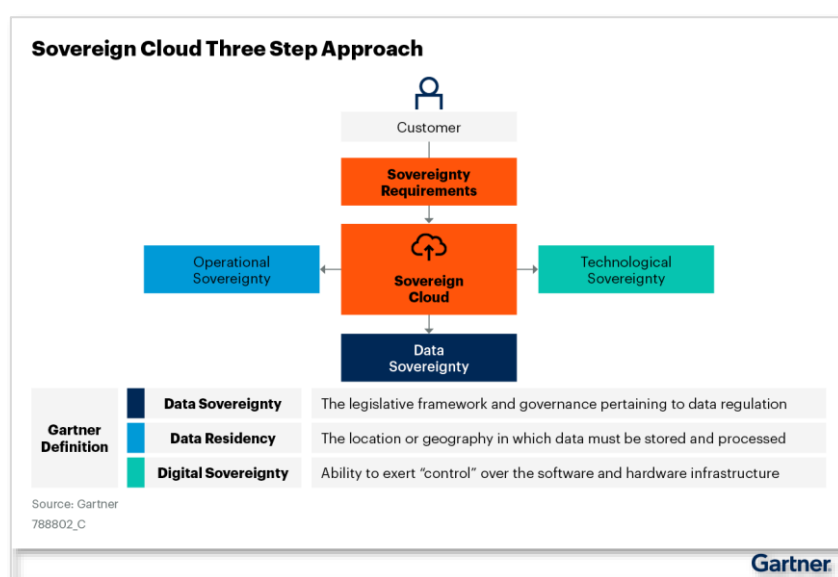
³⁴ *Poland – Cybersecurity Strategy of the Republic of Poland 2019-2024*, European Commission, 2023

international approach, the European Commission has launched a series of projects promoting exchanges between the countries concerned. Thus, the "Open e-TrustEx" platform ³⁵ is offered to public administrations at European, national, and regional levels to establish secure exchanges of digital documents between users or systems. This platform enables the secure exchange of files with end users via eTrustEx Web or machine-to-machine via eTrustEx Node.

Nevertheless, cooperation between European public administrations in digital transformation faces significant challenges, including technical interoperability issues, divergent legal frameworks, and data privacy concerns. Cultural and organisational differences, such as varying administrative traditions and resistance to change, further complicate collaboration. Disparities in funding and digital maturity across regions create gaps in capabilities, while the lack of central coordination and complex governance structures hinder effective joint initiatives. Additionally, varying levels of cybersecurity readiness and trust between administrations pose risks, and differing levels of political will and public support can impact the success of collaborative efforts. Addressing these challenges requires harmonised standards, coordinated governance, and strong political and public commitment.

Building digital sovereignty

The European Union's digital sovereignty is emerging as a crucial challenge in its digital transformation; it illustrates the need to guarantee the independence and security of the data of administrations and citizens in an increasingly digitised environment. In the face of growing concerns about reliance on foreign technologies and risks to data privacy, European governments are working to strengthen their ability to control and protect their digital infrastructures. This involves the development of national and international capacities in key areas such as cybersecurity, cloud computing, artificial intelligence, the development of regulations promoting interoperability, and the protection of personal data. European projects have been launched to encourage digital sovereignty within the European space. One of these flagship projects is a French and German initiative called Gaia-X³⁶, which corresponds to the development of an efficient, competitive, secure, and reliable decentralised cloud computing infrastructure for the European Union, its institutions, and its users.



Gartner, Top Trend in Government: Sovereign Cloud - Sovereign Cloud Three Step Approach

Each European country adapts this strategy at its level, considering its national specificities, which leads to distinct differences in terms of digital maturity within the European Union. In this context, we will study how France and Belgium fit into this landscape, considering their national initiatives for modernisation.

