

Empowering the Public Sector with Red Hat Open Innovation Skills and Mindset



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Introduction

The disruptive impact of innovative technologies — compounded by elevated citizen expectations and the imperatives to use taxpayer money wisely and comply with regulations — is driving public sector organisations to set ambitious targets for secure, efficient, inclusive, and citizen-centric digital services. For instance, the EU Digital Decade Policy program sets the target to have all key public services available in digital format by 2030¹.

'People expect government services to be as good as the best online experiences in the private sector.' – the UK Central Digital and Data Office's 2022 to 2025 Roadmap for Digital and Data²

Technology innovation is a strategic lever that public sector leaders in Europe and beyond can harness to meet these ambitious goals. However, the public sector path to realising the full benefits of innovation is not without challenges. IDC research shows that technical debt, a shortage of skills, and a lack of an innovation mindset across the civil services are hindering technology innovation. For example, the results of IDC's *EMEA Cloud Survey, 2024* reveal that 'a lack of culture to track the value of cloud,' 'too much legacy infrastructure and legacy code,' and 'a shortage of cloud skills' are the top 3 barriers to the realisation of the value of cloud in the government sector. And, according to IDC's *Future Enterprise Resilience Survey, Wave 4* (2024), a 'Lack of GenAI skills or expertise within the organisation' is by far the top barrier to the evaluation or expanded use of GenAI among governments, globally.

AT A GLANCE

KEY STATS

- » Over 60% of governments, globally, are investing in GenAI to transform public services.
- » Over 50% of governments in EMEA have a siloed approach to software development and delivery, preventing full value realisation from technologies like AI.

WHAT IS IMPORTANT

AI and software development skills are important, but the public sector must also address gaps in platform engineering skills, such as cloud security and intelligent automation, monitoring, and resource optimisation.

KEY TAKEAWAYS

The public sector will benefit from a holistic approach to skills development and cultural change that includes open-source development methodologies (e.g. InnerSource), platform engineering competencies, and behavioural change.

¹ https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en

² <https://www.gov.uk/government/publications/roadmap-for-digital-and-data-2022-to-2025/transforming-for-a-digital-future-2022-to-2025-roadmap-for-digital-and-data-original>

Governments are already working to address these challenges, including investing in digital skills; for example, the UK government's digital and data workforce grew by 9% between October 2022 and April 2023³. However, keeping up with demand for digital skills acquisition and retention is difficult. Public sector leaders that want to increase the pace of innovation, streamline development processes, and use resources more efficiently would benefit from a holistic approach to nurturing competencies and mindsets that help attract, retain, and continuously develop strategic digital skills.

This IDC spotlight describes a three-pronged action plan for skills development and cultural change to help public sector organisations realise the value of technological innovation at scale.

Trends and Rapidly Evolving Technology Innovation Requirements in the Public Sector

Technologies such as AI, including GenAI, are impacting every aspect of government – missions, use cases, processes, and systems. In IDC's *Worldwide Future Enterprise Resilience Survey, Wave 6*, conducted in June 2026, 34% of government respondents reported that their agencies were investing significantly in GenAI, with plans to launch applications and services in the next 12 months, and an additional 32% reported that their agencies were in the initial testing/proof of concept phase.

The acquisition and implementation of new cloud-native AI platforms and technologies will only be the first step. Public sector leaders that want to realise the value of technology innovation at scale will benefit from developing the culture and competencies that can accelerate acquiring and deploying hybrid cloud platforms.

