UK NATIONAL DATA STRATEGY

Issued 2 December 2020

ICAEW welcomes the opportunity to comment on the UK National Data Strategy published by Department for Culture, Media and Science on 9 September 2020, a copy of which is available from this link.

This response of 2 December 2020 has been prepared by the ICAEW Tech Faculty. Recognised internationally for its thought leadership, the faculty is responsible for ICAEW policy on issues relating to technology and the digital economy. The faculty draws on expertise from the accountancy profession, the technology industry and other interested parties to respond to consultations from governments and international bodies.

ICAEW is a world-leading professional body established under a Royal Charter to serve the public interest. In pursuit of its vision of a world of strong economies, ICAEW works with governments, regulators and businesses and it leads, connects, supports and regulates more than 156,000 chartered accountant members in over 149 countries. ICAEW members work in all types of private and public organisations, including public practice firms, and are trained to provide clarity and rigour and apply the highest professional, technical and ethical standards.

KEY POINTS

1. We recognise the enormous potential benefits from data for government and the wider economy and therefore welcome this strategy which specifically targets data. It is fundamental to the future of the economy to get the right building blocks in place to enable the realisation of these benefits. The role of data in underpinning current AI technologies emphasises the importance of the topic.

2. However, the government needs to inject a sense of urgency into delivering the strategy. Many of the issues highlighted by the strategy – such as skills, access to data and data quality – are long standing issues which have not to date been addressed adequately by government despite previous initiatives. As a result, the government needs to show urgency and commitment to delivering change in practice. On this basis, we welcome recent announcements regarding the stronger role of the Cabinet Office in this area and the recruitment of a Chief Data Officer for the government.

3. We also believe that greater emphasis should be placed on the benefits to citizens and the public interest, and the need to develop a citizen-centric approach to data. This closely aligns with the trust agenda as building trust is highly context specific, and citizens' acceptance of data uses will vary depending on what the government is trying to do. Therefore, further consideration should be given to how best to incorporate the priorities and views of citizens into the strategy, and ensuring sufficient transparency and confidence in the purpose and objectives of government use of data.

4. In terms of the wider economy, the government is the biggest owner of data in the country and therefore can play a leadership role, being an exemplar in good practice, sharing its experience, and being at the forefront of thinking about how to enable safe, secure and trusted data sharing. There are also some specific types of support that it can give, such as funding innovations in data access across sectors.

5. However, to have the best chance of success, the data strategy needs to link to many other elements as data does not exist in isolation. Data fundamentals, for example, will be improved by wider digitalisation of processes. Trust will benefit from strong cyber security. Transformation requires a range of cultural, organisational and people change. Some of these connections are made by the strategy but further consideration should be given, especially to the dependency on digitalisation or digital transformation in organisations.

ANSWERS TO SPECIFIC QUESTIONS

Question 1. To what extent do you agree with the following statement: Taken as a whole, the missions and pillars of the National Data Strategy focus on the right priorities. Please explain your answer here, including any areas you think the government should explore in further depth.

6. We somewhat agree with the statement. The missions and pillars that are outlined in the strategy are all important and it is right for the government to focus on them.

7. We would suggest some review of the detailed wording of the pillars so that they are absolutely clear and focused. For example, there seems to be some overlap, with language such as 'accessible and reusable data' used in both 'data foundations' and 'data accessibility'. We would also question the use of the term 'responsible data'. Data itself is neither responsible nor irresponsible, and this pillar would be stronger with greater emphasis on people eg, 'the responsible **use** of data'

8. Defining the scope of a data strategy is challenging, given the wide range of dependencies and interconnectivities with other activities. However, we recommend a number of clear connections with other areas are made to give the strategy the best chance of success.

9. For example, the strategy appears to be limited to relatively technical matters, such as data governance and technical skills. Good use of data, though, depends on significant changes in culture and behaviour. In particular, successful organisations in this context enable cross-departmental working and are not limited by structural siloes. Staff are empowered to use data to solve problems and identify new ideas, not simply report what has happened. Our recent report on Automation in finance functions highlights the importance of a mindset shift to achieve the benefits of digital transformation in practice. Therefore, the government needs to recognise the need for deep organisational and culture change alongside the more technical aspects of data and data use.