³⁵ Open e-TrustEx - ISA2 - European Commission (2019). ISA2 - European Commission. europea.eu

³⁶ PRESS RELEASE Paris, March 11, 2024 N°1622 Gaia-X: the digital ecosystem and ... -Ministry of Finance. gouv.fr

France and Belgium, faced with similar challenges as other European administrations, have made the modernisation of their public services the core of their transformation efforts

In this European landscape of digital transformation, France and Belgium are like other countries in terms of digital maturity. Indeed, following the four criteria (digital competitiveness, infrastructure, and connectivity, integration of digital technologies by companies, and digitisation of public services) of the latest DESI ranking³⁷, France is twelfth and Belgium sixteenth out of the twenty-seven countries of the European Union.

In line with the European strategy, these two countries have been focusing a large part of their efforts for several years now on the digitisation of public services (internal and external) (A) and are also taking up emerging topics considered strategic for the future such as the Cloud, AI and RPA (B).

This long-term effort shapes the essence of France's and Belgium's initiatives surrounding the digitisation of public services

Indeed, the first step in the digital transformation is the digitisation and digitalisation of public services. It aims to replace paper-based processes with solutions with many advantages aligned with national issues. It optimises administrative processes and reduces errors and costs while facilitating access to services for all. In addition, it increases the transparency of administrative processes and contributes to the protection of sensitive data against the risk of cyberattacks. Finally, it participates in the overall effort to reduce the ecological footprint by limiting paper consumption and physical travel. This digitisation of processes and activities can take many forms depending on the needs of citizens. In Belgium, several political layers intervene to determine these efforts toward public digitisation. In this section, we will introduce the ambitions as expressed by Fédération Wallonie Bruxelles and will examine how they differ, meet, or complement the ambitions expressed by the other governmental layers within Belgium.

Belgian Ministry

Over the course of the writing of this report, federal and regional elections were held in Belgium and new governments were formed. In July 2024, the new majority in FWB issued their 2024-2029 “Déclaration de Politique Communautaire” (DPC), laying out the future Government’s ambitions, including its digital ambitions.

A first comparison of the 2019-2024 and 2024-2029 DPCs shows the following similarities when it comes to their digital ambitions:

The 2019-2024 DPC touches on modernising internal processes but doesn't place as strong an emphasis on the digitalisation of public administration as it does on education. There is a general desire to improve the efficiency of services and better integrate digital tools into public governance, but the focus is more on collaborating with education sectors rather than overhauling public administration processes directly.

The document mentions improving public service delivery through better management and training but stops short of specific, in-depth digital transformation plans for public servants. The emphasis is more on consultation with educational actors rather than on transforming the internal operations of public institutions.

2019-2024 DPC was then translated into the Administration Contract 2020-2025, outlining several digital tools and software initiatives designed to support the Belgian Ministry's modernisation efforts. A central component is the Plan de Développement Informatique (PDI), which focuses on implementing the necessary IT infrastructure to meet strategic goals. The plan includes digital solutions that enhance data management, improve internal and external service delivery, and streamline administrative processes. The public IT agency, ETNIC, plays a key role in ensuring that these tools align with the overall digital transformation strategy.

The contract emphasises the importance of advancing the digital maturity of the Ministry to meet the evolving demands of citizens and internal users. To achieve this, there is a strong focus on adopting reliable and modern digital tools that reduce redundant tasks and improve data management. These improvements facilitate better decision-making and enable more efficient service delivery across various platforms. A comprehensive omnichannel strategy aims to simplify interactions with citizens, ensuring accessibility through multiple communication channels such as online portals, phone services, and in-person support.

³⁷ The Digital Economy and Society Index (DESI). Building Europe's Digital Future. europa.eu

Additionally, the contract promotes the digitalisation of administrative processes, meaning that paperwork will be reduced, and operations streamlined, increasing transparency. Better data management practices are also highlighted, with commitments to improving data quality to support informed governance and decision-making. The Ministry also seeks to promote open data initiatives, encouraging the sharing and reuse of data across sectors to enhance transparency and foster collaboration.