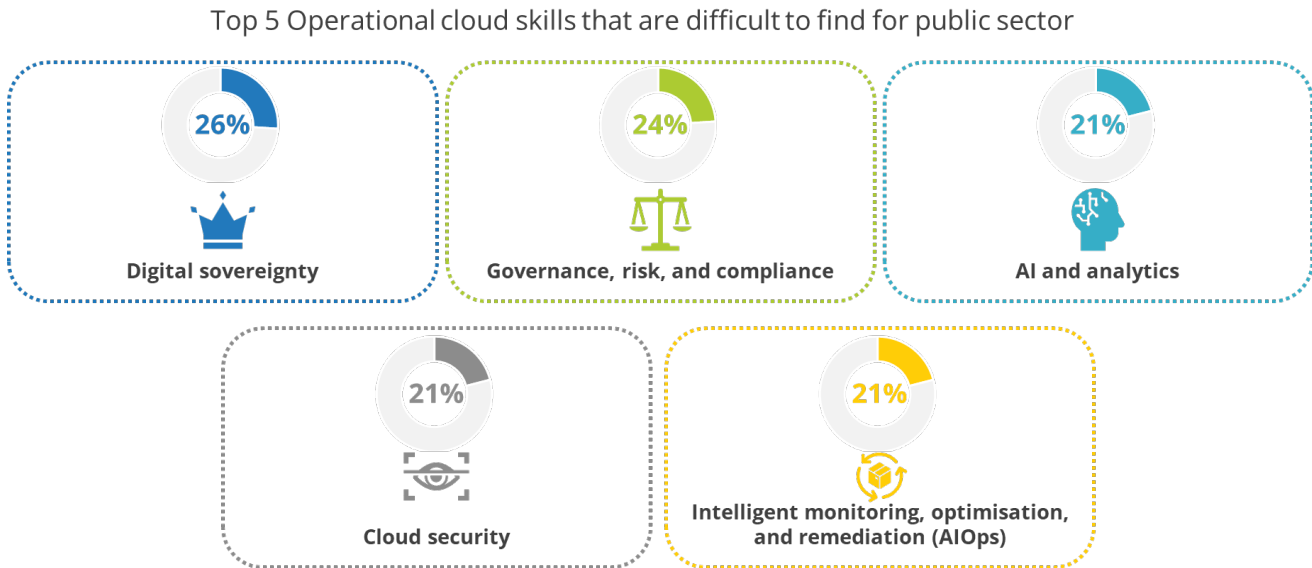
European governments are already investing in skills that can advance technology innovation. For example, the UK government's digital and data workforce grew by 9% between October 2022 and April 2023⁴, and the Romanian government aims to train 30,000 civil servants in advanced digital skills and 2,500 civil servants in leadership and talent management skills in the context of technology innovation⁵; however, keeping up with demand for talent is difficult, particularly for professions related to emerging technologies like AI and to cloud operations and engineering skills, such as cloud sovereignty, governance, and security (see figure 1), which are critical in acquiring and implementing hybrid cloud platforms to accelerate legacy modernisation.

³ <https://www.gov.uk/government/news/digital-skills-rebrand-to-attract-top-tech-talent-to-civil-service>

⁴ <https://www.gov.uk/government/news/digital-skills-rebrand-to-attract-top-tech-talent-to-civil-service>

⁵ https://commission.europa.eu/projects/advanced-digital-skills-training-programme-civil-servants_en

Figure 1. Top 5 Operational Cloud Skills EMEA Governments Lack and/or Find Difficult to Hire



Source: IDC's *Cloud Survey, 2024*, Europe (n = 58)

Public sector organisations struggle to attract and retain talent. The imperative to steward taxes wisely prevents them from competing with private sector salaries⁶ – a difficult situation, particularly given the shortening half-life of skills and the need to adapt to workers' changing expectations.

- The half-life of skills – the time it takes skills to lose half of their value or relevance to an organisation or employee's job – is rapidly decreasing⁷, meaning that the skills an organisation values today may become obsolete in as little as five years' time.
- New and upcoming talents have different expectations about work. They want more control over their life-work balance through flexible working models. They want to make a difference through trusted, collaborative, and open decision-making⁸.