10. There is also a need to connect the data strategy with other elements of government digital strategy, including the cyber security strategy, the digital skills agenda and wider digitalisation strategies. The quality and accessibility of data, for example, is strongly associated with the modernity of the computer systems in place and increased automation. Therefore, delivering on pillars such as data foundations will be strongly dependent on successful digitalisation more broadly.

11. Most importantly, though, the government needs to inject a sense of urgency into making some of these changes happen and delivering on better use of data in practice. While a high-level strategy and framework is important for setting out key ideas, prioritising actions and having a consistent approach, it needs to get on with delivering improvements quickly. In our view, this needs to be based on selecting projects which will make a big and noticeable difference to the lives of citizens, such as having a proper 'one-touch' experience with government agencies.

Question 2. We are interested in examples of how data was or should have been used to deliver public benefits during the coronavirus (COVID-19) pandemic, beyond its use directly in health and social care. Please give any examples that you can, including what, if anything, central government could do to build or develop them further.

For question two, we are only looking for examples outside health and social care data. Health and social care data will be covered in the upcoming Data Strategy for Health and Social Care.

12. The delivery of financial support packages was impacted by differences in data which were available to HMRC. The government was able to help more employees in a more targeted manner because it had up to date information about where and when employees worked and their income levels. Introduced in 2013, the Real Time Information (RTI) system introduced a compulsory requirement for employers to report payments to employees on or before the time each payment is made. Although there were some employees who lost out, the Coronavirus Job Retention Scheme had far better data to enable targeting of its support than the Self-Employed Income Support Scheme.

13. Self-employed people report their income through the self-assessment system once a year on 31 January after the end of the tax year. Even for a business which prepares its accounts for receipts and payments made in the actual tax year, so those with a year ended 5 April, the most up to date information to hand in March 2020 when the pandemic struck the UK would have been for the period 6 April 2018 to 5 April 2019. This was required to have been submitted by 31 January 2020. Potentially this may not give an accurate reflection of the state of the business' profitability today.

14. A new unincorporated business does not have to tell HMRC it is trading until 5 October after the end of the year in which it starts. For those registering for VAT, there will be some data available to government, but simply making VATable sales does not mean there are taxable profits. So this has meant there was no data available on which to base government support based on business profits of those who had started trading after 5 April 2019. This would also apply to new members of partnerships. A newly promoted partner would lose out twice as no longer being eligible as an employee, while not having submitted a tax return yet as self-employed.

15. Making Tax Digital will require more real time reporting by the self-employed and would certainly have helped provide more targeted support to more of the self-employed. For this to work however, the MTD data submissions for income tax self-assessment must be considered very carefully. Mere totals will not reflect the complexity of current income tax legislation which can require considerable adjustment for accruals, tax reliefs and allowances.

16. This emphasises the need to get the fundamentals right in the tax system before moving to a digital solution. Our report Digitalisation of tax: international perspectives shares some of the lessons from the digitalisation process around the world, including that simplicity drives success.

Question 3. If applicable, please provide any comments about the potential impact of the proposals outlined in this consultation may have on individuals with a protected characteristic under the Equality Act 2010?

17. Concerns about data or algorithmic bias that entrench discrimination and unfairness into data-driven decision processes are well documented and can negatively impact on individuals with a protected characteristic, even where these data points are specifically removed from the analysis. We have seen in financial services, for example, how difficult it can be to get to the heart of how decisions are being made, articulate the fair outcomes that are desired and fix these problems.

18. It is also important to recognise the risks of digital exclusion. Where citizens are not using digital technologies or engaging in digital services, they will not be generating data and may become invisible when greater reliance is put on data-driven services or decisions. While there are a variety of reasons why citizens may not use digital technologies, many may be closely associated with characteristics such as disability or age. Therefore, the government also needs to be very conscious of the risks of excluding such citizens and design systems, algorithms and decision-making so that they take account of data that they may not have, as well as the data that they do have.

19. Given the impact of decisions made by government and public bodies on the lives of citizens, it is imperative that government puts these risks of bias and exclusion at the heart of its data strategy. We welcome the fact that ethics and the responsible use of data are one of the pillars of the strategy and recommend that the government ensure that these issues are fully considered. Our recent report on the Risk and assurance of emerging technology outlines some of these risks in more detail, and highlights the range of mitigation measures, such as design, controls and assurance, that can be used by organisations.

