Digital Transformation Should Be at the Heart of the UK's Economic Agenda

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The UK economy has experienced sluggish growth for years, but the country has a unique opportunity to use recent advances in AI to reinvent itself as an economic powerhouse driven by digital innovation and detached from EU dependencies. To seize this opportunity, the UK should adopt bold, forward-thinking policies around digital transformation and artificial intelligence (AI) that will allow the UK to drive economic growth.

The following recommendations outline a path forward. The new government should:

1. take a light-touch approach to AI regulation;

2. unlock data;

3. address the digital skills gap by aligning training and education with industry needs;

4. use government funding to support research and development (R&D) commercialisation; and

5. support the digital transformation of the public sector.

RECOMMENDATION 1: TAKE A LIGHT-TOUCH APPROACH TO AI REGULATION

The previous government landed on a set of pro-innovation, cross-sectoral AI governance principles to balance safety and innovation. The current government should continue down this path to unlock new economic

opportunities, create highly skilled jobs, and attract greater investment—fuelling future domestic innovation.[1]

The UK AI market is currently valued at over $21 billion—the third largest AI market in the world after the United States' and China's.[2] A supportive approach to AI development would allow the UK to bypass the burdensome regulations of the EU AI Act, which has already caused major players such as Meta and Apple to hold off on launching AI products in Europe.[3] The UK government should learn from these mistakes and seize the opportunity to create a more competitive regulatory landscape.

The UK government should first explore non-regulatory options for managing risks it wishes to address.[4] Regulations for specific technologies can quickly become outdated, especially since AI models are rapidly evolving and researchers do not yet fully understand the best ways to mitigate risks from the technology.[5] Instead, the government should encourage regulators to rely on existing technology-neutral legislation, such as the Equality Act 2010, to address some of the issues within their sectors. Once regulators have a clearer understanding of AI's capabilities and risks, they should apply sector-specific measures to tackle real, immediate harms, such as nonconsensual deepfake pornography, rather than hypothetical concerns such as AI becoming self-aware. The government should also not single out special rules for the handful of companies developing the most capable AI models, as such an approach could hinder the adoption of these technologies in the UK and stifle innovation.

The UK government's Artificial Intelligence Safety Institute (AISI) can provide nonregulatory solutions to the potential risks from AI. For example, AISI has already tested five leading AI models used by the public to assess their potential risks.[6] To ensure AISI operates free of political interference, the government should make it an independent agency, rather than a part of the Department for Science, Innovation, and Technology. And to ensure that it has the resources to continue to pursue pragmatic measures to improve AI safety, the government should provide it with sufficient funding. These changes would also encourage better collaboration with the industry by reassuring companies that AISI's core mission is fixed.

The UK has a unique opportunity to lead the world in AI governance by maintaining a balanced approach that promotes innovation while safeguarding against emerging risks. By continuing to apply high-level principles, leveraging existing technology-neutral legislation, and strengthening institutions such as AISI, the UK can foster a thriving AI ecosystem that drives economic growth and positions the country as a global leader in AI safety.

RECOMMENDATION 2: UNLOCK DATA

The availability of data is crucial for driving innovation, especially in AI, yet much of this potential remains untapped. Data-driven innovation is not happening quickly enough, in large part due to the culture created by introduction of the General Data Protection Regulation (GDPR). GDPR has left the UK with a disincentive for data-driven services, leading to limited data sharing across government and industry. Data reform starts with addressing the root cause: badly designed data protection regulations.

The COVID-19 pandemic should have been the opportunity to build on political impetus to make data sharing the norm. The pandemic spurred urgent data sharing that garnered valuable insights for public health officials.[7] The post-pandemic era has instead seen untapped gains. Indeed, according to the Office for Statistics Regulation (OSR), innovation brought on by data sharing is neither widespread, nor the norm.[8] In fact, according to OSR's 2024 report on data sharing for the public good, it found that linking datasets for research, statistics, and evaluation is not yet the norm in the UK statistical system, and that stronger commitments to prioritise data sharing are needed from senior UK politicians and civil servants.[9]

The previous government attempted to take advantage of the wealth of government data it held. In September 2020, the UK government published the National Data Strategy (NDS), an ambitious five-mission initiative that aimed to "drive the collective vision that will support the UK to build a world-leading data economy."[10] However, it ultimately failed to make this a reality, not going far enough to encourage widespread data sharing, losing focus with its missions, and lacking a central figurehead to push forward NDS priorities across government.