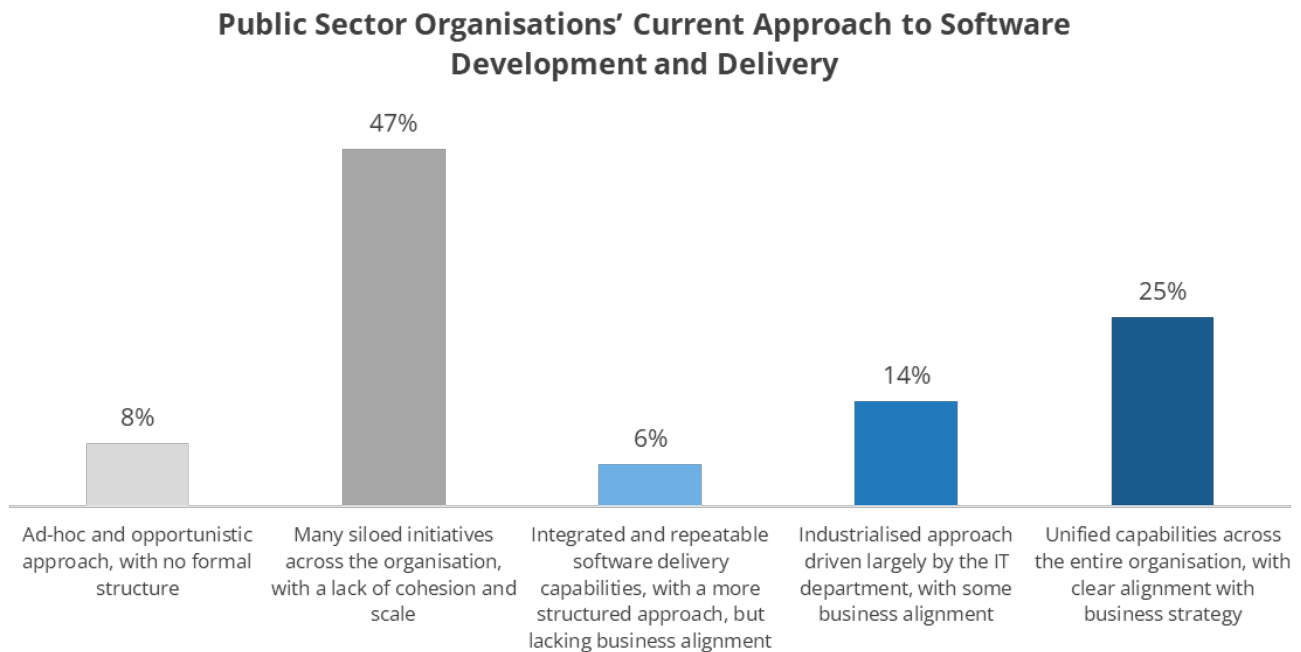
As hybrid multicloud environments become embedded in governments' strategies to modernise their infrastructures, transform their applications, and take advantage of innovations such as AI (including generative AI), public sector organisations will benefit from multifaceted methods to developing competencies and advancing overall organisation maturity. Such an approach will help them redeploy talent from legacy technology to modern tools and will help move the organisation from siloed initiatives and a mentality that is open to collaboration and optimised processes, empowering them to deliver against strategic targets (Figure 2).

⁶ <https://www.bbc.com/news/55089900>

⁷ <https://www.weforum.org/stories/2024/01/this-is-the-one-skill-everybody-needs-in-the-age-of-ai/>

⁸ <https://news.stanford.edu/stories/2024/02/8-things-expect-gen-z-coworker>

Figure 2. Public Sector Current Approach to Software Development and Delivery



Source: IDC's *Application Development and Delivery Survey, 2024* (n = 36)

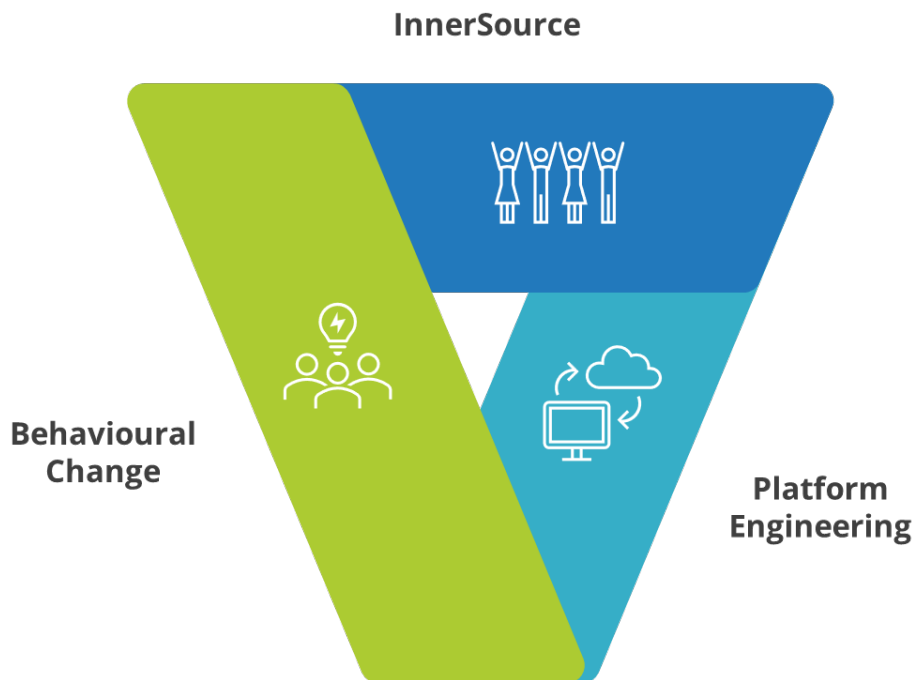
An Action Plan for Nurturing Skills and Transforming Mindsets in the Public Sector