Question 4. We welcome any comments about the potential impact of the proposals outlined in this consultation on the UK across all areas, and any steps the government should take to ensure that they take account of regional inequalities and support the whole of the UK?

20. No comment.

Question 5. Which sectors have the most to gain from better data availability? Please select all relevant options listed below, which are drawn from the Standardised Industry Classification (SIC) codes.

21. All sectors will benefit from better data availability although the nature of the benefits will clearly vary across industry sectors.

22. Within the professional services sector, and specifically accountancy, innovation has been hampered by a lack of standards and data accessibility across services such as audit. Given the wide range of software used by businesses, extracting data from clients to enable the delivery of professional services has required a lot of work and specialist skills. Making that process easier should encourage more innovation and competition in the marketplace.

23. Initiatives such as Engine B, with which ICAEW is closely involved, can play an important role in this context. Engine B is creating common data models so that innovators and firms can all work with the same data definitions, as well as a platform for accessing data.

Question 6. What role do you think central government should have in enabling better availability of data across the wider economy?

24. Central government can play a major role in improving data availability across the wider economy. First and foremost, it has the largest amount of data of any organisation in the country and therefore can play a key role as an exemplar of good practice. Given the sensitivity of a lot of the citizen data that it holds, it should be at the forefront of thinking about how to enable safe, secure and trusted data sharing or access to the benefit of other organisations.

25. Central to this is having a framework for providing government data to third parties, and deciding where data should be open and made freely available to third parties, and where it should be licenced at a cost. There are arguments for both approaches in terms of value for taxpayers, but different imperatives will apply to different types of data, for example depending on how expensive it is for taxpayers to collect and maintain or on the commercial value of the data.

26. The government can provide funding to support innovation in this area. Building business models around data access and standardisation is difficult, as benefits tend to be dispersed among many participants. The Innovate UK Next Generation Services project recognised the need for solutions to increase data access in order to support innovation with data and AI in professional services. As a result, it funded a competition for data access innovation across the legal, accountancy and insurance sectors, which has supported a number of different initiatives, including Engine B, and may provide lessons for other sectors.

27. Many barriers to data sharing or access are also regulatory, or at least perceived in this way. There is unsurprisingly a lot of concern around personal data, and the application of GDPR in particular, which tends to discourage people from sharing it, even in cases where it would be acceptable. Fear and lack of understanding in this context can limit innovation in practice. Therefore, ensuring regulatory clarity and providing clear pathways or guidance to sharing or providing access to data is a key role of government and regulatory bodies.

Question 6a. How should this role vary across sectors and applications?

28. No comment

Question 7. To what extent do you agree with the following statement: The government has a role in supporting data foundations in the wider economy. Please explain your answer. If applicable, please indicate what you think the government's enhanced role should be.

29. We somewhat agree with this statement.

30. We agree that data foundations are a significant issue for businesses in making good use of data. Anecdotal evidence from our members highlights the amount of time that needs to be spent on tasks such as data cleansing, standardisation, extraction and formatting before any analysis can be done. This is a huge waste of time and resources, discourages businesses who do not have the skills to do this work and significantly limits the benefits that are realised from data in practice

31. While the government's ability to help individual businesses to improve their data foundations and quality is limited, there are none-the-less steps that government can take that can make a difference. As noted earlier, as the largest possessor of data, government can become an exemplar of good data practices, which can be shared more generally with businesses. By improving the quality of government data, and demonstrating the value that data can bring in tangible ways to businesses, this can encourage others to be more proactive around their data.

32. Moving to digital filings also helps businesses to build the right disciplines to make sure that data is correct. Digital filing processes, delivered through programmes such as Making Tax Digital, can force businesses to adopt new systems and digitalise their processes. This alone is likely to improve the quality of data available to businesses, and, if this provides benefits, may encourage them to invest in other new systems. Opportunities to push this agenda further forward therefore should be at the forefront of government's mind, as this can encourage good practices more generally.

33. However, in order to see substantial improvements to data, the government needs to link to wider efforts to digitalise business processes. Businesses will improve their data foundations most easily by migrating to more modern systems, and away from manual processes and legacy systems which are often unintegrated and rely heavily on tools such as spreadsheets to pull data together. Moving into cloud accounting software, for example, provides accountants with much more automated processes, removing risks of human error and providing more up-to-date data.