To make the UK the world leading, data-driven economy in the next five years requires bold, decisive action to accelerate data-driven innovation. The UK government needs a new data strategy that addresses the failures of the last government. This means enabling the public and private sector to use available data by:

- reforming the UK GDPR;

- investing in privacy-enhancing technologies (PETs);

- establishing data trusts;

- establishing data-sharing partnerships; and

- providing data literacy training to civil servants.

The UK GDPR, a legacy of its membership in the EU, hamstrings UK data innovation, by making it difficult for organizations to access and use significant amounts of quality data. The GDPR's core purpose is to limit

personal data use. Unfortunately, the last government failed to introduce legislation to fix the GDPR. This type of reform is desperately needed to foster a data-driven economy. Indeed, a recent Organisation for Economic Cooperation and Development (OECD) working paper highlights that UK data-intensive firms are on average more productive, generate more revenues, and trade more in foreign markets than do non-data-intensive UK firms.[11] Specifically, the average number of employees for data-intensive firms is around 1,500, compared with only 700 for non-data-intensive firms. Data-intensive firms also have around six times more capital assets and generate seven times higher revenue and higher gross output.[12] This makes a clear case for unlocking data for more businesses, and **the UK government should reform UK GDPR to reduce data access barriers**.

The Labour government has introduced a new Data (Use and Access) Bill (DUA Bill), which, according to the government, will "unlock the secure and effective use of data for the public interest".[13] The DUA Bill is a welcome start on the road to GDPR reform, but the government needs to do more to unlock data sharing for both the public and private sectors. Private sector data innovation is as much in the public interest as public sector data innovation is.

The DUA Bill retains many of the positive provisions contained in the previous government's Data Protection and Digital Information (DPDI) Bill.[14] This includes necessary provisions towards the establishment of digital verification services, the development of a national underground asset register, smart data schemes, and data access to support scientific research. Whilst these initiatives may positively contribute to a data economy, they do not address the widespread data access and processing issues faced by businesses UK-wide.

In particular, the old DPDI Bill introduced a new definition of identifiability that moved the concept of identifiability to a more subjective interpretation, raising the threshold for what could be considered personal data. This would mean less data falls within the scope of the UK Data Protection Act 2018 (DPA) and would therefore be subject to fewer compliance rules.[15] The "reasonable means" test allowed for easier data sharing whilst still maintaining data protection standards because it considered the time, effort, and abilities of a data controller to reidentify an individual; just because data could hypothetically become identifiable does not necessarily mean it is personal data if reidentification is unreasonable from the viewpoint of the data controller. This small but significant change would have alleviated data protection compliance substantially because it would have reflected the practical aspects of data processing that would move data outside the purview of the DPA. This necessary change is missing from the current DUA Bill, meaning a large proportion of data remains subject to stringent, EU-instigated data-sharing rules that will continue to plague UK data innovation.

Moreover, the DUA Bill excludes key provisions from the DPDI Bill that would have introduced government oversight of the Information Commissioner Office's (ICO's) strategic priorities, marking a missed opportunity for the new government to support the alignment of a key UK regulator to the overall missions of government. Indeed, such a provision, which would have also allowed the government to issue recommendations to the ICO, would have supported the future introduction of a Regulatory Innovation Office—an office to drive economic growth through regulatory reform that enables innovation.[16] The UK government needs to do much more to inject quality data into the public and private sectors, and it should start by carrying forward the abovementioned provisions from the DPDI Bill into the DUA Bill.

To complement a supportive data framework, **the UK should invest in research on PETs that safeguard data while stored, processed, and transmitted.**[17] For example, fully homomorphic encryption is a way of performing computations on encrypted data without having to first decrypt it. Coupled with supportive data-sharing policies, PETs would provide technical solutions to protect data privacy whilst fostering data-driven innovation.

In the UK, there exists OpenMined, an open-source organisation whose mission is to lower the barrier to entry to privacy-preserving technology. [18] OpenMined's work includes supporting access to medical data. One use case highlights the possibility of using a Python package to study heart disease that allows developers to work with the data but without exposing the private data, and running the code that uses the data on the server where the data is stored, reducing the risk of data leaks.[19] The UK should invest in initiatives such as OpenMined, awarding grants to specific research institutions and businesses working on the development of PETs that would complement a reformed data protection framework to accelerate secure data sharing.