A key part of the contract is introducing a more flexible and digital-centric work culture. This includes increasing the use of teleworking and providing employees with the digital tools necessary for remote collaboration. The COVID-19 crisis accelerated this shift, and now the contract prioritises embedding these practices into the long-term working culture. Additionally, there is a strong emphasis on continuous digital skills training for employees, ensuring they can adapt to evolving technologies and work efficiently in the new digital environment.

The 2024-2029 DPC also presents ambitious goals for the public administration. It emphasises a large-scale digital transformation of public services, aiming to automate and digitise administrative procedures to improve service delivery. This includes:

- Digitisation of administrative tasks, to streamline interactions between public institutions and citizens.
- Automation of rights management to make it easier for citizens to access services, along with the introduction of AI and data management strategies to improve efficiency.
- A focus on creating a more interoperable and interconnected system across different public services, ensuring better coordination and smoother transitions between services.

The document also outlines the reform of ETNIC (the IT agency serving the Belgian Ministry), which is tasked with accelerating the digital transformation of the Belgian Ministry's public services. This includes the development of digital tools and infrastructure necessary for this transition.

There is a strong focus on reducing administrative burdens for public servants. The DPC 2024-2029 introduces measures to simplify administrative tasks through digitalisation, including:

- The "only once" principle, where citizens and organisations only need to provide information once, with data shared across different directorates;
- Streamlining complaint management and ensuring quicker responses to citizens through digital tools.

While pushing for digital transformation, the 2024-2029 DPC recognises the need for human interaction, particularly for vulnerable groups facing the digital divide. It promises to maintain physical access points and personalised services to ensure digital tools don't exclude anyone.

Finally, there is a mention of training and engaging public servants in this digital transformation. Public employees are expected to adopt new digital tools and methodologies, with the goal of improving their efficiency and service delivery. The government plans to equip them with digital skills and resources to manage this transition.

To conclude, DPC 2024-2029 emphasises automation, AI, and the complete digitisation of administrative processes while ensuring human support for those affected by the digital divide.

Wallonia

The Walloon Government's regional digital policy as laid out in the "Déclaration de Politique Régionale 2019-2024" (DPR) focuses on expanding online services, promoting the use of public data, and ensuring accessibility in the digital transformation of public administration. Like FWB, the policy aims to modernise public services while addressing the digital divide, ensuring that vulnerable groups are not left behind. Key initiatives include improving digital governance, particularly by strengthening the role of IT leadership (CIO) across public institutions and developing a training program to install digital culture among civil servants. The plan also emphasises fostering public entrepreneurship, offering solutions to governmental challenges, and simplifying administrative processes through a multi-channel approach, including the creation of a centralised digital platform like "*itsme*"³⁸ at the federal level. Moreover, it seeks to enhance digital procedures in urban

³⁸ itsme is a digital identity solution that allows users to securely verify their identity online, log in, confirm transactions, and sign documents. Developed in Belgium, it is a single mobile application that eliminates the need for multiple passwords or card readers.

planning while keeping services universally accessible. Lastly, the policy encourages collaboration between administrations and subsidised associations for streamlined administrative processes.

Flanders

The Flemish Government has published a complete data strategy for the public service in collaboration with Deloitte. Flanders' Digital Strategy is designed to establish a robust and integrated data-driven governance framework, to leverage data to enhance public services, create societal impact, and stimulate economic growth. Similarly, to the MFWB, the approach to digital transformation focuses on the development of the right governance model and increase their digital skills. The strategy is centred around four key action domains: a general framework, data literacy, ecosystem collaboration, and data governance.

The general framework emphasises the creation of a shared conceptual structure to standardise communication and collaboration across government entities. It involves clarifying the central services available to these entities, enabling them to adapt the strategy to their specific needs. This framework ensures that all data-related initiatives are aligned and consistently monitored, with each government entity expected to translate the strategy into specific actions relevant to their domain while adhering to the overarching principles.