Question 8. What could central government do beyond existing schemes to tackle the particular barriers that small and medium-sized enterprises (SMEs) face in using data effectively?

34. The pandemic has resulted in a big shift in use of digital technologies across the economy and this represents a unique opportunity to accelerate the digital transformation of SMEs, including their use of data. However, there are a number of barriers, such as:

- Implementing or using fit-for-purpose systems that generate good quality data
- Identifying the right tools to use for analysis
- Understanding how they can use data to improve their decisions
- Having the right skills and culture in place to make the most of data

35. While these are similar to the challenges for larger business, SMEs typically lack the time and resources, and find it hard to prioritise technological change. Furthermore, the software market does not always serve SMEs well. While cloud applications can enable small businesses to access software capabilities that would previously have been unaffordable, medium-sized businesses in particular can find the transition to new systems extremely challenging.

36. Having engaged with our members in SMEs for many years on topics such as 'big data', we recognise that 'data' is an abstract concept for them. Businesses use data to solve problems, manage their risks better and make better decisions, but often don't know where to start with

'data' in the abstract. Therefore, where government is looking to provide more help to smaller businesses, they should focus on specific business problems which data can help with, such as engaging with customers better or managing supply chains.

Question 9. Beyond existing Smart Data plans, what, if any, further work do you think should be done to ensure that consumers' data is put to work for them?

37. No comment.

Question 10. How can the UK's data protection framework remain fit for purpose in an increasingly digital and data driven age?

38. The key principles in place today remain relevant but will continue to need to be applied in new contexts. The overriding challenge will remain balancing the need for trust and confidence around data with encouraging innovative uses of data and data-driven services. Individuals, society and the economy will benefit greatly from new uses of data but this will depend on gaining their trust in how data is being used. In our experience, businesses are looking for guidance from regulators and others around the detailed application of these principles, and a clear steer on what actions are acceptable. This kind of broad engagement and practical discussion should be encouraged and prioritised.

39. We also recognise that while the current regulations have had a significant impact in improving cyber security and data protection practices in businesses, they have imposed a burden especially on smaller businesses. Future measures should focus on proportionality and consider other incentives, such as kitemarks or standards, as a way of further improving business practices in this area. This should focus on helping businesses to put good privacy practices at the heart of their business models and organisational culture rather than seeing privacy as a matter of compliance or box-ticking.

Question 11. To what extent do you agree with the functions set out for the Centre for Data Ethics and Innovation (CDEI) - AI monitoring, partnership working and piloting and testing potential interventions in the tech landscape? Please explain your answer.

40. We welcomed the establishment of the CDEI and have constructively engaged with them over the last few years, particularly around the risks of algorithmic bias in financial services. The work they have done to develop the AI barometers have provided a useful snapshot of the status of different sectors, and should provide further insights in the future.

41. However, the remit of the CDEI is broad and while it has been helpful to build general understanding of issues and bring together different stakeholders, it has struggled to gain traction on specific interventions. A stronger focus on the desired outcomes from any regulatory interventions may be helpful in this context.

Question 11a. How would a change to statutory status support the CDEI to deliver its remit?

42. A change to statutory status may help to clarify the purpose and desired outcomes. This may also help to differentiate the role of the CDEI from other government bodies that are looking at innovation and regulation in new technologies such as AI.

Question 12. We have identified five broad areas of work as part of our mission for enabling better use of data across government:

- *Quality, availability and access*
- *Standards and assurance*

- *Capability, leadership and culture*
- *Accountability and productivity*
- *Ethics and public trust*

We want to hear your views on any actions you think will have the biggest impact for transforming government's use of data

43. Government is the biggest owner of data in the UK and has yet to make the most of this opportunity. It is widely recognised that better use of data by government could enhance policy making, increase accountability and improve the efficiency and effectiveness of public services.

44. All of these five elements are important for government to make better use of data. In our view, though, there should be three priorities:

   - Enabling data to be shared across government departments
   - Ensure the right safeguards are in place so that the public trust government use of data
   - Demonstrate the benefits to citizens and the public interest from using data, and show that it has not been used for political objectives

45. While there is, rightly, a lot of focus on the technical aspects of data, bringing the public along on the data journey is absolutely vital. This has strong connections to ethics and trust, and we welcome the strategy's emphasis of this. However, we believe that greater emphasis should be placed on the benefits of using data and having transparency around the government's objectives. Building trust is highly context specific, and citizens' acceptance of data uses will vary depending on what the government is trying to do. Therefore, building a citizen-centric approach, which puts the citizen and public interest at the heart of all data use, needs to be core to the culture and delivery of change.