The UK government should also establish data trusts and data-sharing partnerships to foster global data sharing. Data trusts are a type of data governance framework that manage, protect, and share data for an agreed-upon purpose on behalf of individuals and organisations. For example, a public sector data trust could foster secure and efficient transfer of public data to private institutions to drive public sector innovation. The UK should prioritise data sharing for specific purposes, such as drug discovery, where there is a clear benefit from more data sharing, and could support an industry in which the UK could be a world leader. For example, Sweden and the United States have entered into a bilateral cooperation agreement to encourage science and technology exchange dedicated to cancer research.[20] The UK should establish similar data-sharing partnerships.

The UK should consider these mechanisms as part of its efforts to implement Data Free Flow with Trust (DFFT), a pro-data-sharing vision led

by the OECD that aims to promote the free flow of data whilst ensuring trust in privacy, security, and intellectual property.[21] DFFT serves the dual purpose of promoting data for economic and social purposes whilst also supporting data privacy. In setting up public sector data trusts that operationalise DFFT, the new government can leverage the benefits that increased data access brings, particularly to public services such as the National Health Service (NHS). Public sector data trusts can also form the building blocks for AI-powered public services, and would support the delivery of Labour's manifesto missions, including kick-starting economic growth, and building an NHS fit for the future.[22]

A similar initiative in Estonia—X-road and its X-tee instance—acts as the backbone of Estonia's digital infrastructure, facilitating data transfers between the public and private sectors.[23] Whilst it does not provide the data itself, it does support secure, interoperable data exchanges, something the UK currently does not offer.[24] Public sector data trusts could form the basis of a similar data-sharing infrastructure, supporting data-driven innovation for the benefit of public services across the entire development pipeline.

Finally, to unlock the full potential of public data, the UK government should **introduce civil servant data literacy programmes that upskill civil servants on how** to use data in a GDPR-compliant way. The use of data and AI has the potential to drastically cut down time spent on central government transactions, yet civil servants remain reluctant to use data because of fears around GDPR compliance.[25] More than this, data-illiterate civil servants fail to leverage the full benefits of government-adopted open data policies, rendering said policies redundant.[26] To rectify this, the government should offer data literacy programmes for civil servants and work with the ICO to issue specific guidelines that clearly define when public agencies can share data without the need for extensive legal interpretation. The government should also direct key organisations and agencies to provide pre-cleaned and vetted datasets for civil servants to use, which would reassure civil servants about GDPR compliance and provide the immediate data access needed to start introducing data-driven solutions within government.

RECOMMENDATION 3: ADDRESS THE DIGITAL SKILLS GAP BY ALIGNING TRAINING AND EDUCATION WITH INDUSTRY NEEDS

Digitalisation has significantly transformed the skills required in the workplace. Over 80 percent of all jobs advertised in the UK now require digital skills, yet employers report that the lack of available talent is the single biggest factor holding back growth.[27] Both foundational and advanced digital skills, which demand specialised knowledge, are essential for businesses across sectors. Estimates suggest that this digital skills gap costs the UK economy as much as £63 billion a year in lost gross domestic product (GDP). If left unaddressed, this figure could rise to £120 billion by

2030.[28] To support economic growth, the government should act at a broad level, such as understanding employers' needs and reforming the national curriculum, while also targeting specific areas for improvement such as T Levels, Skills Bootcamps, and apprenticeships.

On a broad scale, **the government should comprehensively map the digital skills demand and supply landscape.** Despite a surge in students taking up STEM (science, technology, engineering, and maths) subjects since 2011, there is still a glaring disconnect between what universities teach and what employers actually need.[29] For example, computer science graduates were among the hardest hit by unemployment in the 2017–2018 academic year.[30] This disconnect is a clear signal that the government should get a firm grip on the digital skills supply and demand landscape if it wants to prepare the workforce for the future.

The proposed Skills England initiative, set to craft a national strategy to boost the UK's skill base, is a move in the right direction—but it will not be fully operational until next year.[31] In the meantime, the government should instruct the Department for Education (DfE) to begin consultations with industry stakeholders to identify critical skills gaps and create practical plans to address them. However, this attempt cannot be a one-off effort. DfE should also establish a robust system for the regular review and updating of skills initiatives based on continuous feedback from employers, educators, and employees.