Public sector organisations will benefit from a multifaceted approach that can foster a culture of continuous learning – one capable of adapting to ever-evolving demands for system development and modernisation in the AI-everywhere age. The public sector has three feasible means of nurturing skills and an innovation mindset:

- Encouraging InnerSource practices
- Investing in platform engineering
- Promoting behavioural change

These strategies are designed to foster a culture of continuous learning and collaboration, ensuring that public sector organisations can mature their approaches to software development and deployment to meet evolving technology demands.

Figure 3. A Three-Pronged Action Plan for Public Sector Skills Development



Source: IDC

InnerSource Practices

Many public sector entities are stuck with proprietary software stacks that lock them into technical debt, which negatively impacts their operational resilience and ability to adapt to regulatory and policy changes, increases cyber-risk, and ties skills to obsolete technologies. By adopting open-source tools, discipline, and principles, public sector organisations can empower collaboration and knowledge sharing across departments.

This approach will help break down silos, enabling teams to work together more organically. Through coaching and mentoring across the wider open-source community and secondments from the private sector and academia, organizations will create safe places to experiment, learn, and solve problems. The result will be a more agile and innovative workforce that can tackle complex challenges, efficiently reuse tools and capabilities, and rapidly identify and remediate cyber-vulnerabilities and compliance risks. Members of open-source communities will also feel a stronger appeal to stay in their roles because of a sense of belonging and contribution.

Platform Engineering

Too often, software development and data science skills are considered the most critical. More mature public sector organisations are prioritising investments in platform engineering competencies and capacity, including:

- Software bills of materials (SBOMs)
- Secure supply chain software,
- The automation of continuous integration (CI) and continuous delivery (CD) pipeline workflows

- Site reliability engineering (SRE) to automate IT infrastructure tasks and documentation
- The reusability of architectural artifacts
- FinOps and GreenOps
- Continuous governance, compliance, and observability

These platform engineering competencies will help public sector organisations optimise operational efficiency; increase their ability to integrate new technologies seamlessly; maximise technology return on investment through the reuse and sharing of code, data, and applications; and ensure the implementation of quality assurance, testing, and security best practices.

Behavioural Change

Acquiring, developing, and recognising top talent within an organisation requires thinking holistically about career development paths. Individual contributors who wish to remain in technical roles should have the opportunity to gain influence and responsibility – for instance, by occupying 'distinguished engineer' roles. Technical experts could benefit from virtual and onsite training and coaching to develop their behavioural competencies, which would help build a strong engineering culture that values innovation, collaboration, and continuous improvement.

Non-technical experts may benefit from digital and AI awareness training and active participation in technology projects to better understand the potential of emerging technologies and to use them more responsibly. Technical and non-technical experts should understand how their roles can advance the agency's mission and increase public trust and engagement.

Benefits

Implementing a three-pronged approach to the development of public sector competencies – InnerSource, platform engineering, and behavioural change – will deliver direct and indirect benefits for organisations that want to increase the pace of innovation, streamline development processes, and use resources more efficiently while complying with regulations.