To ensure effective data use across the government, Flanders is committed to enhancing data literacy among its employees, particularly focusing on middle management. This includes basic training programs to broaden data skills among non-experts and specialised training for data experts. The government also plans to scale up its data-driven workforce by promoting Flanders as an attractive employer for data professionals and fostering a central network of data experts to facilitate knowledge sharing.

The strategy also highlights the importance of improved collaboration within the government and with external partners. This includes making data more discoverable, accessible, and reusable through initiatives like the MAGDA platform and the Flemish Open Data portal. Additionally, the strategy aims to address data gaps by identifying areas where new data sources are needed and working with partners to fill these gaps. Legal frameworks and agreements will be streamlined to facilitate easier and more secure data sharing.

Improving data quality and governance processes is another critical aspect of the strategy. The government will establish shared data quality standards and metadata practices to ensure that data is accurate, consistent, and secure. The strategy also focuses on professionalising data governance by clearly defining roles, processes, and responsibilities. This will help build trust in the responsible use of data, ensuring that data is used ethically and in compliance with privacy and security standards.

The strategy will be implemented through an evolving annual action plan, encompassing both short-term projects and long-term programs. Progress will be monitored by the Flemish Information and ICT Steering Committee, ensuring that initiatives effectively contribute to the strategy's goals. Continuous communication and updates will keep all stakeholders engaged and informed.

Federal

Finally, the federal government shows strong commitment and ambitions toward digitalisation through its Secretary of State for Digitalisation, in charge of Administrative Simplification, Protection of Privacy, and the Buildings Agency, attached to the Prime Minister. The Federal Public Service Support and Strategy issued a Federal Action Plan for Administrative Simplification to implement the federal government's ambitions in terms of administrative simplification and digitalisation, also known as the "Kafka Plan". Drawn up in January 2022, the Plan's associated roadmap and specific progress were not accessible to the public.

France

In France, the DINUM is responsible for defining digital transformation strategies and initiatives within the public sector. The main axes of the strategy for the transformation of public action are providing public services closer to users, making simpler and more accessible procedures, and ensuring clearer and more efficient public intervention³⁹. Several initiatives are currently underway to enhance the quality of public services. A key priority is to improve the quality of online public services and enhance the user experience. Now, the 250 most used administrative procedures by the French are accessible online. Furthermore, the implementation of "FranceConnect" has streamlined online procedures, allowing citizens to use a single

³⁹ *Notre stratégie pour la transformation de l'action publique*, DITP, 2018

account to access over 1,800 online services. Another illustration is the “France Identité” piece of software⁴⁰ offers the creation of a digital copy of the identity card, and more recently of the driving license. It aims to allow holders of the new identity card to authenticate themselves online to access public or private services while browsing the internet.

Emerging topics receiving increasing resources: Cloud, AI and RPA

France and Belgium are showing a growing interest in emerging technologies such as the Cloud, Artificial Intelligence, and Robotic Process Automation. These innovations are at the heart of governments' digital strategies and aim to improve the efficiency of public services, strengthen data security and drive innovation across many sectors.

1) Investments in the Cloud

The French and Belgian governments are naturally attracted by the many advantages of cloud computing. It provides high availability and resilience, reduces downtime, and helps to bring services to market, while allowing people to pay only for what governments use. In addition, its stretchability and elasticity ensure adaptability to changing needs.

The French government has launched the "Cloud au centre" approach⁴¹, making the Cloud the default mode of hosting and production of State's digital services for any new digital project. This partly forces central administrations to use the Cloud for any new digital project. Thus, teams that do not want to prioritise the cloud for their projects of at least one million euros must document their choice with the DINUM by providing a comparative analysis of the scenarios. In addition, for projects of more than nine million euros, the control of the "Cloud au centre" approach is integrated into the control procedure for major State IT projects.

