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# Successful procurement digitalisation requires more data, in-house expertise, and improved governance mechanisms

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## About the research

Around one third of public sector spending goes to procure third-party goods, services, and works. Procurement rules and policies seek to ensure that contract awards are free from corruption, conflicts of interest or anticompetitive practices, and that these vast sums of public funds generate value for money and support social, environmental, and innovative practices.

There is always room for improvement. The adoption of digital technologies is seen as a strategic catalyst for procurement and broader public sector reform. Digitalisation could reduce the administrative burden through procurement automation, generate data insights to inform policies and boost efficiency in public spending, and serve as a living lab for GovTech experimentation.

However, such transformative potential generates hype and excessive expectations on the true size and nature of the achievable improvements. It also tends to overshadow the required groundwork and preparatory investment. New digital governance risks and requirements are not always recognised or understood. The growing public sector digital capability gap raises further obstacles.

Heightened expectations and a minimisation of the challenges can get on the way of successful reform. This research funded by the British Academy applies an innovative technology-centred methodology to assess the opportunities and challenges of procurement digitalisation, drawing from emerging evidence on experimental and pilot projects across the world.

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## Policy implications

Decisionmakers seeking to facilitate procurement digitalisation should:

- Accelerate the implementation of a single state-of-the-art procurement data standard across all levels of the public sector and create data platforms and other solutions (e.g. application programming interfaces, APIs) to facilitate access and re-use of that data.
- Establish a robust information management system to handle multi-tiered access to different types of information at different times, by different stakeholders and under different conditions, and distinguish between information proactively published as open data and information subjected to controlled access.
- Significantly invest in building up in-house digital capabilities and establish an ambitious policy to incrementally reduce reliance on outside provision of digital consultancy services.
- Establish a robust process of technological scrutiny of new projects for the adoption of digital technologies, including explicitly assessing key issues of data quality, technical debt, and institutional maturity before proceeding to concept or pilot stages.
- Clarify the regulatory framework controlling the identification and mitigation of new governance risks, such as data governance, algorithmic transparency, and cybersecurity.
- Embed impact assessments and subject them to external scrutiny by an 'AI in the public sector Authority'.

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## Key findings

High quality data is a pre-requisite for digitalisation, but there are ongoing data issues, including difficulties in rolling out open data standards, capturing historical information, or accessing relevant non-procurement data (e.g. beneficial ownership data), including data held by the private sector.

The scope for the implementation of digital technologies is narrower than it may seem:

- Only rigid, highly structured processes can be automated, but most procurement decisions involve discretion, which is not easily or at all translatable into machine-processable rules.
- Some technologies can operate without explicit rules (e.g. 'black-box algorithms'), but they are incompatible with the duty to give reasons for specific procurement decisions.
- There are significant and potentially insurmountable constraints in the development of advanced tools such as recommender systems, or chatbots—except in closed procurement settings (e.g. framework contracts) or for basic information signposting.
- Distributed ledger technologies (such as blockchain) offer limited functionality in the highly centralised information setting of procurement.

Digitalisation creates new governance risks, including:

- Data and algorithmic transparency governance risks, including management of differential access to data subject to third-party rights (such as IP or commercial confidentiality).
- Technological risks, including vendor lock-in, technical debt, and operational dependency.
- Systems integrity risks, including increased cybersecurity risks.

Digitalisation requires much increased digital capabilities in the public sector. Limited capability reduces the chances of progressing digitalisation and reaping its benefits. It also compounds governance risks as the likelihood of materialisation of data, systems integrity, and cybersecurity risks grows with reduced digital capability. Despite providing a quick, but not cheap, short-term solution, engaging digital consultants can further erode public sector capability in the long run.

Managing procurement digitalisation requires developing and embedding improved governance mechanisms, including new forms of impact assessment at different stages of the procurement process. It also requires external oversight by an 'AI in the public sector Authority' (AIPSA).

## Further information

For a full analysis:

Digital procurement as a case study on 'policy irresistibility'

Digital procurement: drawing a technological feasibility boundary

Emerging risks in digital procurement governance

Governing the assessment of taking of risks in digital procurement governance

Watch a panel discussion of this research

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## Contact the researchers

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