The direct impact will materialise as:

- **Increased talent attraction:** More candidates will consider applying for public sector roles, as they will consider such posts opportunities to work in a collaborative, agile, and innovative environment that can make a positive impact on society.
- **Enhanced talent retention:** Civil servants will feel a stronger sense of belonging and empowerment because of new opportunities to develop their skills, recognition for their achievements, and a clearer path to experiment and learn.
- **Improved culture of innovation:** The organisation will benefit from more transparent and open collaboration, a sense of shared ownership and accountability, versatile resources, and a problem-solving mindset.

Public sector organisations that attract and retain talent and encourage an open innovation mindset will, in turn, be able to accelerate the time to value of hybrid cloud platforms through:

- **Improved quality and speed:** The ability to use automation tools integrated into cloud platforms will make it easier to develop, test, document, and distribute code and ensure

high-quality data pipelines. It will help organisations configure, provision, and reconfigure infrastructure for faster development and deployment cycles while reducing ad-hoc interventions, which can result in mistakes and repeated work.

- **Increased agility:** Using modular platforms will help organisations tap into interoperable components and understand the underlying source code, which will enable them to gain the most value out of vendors and avoid lock-in.
- **Enhanced security:** The combination of DevSecOps tools and practices will help organisations run security vulnerability and compliance risk assessments throughout the software development and delivery life cycle and across datasets, thus enabling rapid and targeted remediation.
- **More resilient IT operations:** Enhanced quality and security will also help organisations understand and minimise the impacts of downtime by planning and scheduling resilient cloud resources for critical activities, such as database migrations.
- **Resource efficiency:** The transition to cloud-native platforms can help with cost reduction if approached as an opportunity to rearchitect systems and eliminate the components used in legacy on-premises environments, which can be replaced with reusable code and artifacts. Advanced cloud engineering skills are a prerequisite for implementing FinOps and GreenOps best practices and tools (to ensure optimised capacity planning and consumption). The resources freed up can be redeployed to nurture a virtuous cycle of innovation.

Higher levels of quality, speed, agility, security, operational resilience, and efficiency are not only end goals; they are also pillars that empower public sector organisations to embark on a journey to continuous improvement that will help deliver on the digital decade's goal of citizen-centric digital public services.

Public sector leaders will not be able to complete this transformation alone. They can benefit from collaborating with players from across the technology ecosystem, from emerging GovTech⁹ vendors to global companies.

⁹ https://www.oecd.org/en/publications/enabling-digital-innovation-in-government_a51eb9b2-en.html

Vendor Profile

Public sector leaders can benefit from collaborating with technology partners like Red Hat that invest in hybrid cloud platforms with embedded tools for secure software supply chain, workflow automation, and infrastructure-as-a-code provisioning and in services and expertise to develop skills and embrace a culture of innovation, including:

- **Translating its expertise in open-source community building into the world of InnerSource:** By leveraging the same principles that drive open-source communities, Red Hat aims to empower organisations to create dynamic internal ecosystems in which teams collaborate openly, contribute meaningfully, and drive innovation collectively.
- **Embodying an open organisation ethos that fosters transparency, collaboration, and inclusivity:** Red Hat's commitment to open-source principles and a service-led approach aims to help public sector organisations embrace shared purpose, meritocracy, and open communication.
- **Ensuring continuous support through Red Hat's Open Source Program Office (OSPO):** OSOP serves as a centre of excellence to provide guidance, best practices, and strategic insights, help implement a holistic approach to platform engineering skills development and cultural change, and guide related investment priorities.

Red Hat Customer Story

CUSTOMER BACKGROUND

Since 2023, a large government institution and Red Hat have been collaborating to design, build, and operate Red Hat OpenShift with a platform-as-a-service mindset.

RED HAT ENGAGEMENT

Red Hat Services' framework helped the government entity develop skills and realise the benefits of a containerised architecture.

In a skills development workstream, Red Hat helped the government department team become more proficient in using Red Hat's open-source technologies.