As part of this broad approach, reforming the national curriculum is crucial to equip students with the skills the digital economy demands. In an increasingly data-driven world, a strong understanding of data, particularly through statistics, is essential for individuals to navigate both their personal and professional lives. Currently, statistics are taught in schools across the UK, primarily as part of the mathematics curriculum. The UK should introduce a separate mandatory, standalone General Certificate of Secondary Education and A-level in statistics and data science, distinct from the general mathematics curriculum. Moreover, the government should provide funding for targeted professional development programmes to train teachers specifically in statistics and data science, ensuring that they have both the subject knowledge and pedagogical skills to teach these subjects effectively. The government should also integrate statistics across various subjects, such as science, geography, and economics, by introducing curriculum reforms that clearly incorporate statistical concepts into each discipline.

In specific areas, **the new government should review and enhance existing initiatives to ensure that they correspond to industry needs and adequately prepare individuals for the workforce.** According to the Skills Policy Audit Database, the government has not fully implemented the recommendations from various reviews on skills development.[32]

Key programmes and initiatives that require review and enhancement include the following:

- **T Levels:** T Levels are two-year courses for 16 to 19 year-olds, which offer a mixture of classroom learning and "on-the-job" experience, preparing students for skilled employment, further study, or a higher apprenticeship.[33] Ofsted conducted a review on T Levels and found that, at their worst, T Levels are not what students expected, pointing to issues around teaching, staff recruitment and retention, and industry placements.[34] DfE should better align students' expectations with the course material, enhance the quality of teaching, and foster stronger industry partnerships.

- **Skills Bootcamps:** These bootcamps are intensive, short-term training programmes for people ages 19 and older with a guarantee of getting an interview after completion.[35] DfE's report on Skills Bootcamps finds that some respondents indicated insufficient time to learn necessary skills, especially in courses such as coding, cybersecurity, and software development.[36] The government should enhance the curriculum to ensure adequate skills and knowledge acquisition. It should also review and disclose how many students are able to get an interview and a job offer after completion.

- **Apprenticeships:** Apprenticeships are practical, work-based training programmes that combine working and learning.[37] The government has conducted various reviews but has missed implementing all the recommendations in the context of improving apprenticeships.[38] It should now revisit those overlooked recommendations and identify the issues that need attention.

Closing the digital skills gap is crucial for the UK's future growth. Without action, businesses will continue to face talent shortages, costing the economy billions in lost potential. The government should ensure that it understands the needs of the industry and that the education system equips the next generation with the skills needed for the digital economy. At the same time, it should review and enhance existing initiatives to prepare today's workforce for the rapidly changing world of work. Without these efforts, the UK risks falling behind in the race for innovation and economic leadership.

RECOMMENDATION 4: USE GOVERNMENT FUNDING TO SUPPORT R&D COMMERCIALISATION

The UK has world-leading research institutions that work at the forefront of technological innovation. According to the Global Innovation Index's 2023 report, the UK ranked 4th out of 132 measured economies across its innovation capabilities, demonstrating its strengths in R&D, scientific output, and market sophistication.[39] But in productivity, the UK ranked 18 percent lower than the United States, and areas displaying clear gains in R&D—Birmingham, Manchester and Glasgow—not only showed large productivity gaps relative to London but also had productivity levels well below those of peer cities in Europe.[40] Moreover, the UK is world-leading with the amount of R&D expenditure on higher education as a percentage of GDP, yet there is a distinct lack of robust technology transfer systems and pathways to commercialisation.[41]

The UK can do much more to improve the effectiveness of commercialising the UK's digital innovation output in order to realise technology-driven productivity gains. Indeed, the UK falls below the G7 average for scale-ups and value added, which respectively refer to the point at which innovation finds a practical technological application and the stage at which innovation adds value to the economy.[42] Moreover, spinouts from UK research institutions, which represent clear pathways from R&D to commercialisation, are few and far between, concentrated heavily in the Greater South East region, which includes the Golden Triangle of London, Oxford, and Cambridge.