To strengthen these convictions, France has created and made available interministerial Clouds such as Nubo, which is operated by the DGFIP to host sensitive data, and Pi, which is operated by the Ministry of the Interior and adapted to the hosting of sensitive data. These internal Clouds fully managed by the government guarantee data security and reinforce the challenges of digital sovereignty. Other Cloud initiatives accompany these projects. The national Cloud strategy linked to the France 2030 investment plan, coordinated by the DGE, supports innovation and the development of the national ecosystem of Cloud service providers, aimed at strengthening digital sovereignty and French competitiveness in the field of Cloud computing. The creation of the SecNumCloud security visa, issued by the ANSSI, identifies, and promotes trusted Cloud offers, guaranteeing high standards of security and confidentiality for the data of French companies and administrations. Thus, recently, 27 new startups and SMEs joined the SecNumCloud security and qualification system, the “Projet important d'intérêt européen commun” Cloud (IPCEI) in collaboration with Germany was launched, and a call for projects to strengthen the Cloud service offer was published, showing a strong commitment to the development of secure and innovative Cloud solutions in France.

Belgium's cloud strategy is different from the French one. Even though the cloud is not per se mentioned in the DPC of the government, national companies like Proximus are moving in that direction to remain relevant in current Cloud trends. Indeed, Proximus⁴² is launching a sovereign cloud project totally disconnected from the "classic" network in collaboration with the hyperscalers Google and Microsoft. However, this project should allow total control of the data by the administrations by isolating them on the internet.

2) Investments in AI

In the same way, the two states have chosen to invest in artificial intelligence (AI). AI improves operational efficiency by facilitating decision-making through predictive analytics and automating repetitive and time-consuming tasks. Thus, it frees up public officials and allows them to focus on missions with a higher added value for which their expertise is required. In addition, according to Gartner's "Top Technology Trends in Government for 2024" study, by 2026, 70% of government agencies will use AI to improve decision-making at all levels: strategic, managerial, and the ones requiring an important volume of data.

In France, since 2017, the Government has initiated an in-depth reflection on the development of artificial intelligence, leading to the development of a national strategy structured in two main phases covering the period from 2018 to 2025. The first phase, running from 2018 to 2022, focuses on building AI research

⁴⁰ Digital, France Identity. France Identity. gouv.fr

⁴¹ *Cloud at the center: the doctrine of the State*. (n.d.). numerique.gouv.fr.

⁴² Belgian-Luxembourg partnership between Proximus Group and LuxConnect in the field of Cloud. The Luxembourg Government. gouvernement.lu

capacity, with massive investments in research centres and collaborations with academic and industrial institutions. The second phase, from 2021 to 2025, aims to train and attract the best talent in the field of artificial intelligence, through specialised programs and incentives for AI researchers and professionals. At the same time, calls for projects dedicated to AI are regularly launched to encourage innovation and the development of new applications in various sectors. Following this, in 2023, the first experiment of the use of generative AI in French public services took place. Since this launch, around 1,000 volunteer public employees have been using this AI to write responses to users' online reviews and comments. This initiative is part of the Public Services+ programme, led by the Interministerial Directorate for Public Transformation. The aim is to improve the efficiency and quality of interactions between public services and citizens, while exploring the possibilities offered by generative AI to optimise administrative processes. This is the case, for example, of the Ministry of Agriculture, which uses IAlim⁴³, a decision-making tool to better target health controls in catering establishments identified as the most at risk. This artificial intelligence software analyses the comments and ratings left by consumers on digital platforms such as TripAdvisor or Google to recommend the public employees responsible for controlling establishments likely to violate the regulations. In addition, the Ministry of Transformation and the Civil Service also uses AI, through the Mistral 7B solution, to develop responses to online comments from users on the Public Services+ platform⁴⁴. An experiment carried out in 2023 would reveal that this tool could reduce response times by more than 50% in this use case, from nineteen to just three days.

In Belgium, the digitalisation of SNCB⁴⁵ is a perfect example of the use of AI for the benefit of citizens. They use cameras and image recognition to count passengers on trains and platforms and to map the flow of people. Information is collected and shared automatically, optimising processes. For passengers, the introduction of this AI solution has provided detailed and accurate information about trains, while the transfer to other modes of transport has been improved.