In a container adoption workstream, Red Hat supported the customer through agile design, development, and deployment phases:

- The Navigate phase helped the customer assess the existing architecture and operating models, define future requirements, and identify challenges that may arise along the adoption journey.
- The Architectural Review of the agency's current use of OpenShift enabled the customer to move from theory to practice by initiating the development of a common shared platform (CSP) – OpenShift foundational architecture – and hosting the first meaningful application as a pilot. This phase included:
 - Co-engineering a minimal viable platform (MVP) and mentoring the government agency's core team to build and deliver applications on that MVP with limited to no assistance by an agreed target date
 - Initiating the expansion of reflective capacity of the CSP MVP and leveraging external environments, such as public cloud

WAY FORWARD

Three steps have been identified as key to realising full benefits at scale:

- **Expand and operate the CSP:** The expansion of the Red Hat Services Journey: Container Adoption aims to enable operation, application, and release teams to onboard their applications on the MVP via a repeatable self-service model. Additional assistance areas include scaling, securing, and expanding features of the MVP in a continuous manner – the platform-as-a-service way.
- **Run a cloud services pilot:** This workstream will empower the government agency to accelerate the time to value of software development and delivery on Red Hat OpenShift Cloud Services.
- **Implement comprehensive cybersecurity posture management:** The Red Hat team will assist in embedding cybersecurity tools and practices in the OpenShift environment to put in place integrated DevSecOps software life-cycle management.

Challenges

Public sector organisations that collaborate with technology partners like Red Hat to accelerate organisational development built around InnerSource, platform engineering, and behavioural change should consider the following challenges:

- Cultivating open collaboration, transparency, and the reuse and sharing of architectural components can be difficult in organisations that are guided by a competitive ethos; for example, internal competition can result in public sector entities trying to attract talent from other government programs, agencies, and departments, instead of encouraging the sharing of expertise, data, and code across siloes. Public sector organisations need to define and track key behavioural indicators, such as collaboration indices and code contributions, to augment traditional KPIs.
- Encouraging employee experimentation and accountability can be misunderstood when hierarchical structures favour the recognition of job titles and the control of risks, rather than merit and problem-solving attitudes. Talented technical individuals that do not find a path to recognition and new work models may shy away from participation and contribution. Alternative career paths must be put in place to ensure reward and recognition for those that prefer flexible working hours, team collaboration, experimentation, and individual contribution over managerial responsibilities.
- Executive sponsorship and adequate resources should be in place to support communication and training, including aligning messages for different stakeholder groups.

Conclusion

IDC believes that public sector leaders who want to increase the pace of innovation, streamline development processes, and use resources more efficiently may benefit from collaborating with technology partners like Red Hat to implement a three-pronged approach to competencies development – InnerSource, platform engineering, and behavioural change – to help attract and retain talent and embrace an open innovation culture.

To maximise the value of these collaborations, public sector organisations need to assess the level of readiness of their structures and processes and have executive leaders commit to opening new career pathways, adopting new metrics, communicating openly, and recognising the value of problem solving through experimentation.

Public sector organisations that can embrace this new ethos will be better positioned to increase the quality of development and delivery, enhance security, and improve operational resilience and agility to respond to regulatory changes at lower cost.

Message from the Sponsor

Red Hat's open, transparent culture empowers individuals to innovate, collaborate, and drive meaningful change. This approach extends to our partnerships, enabling customers to build sustainable relationships and foster mutual growth across their ecosystems.

In the public sector, skills gaps often act as a 'skills debt,' hindering digital transformation and limiting the ability to achieve key outcomes. Fiscal constraints make hiring difficult, but addressing this debt through skills development and people investment can unlock significant long-term value. Red Hat focuses on nurturing talent, creating environments for knowledge sharing, and building collaborative, scalable solutions that align with government security and governance standards.

Paying down the skills debt not only accelerates technology adoption but also creates a foundation for innovation, resilience, and sustainable impact. Partner with Red Hat to develop the skills needed to meet your digital goals and deliver on your mission.

About the Analysts

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Massimiliano (Max) Claps is the research director for Worldwide National Government Platforms and Technologies research in IDC's Government Insights practice. Max Claps has over 20 years of public sector experience. In his role, Max provides research and advisory services to technology suppliers and national civilian government senior leaders in the US and globally. Specific areas of research include improving government digital experiences, data and data sharing, AI and automation, cloud-enabled system modernisation, the future of government work, and data protection and digital sovereignty to drive social, economic, and environmental outcomes for agencies and the public.

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