Where spinouts do exist, the benefits are obvious. The Oxford Science Enterprises (OSE) is one such example of the success of spinouts that leverage the power of industry-academia partnerships. OSE is an independent billion-pound investment company that partners with Oxford University to fuel innovation and support spinout companies that apply innovation.[43] Founded in 2015, OSE has raised over £850 million, resulting in a portfolio worth over £2 billion, and two initial public offerings on NASDAQ. Cambridge Innovation Capital (CIC) is a leading Series A investor in the Cambridge ecosystem, which includes quantum start-up Riverlane.[44] Riverlane is building technology to make quantum computers less error prone and recently raised $75 million in Series C funding to continue its work making quantum computing commercially viable.[45] And the UCL Technology Fund was specifically set up to invest in commercialisation opportunities, leading to 4 NASDAQ IPOs, 19 licensing projects, and 34 proofs of concept.[46] These examples show the power of such partnerships to unlock the dual benefits of supporting innovation efforts and creating clear pathways to commercialise cutting-edge R&D, laying the groundwork for much needed technology-induced productivity gains.

Yet, even these benefits are limited. For comparison, according to a 2019 study conducted by Octopus Ventures, academic entrepreneurialism within the Massachusetts Institute of Technology (MIT) in the United States has been the genesis for more than 26,000 companies, which in turn has created 3.3 million jobs with a combined annual turnover of $2 trillion.[47] That represents 65 percent of UK annual GDP from just one university.

If the UK government wishes to power its digital economy with world-leading UK R&D, it should support the scaling of initiatives such as OSE, CIC, and the UCL Technology Fund, and push for the development of similar initiatives beyond the Greater South East region. The new government could do this by addressing funding and training issues that, if properly addressed, would foster the right conditions for commercialisation.

First, the UK innovation system needs reform to incentivise more collaborative R&D (i.e., incentivising the private sector to invest more into the building blocks of innovation). **The UK government should reevaluate the UK's current R&D tax credit scheme to support more businesses investing in UK R&D, speeding up the approvals process and introducing more clarity for businesses.** This should be coupled with more resources for HM Revenue & Customs (HMRC) to appropriately tackle the error and fraud rate of the system, whilst offering clear pathways for legitimate claims.

It is clear that the current system has an urgent need for HMRC to address the error and fraud rate for R&D tax credits, which was at 17.6 percent overall for the 2021–2022 tax year, and 25.8 percent within the small and medium-sized business (SME) scheme.[48] HMRC should be careful not to approach the issue of fraud by discouraging or preventing legitimate claims from coming through. Total R&D tax relief claimed by businesses during the tax year 2022–2023 was £7.5 billion, which corresponded to £46.7bilion in R&D expenditure overall. This shows the power of collaborative R&D to inject much needed cash into research.[49] Yet, according to businesses, HMRC is failing to award legitimate R&D tax credits, particularly for start-ups and small businesses.[50] This is causing a real-term loss of innovation, with businesses deciding to move overseas for friendlier and more predictable tax-credit regimes. Reform is needed to speed up the approvals process and introduce clarity for businesses, which would in turn encourage businesses to establish themselves in the UK and contribute to UK R&D.

Second, **the government should reassess the criteria it holds for university funding and introduce funding tied to the performance of a university across certain benchmarks.** This would incentivise universities to reprioritise R&D in line with commercial viability, particularly if benchmarks

include the employability of STEM students after graduation as an indicator of a highly skilled graduate workforce, the percentage contribution universities make to UK scale-ups and value-added, the proportion of spinouts that develop directly from a university's R&D efforts, and a demonstration that current university R&D is aligned to UK industrial strategy. Universities that perform better across these benchmarks should receive more government support than those that do worse across the same benchmarks. Funding, however, should continue for R&D into long-term, deep-tech capabilities that demonstrate real capacity to boost UK innovation and competitiveness.

To address training issues, and specifically, a knowledge gap in entrepreneurialism amongst researchers, the UK government should offer support to research institutions, taking inspiration from the National Science Foundation's (NSF's) Innovation Corps (I-Corps) based in the United States.[51]

NSF's I-Corps is a programme designed to improve the effectiveness of scientists and engineers to commercialise innovation. It facilitates the "transformation of invention to impact" by offering a seven-week training programme to researchers to prepare them to look beyond university lab work towards commercialisation. Moreover, several I-Corps hubs have been set up across the United States to support commercialisation from a whole host of colleges and universities. Each hub is made up of a regional alliance of at least eight research institutions and can receive up to $3 million per year for five years, the purpose of which is to help researchers learn to investigate the commercial potential of science and engineering R&D. The programme is working. More than half of the teams that have participated in I-Corps since 2012 have launched start-ups which have cumulatively raised $3.16 billion in subsequent funding.[52] Similarly, more than 5,800 researchers have undergone the programme, contributing to an entrepreneurial workforce.