3) Investments in RPA

Finally, RPA (Robotic Process Automation) is also part of the current digital transition of the French and Belgian governments. Its use improves operational efficiency by automating repetitive and tedious tasks, and thus, like AI, frees up public officials for more complex tasks with a higher added value. In addition, thanks to this automation, it reduces human errors, thus increasing the accuracy and quality of the work. According to Gartner's "Top Technology Trends in Government for 2024" study by 2026, more than 60% of government organisations will prioritise investments in RPA compared to only 35% in 2022.

This technology is present in multiple sectors within public bodies. Indeed, in France, the first application of RPA was implemented in 2021, based on a ministerial experiment, to automate the sending of Chorus purchase orders to suppliers by email⁴⁶. Until now, this action was performed manually by Chorus users. At the end of 2021, 5 robots were sending between 600 and 800 purchase orders daily in a fully automated manner. Many other automations have been implemented within French public administrations in recent years. For example, DINUM, in collaboration with Orange Business Services, is developing a single, scalable API-based portal for the State's interministerial network. We can also mention FranceConnect, the National Health Insurance Fund, and BNP Paribas Cardif, which are joining forces to simplify the processing of claims and the compensation process.

Belgium, on the other hand, is taking advantage of RPA to allow workers⁴⁷ to refocus on their core tasks and thus increase security. The automation of administrative tasks, such as the automatic filling of tickets, the use of the ID card reader to replace the old paper procedure, or the automatic ticket control in public transport are notable.

To adapt to these new practices and realise the promise of task automation, personalisation of services, and improved operational efficiency, as the day-to-day activities of public employees' jobs could change, government professions need to learn new skills. It is now a question of zooming in on the impact of digital transformations on the professions of the Ministry of the Economy, Finance and Industrial and Digital Sovereignty and the Belgian Ministry.

⁴³ IAlim, the digital tool that targets restaurant controls. Ministry of Agriculture and Food Sovereignty. gouv.fr

⁴⁴ Derouet, T. Laurent Blanc (Services Publics+): "With Mistral 7B, we have reduced response times by more than 50%! ». (2024) - IT For Business. itforbusiness.fr

⁴⁵ Artificial intelligence: state of play in the Belgian public sector – News Center. (2020). microsoft.com

⁴⁶ Chorus Coeur and Chorus Forms – Agency for Financial Information Technology of the State. economie.gouv.fr

⁴⁷ The digitalisation of Belgian public services, the impact on service delivery, work and trade union strategy. (2020). HEC Liège.

Appendix 2 – Consequences of digital transformation on working methods

This appendix provides a non-exhaustive list of the concrete impacts of digital technology on various working methods. Technological trends make it possible to identify activities that could soon be performed by new tools. To seize this opportunity, professions will need to mobilise and/or develop new skills.

A. Working methods impacted by digital transformation

The following section details the main day-to-day activities that are directly impacted by digital transformation.

Writing activities

Technological advances in the field of writing save valuable time and improve the efficiency of administrative processes. This allows the public employees concerned to focus more on tasks that bring a higher value thus where their expertise is required.

Artificial Intelligence is the technology that has had the most impact in this field. It allows, for example, the production and writing of minutes by automatically transcribing discussions during meetings. This allows the public employees involved to focus more on the content of the exchanges rather than on taking detailed notes. In addition, AI ensures high accuracy in transcription, reducing human errors and omissions resulting in more reliable and consistent documentation of meetings. Nonetheless, it remains crucial that the output AI produces is thoroughly reviewed by a human to ensure exactitude.

Completion of standardised processes

The completion of standardised processes is also heavily impacted by technology. These technologies offer several major advantages. First, they significantly speed up processing time. Second, they minimise human error, ensuring increased accuracy and reliability in the documents and tasks produced. Thus, this automation benefits both public employees, by facilitating and speeding up certain repetitive tasks, and citizens, by offering faster and more consistent services.