46. In addition, there should be an urgency to government in implementing this strategy. Discussions have been ongoing for a long time, with limited change happening in practice. No strategy will be perfect and many of the tensions inherent in data use – for example balancing innovation and access to data with privacy and trust in data – need to be resolved in the context of practical questions.

47. This needs an approach which focuses on small steps, trying things out, learning from experience and communicating clearly with citizens about any new uses of data. Starting with quick wins can build confidence and track records of what is possible, enabling departments to build out from there. However, continuing failure to deliver puts the public sector further and further behind what is happening elsewhere, and misses out on many opportunities.

Question 13. The Data Standards Authority is working with a range of public sector and external organisations to create a pipeline of data standards and standard practices that should be adopted. We welcome your views on standards that should be prioritised, building on the standards which have already been recommended.

48. No comment.

Question 14. What responsibilities and requirements should be placed on virtual or physical data infrastructure service providers to provide data security, continuity and resilience of service supply?

49. No comment.

Question 14a. How do clients assess the robustness of security protocols when choosing data infrastructure services? How do they ensure that providers are keeping up with those protocols during their contract?

50. This is a significant challenge for businesses of all sizes. Smaller businesses are likely to be reliant on whatever information vendors make available on their security protocols. While we recommend strongly that businesses look at this information closely, to manage their own cyber security risks, it is likely to be impossible in practice to get beyond the surface. Larger businesses clearly have more financial power that they can exercise and have more chance of being able to ask more detailed questions or seek further assurance. However, in practice that may still be difficult.

51. Adherence to standards and undertaking assurance processes clearly can help to provide a structured approach and more transparency. Further work here would help to ensure greater clarity and consistency on standards and we recommend that this is looked at in detail in the cyber security strategy.

Question 15. Demand for external data storage and processing services is growing. In order to maintain high standards of security and resilience for the infrastructure on which data use relies, what should be the respective roles of government, data service providers, their supply chain and their clients?

52. No comment.

Question 16. What are the most important risk factors in managing the security and resilience of the infrastructure on which data use relies? For example, the physical security of sites, the geographic location where data is stored, the diversity and actors in the market and supply chains, or other factors.

53. No comment.

Question 17. Do you agree that the government should play a greater role in ensuring that data does not negatively contribute to carbon usage? Please explain your answer. If applicable, please indicate how the government can effectively ensure that data does not negatively contribute to carbon usage

54. We strongly agree that the government can play an important role here, and it should consider two elements. First, data will play an enormous part in combating climate change and therefore data needs to be at the heart of government environment strategies. But of course, data centres, devices and networks have a significant carbon footprint and therefore this cost needs to be balanced against the great benefits that data will bring. As a result, this is another connection that the data strategy needs to make.

55. In terms of action, the tech sector should follow any climate-related disclosure requirements that the government or regulators develop to increase transparency around managing carbon risks and moving towards a net zero goal. In doing this, they need to consider the implications of their entire supply chain.

56. As a large owner of data, the government can again showcase good practice in this context, for example by developing approaches to measuring carbon footprints around data and the supporting infrastructure and apps. Currently, this is hard to do and there are no clear standards.

57. Government is also a large buyer of services related to data – including data centres – and should embed consideration of vendors' climate strategy and actions into procurement processes. Requiring bidders to comply with Cyber Essentials has had an impact and

resulted in improved cyber hygiene in some companies. The government can use its buying power to ensure that suppliers are appropriately focused on their carbon footprint around data.

Question 18. How can the UK improve on current international transfer mechanisms, while ensuring that the personal data of UK citizens is appropriately safeguarded?

58.   No comment.

Question 19. What are your views on future UK data adequacy arrangements (eg, which countries are priorities) and how can the UK work with stakeholders to ensure the best possible outcome for the UK?

59.   We recommend that the focus should be on countries with which the UK has the biggest data exchange. This would start with the EU, and be followed potentially by Switzerland and the US. India would also be useful, given the amount of outsourcing that takes place to India.