This UK government should replicate the NSF I-Corps model to set up hubs that form regional alliances with research institutions to support researchers take promising science and technology R&D beyond university labs into the commercial sphere. Doing so would directly target the current ineffectiveness of UK R&D commercialisation, proactively spread efforts beyond the Greater South East region, and contribute to a more entrepreneurial workforce capable of bringing cutting-edge technology to market from which the UK can benefit.

The UK sits on a broad spectrum of world-leading technology R&D, but the benefits of this kind of innovation are not translating into productivity gains that boost the UK economy. By focussing on the commercialisation of this research, the new government increases the chances of technology

diffusion and builds on its world-leading research capabilities to produce world-leading businesses that contribute to much needed UK economic growth.

RECOMMENDATION 5: SUPPORT THE DIGITAL TRANSFORMATION OF THE PUBLIC SECTOR

The UK has historically led in driving digital transformation across government. Unfortunately, it is now falling behind in key areas, such as the deployment of digital IDs and digitalisation efforts. Resolving these issues is essential if the UK government wants to achieve its goal of widely deploying AI to improve public services.

The UK ranks seventh in the most recent E-Government Development Index (EDGI).[53] To compare, Denmark has consistently topped the league tables since 2018, and a deep dive into the EDGI report highlights some divergence from the UK that could be the reason for Denmark's success.[54] In particular, there are three key areas where Denmark is outperforming the UK on its digital strategies: stronger coordination with all levels of government, leveraging the power of digital IDs, and using clear key performance indicators (KPIs) to track progress. Moreover, Denmark's communication of its digitalisation strategies are clear and accessible.

The UK should take inspiration from Denmark's approach to radically reimagine its digital transformation goals with a new public sector digital transformation strategy, starting with two top-level priorities. First, introduce stronger coordination between local, regional, and national layers of government; and second accelerate the creation of a UK digital ID framework.

Denmark shows much stronger coordination than does the UK between national government priorities and sub-national and local development strategies. For example, Denmark developed its Joint Government Digital Strategy (JGDS) simultaneously with its National Digital Government Strategy (NGDS).[55] The JGDS facilitates cooperation across the three levels of government (national, regional, and local). As part of this cooperation, the strategy coordinates priorities with annual budget agreements between the three levels. The JGDS crucially shares four of the same visions as the NGDS, showing a direct purpose and, more importantly, process to bringing national level agendas down to local government. Moreover, to integrate more fully national and sub-national strategies, the Danish government initiated the Danish Government Digitisation Partnership, which partnered government with 28 representatives across the Danish business community, research, and other relevant stakeholders.[56] This partnership directly fed into the NGDS, pooling together 46 recommendations from both the public and private sectors to ensure a relevant, up-to-date, and feasible strategy.

In contrast, the UK created its "Transforming for a digital future: 2022 to 2025 roadmap for digital and data," a roadmap that only directly applies to central government departments.[57] Moreover, according to the UK EDGI report, each level of government is disconnected from the other, each government organisation has its own set of digital officers, and each department has its own budget for digital transformation activity.[58] Central government digital activity is also separate from local government initiatives, and devolved governments such as Scotland, which has its own digitalisation strategy.[59] This lack of coordination is unnecessarily delaying the crucial progress needed to digitalise public services across the UK, leading to inefficient, inaccessible interactions with citizens that are not fit for purpose. COVID-19 demonstrated this fragmentation when two separate systems were used in England and Scotland to track and record COVID-19 vaccinations. To rectify this lapse in coordination, the UK government should reimagine its new public sector digital transformation strategy to include clear KPIs, introduce stronger leadership mechanisms for the Central Digital and Data Office (CDDO) to spearhead the strategy, and centralise the strategy across all levels of government, paying special attention to devolved responsibilities.