For example, RPA can be used to automatically send standardised documents. By filling in the relevant fields based on the information provided or present in databases, these technologies improve the performance of organisations, providing a better service to users.

First-level support

First-level support is greatly impacted by the appearance of chatbots and artificial intelligence. These systems are deployed to provide initial, fast, and available support to users, answering their common and basic questions. This technology relieves public officials by processing the simplest requests in an efficient and automated way, allowing them to intervene only on more complex issues.

Decision-making activities

Decision-making activities benefit considerably from the integration of new technologies in businesses. Indeed, the use of emerging technologies makes it possible to analyse large data sets, to detect trends, anomalies, or potential risks that might escape a manual analysis.

For example, Artificial Intelligence is used to carry out an initial analysis, making it possible to provide a reference framework for studies on the themes concerned. This might help public officials in charge of monitoring to decide quickly which administrative body to target. Thus, it focuses efforts where it is most needed, resulting in faster and more targeted preventive or corrective actions. This way AI provides an initial analysis that accelerates decision-making and goes to action.

Digitisation of processes and data processing

Finally, technological developments are impacting the digitisation of processes and revolutionising data processing. In an increasingly connected world, the digitalisation is a crucial step towards modernising and innovating companies. By adopting the principle of digitising services and data, organisations can automate tasks, improve operational efficiency, and enable better collaboration between teams.

This issue of digitisation is now found in all the activities of administrations. For example, Infrastructure Information Modelling (BIM) has revolutionised the design, management, and maintenance of infrastructure. In addition, the use of smartphones and tablets in delivery and receiving logistics activities improves traceability, communication, and inventory management.

B. Areas of skills development linked to digital transformation

As a result of the incorporation of these new technologies into business processes, public officials will need to be trained in new areas such as the use of new tools and the ability to process data securely. They will also be pushed to develop their non-automatable skills and increase their in-depth knowledge of their areas of expertise.

Active and efficient use of new tools

The active and efficient use of new IT tools is becoming essential to increase the efficiency of administrative processes in a constantly changing technological environment. This involves a deep understanding and ability to leverage various technologies.

Some emerging skills in the public sector may be highlighted:

- Mastering the use of prompts and chatbots to automate interactions and improve customer service;
- Using RPA programs and identifying or solving technical problems encountered to optimise repetitive processes and tasks;
- Using no-code or low-code tools such as PowerBI to create custom solutions without the need for advanced programming skills.

The ability to adopt a responsible and secure digital approach

Adopting a secure digital approach is crucial to guarantee the protection of the data of administrations and citizens. Thus, new needs have emerged within the administrations. Public employees will therefore have to be able to:

- Know how to store and share data securely to protect sensitive information;
- Guarantee the security of the data handling, for example, by knowing how to identify and react effectively to phishing attempts;
- Understand and apply GDPR regulations to ensure the protection of users' personal data.

In addition, there is an ecological challenge aimed at minimising the environmental impact of the technological solutions used. It is therefore becoming important for all public employees to implement so-called "Green IT" practices to promote the sustainable use of digital technologies.

These new skills are even more crucial with the introduction of AI systems which can be translated into ethics awareness, AI security, and data protection skills.

The development of non-automatable skills and in-depth knowledge on subjects of expertise

Although technology plays an increasingly significant role in the functions of public officials, it is crucial to emphasize that human beings and their unique skills remain central to the effective functioning of administrations. Developing skills that are considered non-automatable and deepening specialised

knowledge are essential factors for the high quality of public services. The following skills are particularly important to develop:

- Knowing how to manage projects and coordinating resources to ensure the success of complex initiatives ahead;
- Providing advanced technical support to users to solve complex and specific problems efficiently;
- Analysing and challenging data, taking into account business expertise to correctly interpret the results provided by digital tools;
- Developing behavioural and interpersonal skills such as negotiation, communication, and knowledge sharing to work effectively in a team.



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