First, **the UK needs a revitalised public sector digital transformation strategy that contains KPIs to keep accountability and track progress.** Indeed, according to the National Audit's 2021 report on the challenges in implementing digital change, previous attempts at digital transformation lacked specificity.[60] This would be rectified by introducing clear targets to hold ministers, parliamentarians, and civil servants accountable. Denmark employs clear KPIs for tracking progress of the NGDS. Specifically, there are 61 initiatives the NGDS highlights, including the use of health-care data and citizen-reported data to boost treatment quality in the Danish healthcare sector.[61] Other targets include a flexible and efficient framework for public procurement, green data processing and storage, and a comprehensive data roadmap for public data to drive innovation, development, and value. The UK government should likewise identify key initiatives to build strong digitalisation and data-sharing capabilities, such as with NHS, and introduce clear KPIs that measure success for that domain.

Second, to better drive a reimagined cross-party public sector digital transformation strategy, **the UK government should reaffirm CDDO as the single, leading entity that will carry forward the strategy.** CDDO holds a host of responsibilities related to digital and data functions within government, setting government's strategic direction, technology strategy, and standards.[62] This work is incredibly valuable and should be taken as a priority within all government departments working with CDDO. To better support CDDO's mission, the UK government should allocate long-term ring-fenced funding that can withstand changing budgetary pressures. This

would secure CDDO's work and enable long-term road-mapping that is necessary to instigate real change across government.

Finally, **the UK government should centralise the strategy across all levels of government, including devolved governments, by working closely with relevant country departments to align interests.** To do this, the government should begin with consultations to evaluate current gaps in digital capabilities with devolved, regional, and local governments. This should also serve to make known who should be responsible for implementing aspects of the digital transformation strategy at the different levels, as well as ensure that all areas of government, and not exclusively central government, understand the overall strategy mission. Similarly, the UK should consult with a mixture of public and private sector organisations to form specific recommendations and initiatives that support secure data sharing. Once drawn up, the UK government should also communicate this strategy clearly online, streamlining previous initiatives and roadmaps into a single source that articulates the purpose, process, KPIs, and ongoing outcomes and achievements of the new strategy.

It is promising that the UK government has maintained the digital verification services provisions of the DPDI Bill in the new DUA Bill, which should contribute to the acceleration of a digital identity framework. This should act as the cornerstone for efficient, seamless access to public services, leveraging the single-source-of-truth principle, and building trust between both public authorities and citizens. Denmark leverages the power of electronic IDs (eIDs) to ensure seamless digital interactions with broader public services, maintain single-source-of-truth principles, and improve the reuse of basic information.[63] Almost all public services are accessible through an eID, and a stated priority in Denmark's EDGI report is to make digital services as easy and convenient as possible to use.[64] By allowing for better, secure information sharing between public authorities, the eID serves as a key for both citizens and businesses to access public digital services across all levels of government.

The UK offers a limited service, with some work being done by the previous government to instigate a UK digital identity and attributes trust framework.[65] However, this work is not nearly as extensive, and therefore not nearly as powerful, as the eIDs rolled out in other European countries, including Belgium, Finland, and Ireland.[66] The DUA Bill is a good start but currently insufficient to tackle the needs of a growing digital economy that would benefit immensely from streamlined data sharing rooted in a trusted digital ID framework. **The new government should build on the digital identity trust framework to develop a fully fledged digital ID framework that reduces barriers for citizens to access crucial public services.**

The new government has a real opportunity to lead in public sector digitalisation. By 2029, the UK should be the leading data-driven economy, and rank first across the UN member states for e-government services. To achieve this, the UK government needs to take drastic measures, and the recommendations herein offer a starting to point.

CONCLUSION

The UK stands at a critical moment when embracing digital transformation, AI, and data innovation is not just an opportunity but also a necessity. By implementing forward-thinking policies, the UK can not only drive economic growth but also position itself as a global leader in emerging technologies. These changes are essential to foster productivity and growth in a rapidly evolving global economy. Now is the time for bold action to ensure that the UK capitalises on its strengths and avoids falling behind.

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The Center for Data Innovation studies the intersection of data, technology, and public policy. With staff in Washington, London, and Brussels, the Center formulates and promotes pragmatic public policies designed to maximize the benefits of data-driven innovation in the public and private sectors. It educates policymakers and the public about the opportunities and challenges associated with data, as well as technology trends such as open data, artificial intelligence, and the Internet of Things. The Center is part of the Information Technology and Innovation Foundation (ITIF), a nonprofit, nonpartisan think tank.

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